TRANSMISSION CORPORATION OF TELANGANA LIMITED

From
Chief Engineer,
Construction,
TS TRANSCO, Vidyut Soudha,
Hyderabad – 500 082.

To:
M/s Reliable Electricals,
H. No. 114-115/402 B,
B R Towers,
Sanjeeva Reddy Nagar,
Hyderabad – 500 038

Contract Award PO No:0282 /CPT 320/SE(Const)/ Shifting of 132 KV Manuguru – Kamalapur
DC line in BTPS /RM.No:0266 /19,Dt:05.02.2019.

Sirs,

Sub:- DC work - Specification No. T.S.No. TST-Const-e-18/2018-19 - Supply, erection, testing and commissioning of Shifting of existing 132 KV Manuguru – Kamalapur DC line from Loc No. 147 to 153 (4KM) to outside of the Block-II in Ash Dyke area at BTPS (Bhadradri Thermal Power station 4x270 MW) in Khammam District on turnkey basis - Detailed Contract order for Material (Schedule-A) –Issued- Regarding.

2. Tender specification No. T.S.No. TST-Const-e-18/2018-19,
3. Your Bid offer against the Tender Specification No. T.S.No. TST-Const-e-18/2018-19,

I, acting for and on behalf of and by the order and direction of the Transmission Corporation of Telangana Limited (herein after referred to as ‘TSTRANSCO’), accept your offer given in the reference (3) & (4) cited, for supply, erection, testing and commissioning of Shifting of existing 132 KV Manuguru – Kamalapur DC line from Loc No. 147 to 153 (4KM) to outside of the Block-II in Ash Dyke area at BTPS (Bhadradri Thermal Power station 4x270 MW) in Khammam District on turnkey basis as per Terms & Conditions of Tender Specification No. T.S.No. TST-Const-e-18/2018-19 and award the Contract for a total value of Rs. 1,70,79,596.00 (Rupees One Crore Seventy Lakh Seventy Nine Thousand Five Hundred and Ninety Six Only) as detailed in the Schedule-A enclosed, subject to the conditions set out in this Order. This Order confirms the Letter of Intent issued vide this office letter cited under reference (5).

2. SCOPE OF CONTRACT:

This Order relates to the supply, erection, testing and commissioning of Shifting of existing 132 KV Manuguru – Kamalapur DC line from Loc No. 147 to 153 (4KM) to outside of the Block-II in Ash Dyke area at BTPS (Bhadradri Thermal Power station 4x270 MW) in Khammam District on turnkey basis as per Terms and Conditions of Tender Specification No. T.S.No. TST-Const-e-18/2018-19 except those modified in this order. The rates indicated in Schedule-A appended to this Order are for Supply of equipment/material inclusive of all taxes and duties, as per your offer vide reference (3) & (4) cited. The material that is to be supplied by you shall be delivered at the places of work sites. Any surplus material to be returned by you shall also be devaluated at Construction Stores, Erragadda / Shapurnagar TSTRANSCO at your cost.
3. **ABSTRACT OF SCHEDULES:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material Supply (Schedule – A)</td>
<td>Rs. 1,70,79,596.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Rs. 1,70,79,596.00</strong></td>
</tr>
</tbody>
</table>

The accepted Tender percentage is on par with Estimated Contract Value (Schedule-A).

4. **GENERAL CONDITIONS :**

Except where otherwise agreed to in this acceptance letter, all the Terms and Conditions stipulated in the Specification No. T.S.No. TST-Const-e-18/2018-19 are binding on you and these shall form part of this contract.

5. **STANDARD OF MATERIAL:**

The material/ equipment to be supplied under the contract shall be in accordance with the Tender Specification and the latest scientific and technical standards.

6. **PRICES:**

In respect of items covered under Schedule-A, price variation is applicable for Transmission line towers, Substation structures, power conductor, cables and isolators. The rates for all the remaining items of Equipment & Materials covered in Schedules-A are firm on all accounts such as increase in quantity of Equipment / Materials over that provided in the Contract, execution of Contract beyond the scheduled completion/ delivery period for whatever reasons, increase in the rates of material and labour both during and beyond the Completion Period etc.

7. **PRICE VARIATION (PV) Clause:** *The price variation is applicable for Transmission Line Tower Parts, Substation Structures, Cables, Isolators and Conductors in materials schedule and the calculation of Price Variation is as below.*

7.1.1 The price adjustment applicable in respect of the items Transmission Line Tower Parts, Substation Structures and Earth Flat is as per T.O.O (CE-Const.) MS. No 50, Dt. 10.06.2008 and TOO (CE-Const.) Ms. No.87 Dt. 29.07.2008 and TOO (CE-Construction-2) Ms. No.242 Dt. 08.11.2012 subject to the following conditions.

   a) The price adjustment shall be applicable within original contract period or period extended on grounds of the departmental delays and valid reasons and shall not be applicable to the extension granted on account of the Contractor’s fault

   b) Price adjustment shall be applicable for actual components of items of supply actually carried out. The price variation formula is \( PV = (\text{Final Rate} - \text{Basic Rate}) \times \text{Quantity} \).

   c) The adjustment scheme will be applied where the variation is more than 5%.

   i) Thus if the price excess is 10%, payment will be made only to the extent of 5% (10%-5%) since the Contractor factors into his original bid his risk of absorbing first 5% increase. Further the same procedure should be also followed for Negative price variation.

   ii) For the time extension period due to department fault : Price variation (Both +ve and –ve) is applicable.

   iii) For the time extension period due to Contractors fault : Only –ve variation is applied.
d) The basic rates considered in the estimate are Transmission line Tower parts is Rs. 82,166/- per MT (for the month of August-2018).

e) The final rate of Transmission line tower parts, Substation structures and Flat for the purpose of price variation shall be the rate communicated by the Chief Engineer / Construction for every month as on 2 months prior to the date of dispatch and for earth flat one month prior to the date of dispatch/delivery. **The date of delivery shall be the date of receipt of materials in good condition at destination / Site stores (i.e. check measurement date as per Form-13) for the purpose of price variation calculations.**

f) The rates communicated by TSTRANSCO for Transmission Line tower parts, earth flat is exclusive of all taxes and duties. Hence, applicable taxes & duties will be given on price variation amount.

### 7.1.2 Price Variation

Price Variation is applicable in respect of Supply of conductor and the price shall be based on and subject to adjustment due to variations in the following factors:

1. **E.C. Grade Aluminum:** The ex-works cost of indigenous E.C. grade aluminum wire rod based on average price of M/s. Nalco, Balco, Hindalco, and Vedanta as given in CACMAI circulars prevailing as on 30 days prior to the Bid submission closing date as per NIT (Bid submission closing date as per NIT is 31.12.2018)

2. **HTGS wire:** The ex-works cost of per MT of HTGS wire exclusive of duties and taxes corresponding to 3.00 to 4.09mm designation as given in CACMAI circulars prevailing as on 30 days prior to the Bid submission closing date (Bid submission closing date as per NIT is 31.12.2018)

3. The above basic prices of raw materials will remain unaltered during the execution of contract.

4. For any variation up or down in the prices of raw materials as defined above, for every one rupee change in the rate of one MT of EC grade aluminum wire rod and HTGS wire the corresponding increase or decrease in price per KM of finished conductor allowable shall be as given below:

<table>
<thead>
<tr>
<th>Conductor</th>
<th>Variation in Rs. Per KM of conductor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>For Aluminium</td>
</tr>
<tr>
<td>Panther ACSR</td>
<td>0.588</td>
</tr>
<tr>
<td>Zebra ACSR</td>
<td>1.185</td>
</tr>
<tr>
<td>Moose ACSR</td>
<td>1.467</td>
</tr>
</tbody>
</table>

5. For the purpose of calculation of price variation the prices of HTGS wire and EC grade aluminum shall be taken as those prevailing on the first working day of the calendar month one month prior to the date of delivery.

6. **The Base and final prices / indices shall correspond to same manufacturers as given in the CACMAI. The price variation formula is PV = (Final Rate – Basic Rate) * Quantity.**

7. **The date of delivery shall be the date of receipt of materials in good condition at destination stores (i.e. check measurement date as per Form-13) for the purpose of price variation calculations.**
viii) If the delivery of the material is within the scheduled delivery period, the Price Variation applicable will be based on the actual delivery.

ix) In case the purchaser advances the delivery, the price variation applicable will be based on the actual delivery.

x) Irrespective of increase in the prices of raw materials, the total Price Increase per KM of the Conductor will be limited to a maximum of 50% over the Unit price mentioned in Purchase Order. However there is no ceiling for negative variation.

xi) The Price Variation amount can be claimed for each batch of supplies made from time to time (out of total quantity) and will be payable after due verification.

xii) In case of conductors, where the supplier makes his own arrangements to get the Rod made out of Aluminum Ingots, the prices of Aluminum Rod as per CACMAI mentioned above will only be taken into consideration for arriving at the price variation claims irrespective of whatever expenditure the supplier might have incurred in getting the ingot converted into Rod.

xiii) If the date of delivery as defined in the P.V. formula is beyond the contracted delivery date or the actual delivery date whichever is advantageous to the purchaser will form the basis for calculation of price variation.

xiv) Notwithstanding the formula applicable for regulating the price variation, if at any time any documentary evidence proof or certificate in regard to the price variation bills is required by the purchaser, the supplier will have to furnish the same to the purchaser.

xv) The concerned Executive Engineer/Construction will calculate the price variation.

7.1.3 Price variation clause for cables and isolators:

7.1.3.1 The Price Variation applicable in respect of cables and Isolators is subject to the following conditions:

a) Price variation shall be applicable for both upward and downward variation in prices of respective items within the original Completion Period. Price variations for all cables and isolators have been adjusted with IEEMA.

b) The price quoted/accepted shall be based on the input cost of raw materials/ components and labour cost as on the date of quotation and the same is deemed to be related to prices of raw materials and all India average consumer price index number for industrial workers as specified in the price variation clauses given below in case of any variation in these raw materials prices /indices, the price payable shall be subject to adjustment up or down in accordance with the formulae mentioned below.

c) For the purpose of Price adjustment, the date of delivery shall be the date on which the cable is notified as being ready for inspection / dispatch. (In the absence of such notification, the date of manufacturer’s dispatch note shall be considered as the date of delivery) or the contracted delivery date (including any agreed extension thereto) whichever is earlier.

d) The price variation amount can be claimed for each batch of supplies made from time to time (out of total quantity) and will be payable after due verification.
e) If the date of delivery as defined in the P.V. formula is beyond the contracted delivery date, the contracted delivery date or the actual delivery date whichever is advantageous to the TSTRANSCO will form the basis for calculation of price variation.

f) The total adjustment for Control cables, LT Aluminum power cable and Isolators shall be subject to a maximum ceiling of (+ 50%) individually of the respective Ex-works prices/bid prices (own manufactured/bought out items as the case may be). However there is no ceiling for negative variation.

g) Notwithstanding the formula applicable for regulating the price variation, if at any Time any documentary evidence proof or certificate in regard to the price variation bills is required by the TSTRANSCO, the supplier will have to furnish the same to the TSTRANSCO.

h) IEEMA indices have been taken into consideration for arriving the base rates of all cables and isolators.

7.1.4 PRICE VARIATION FORMULA APPLICABLE FOR CABLES

i) For Steel Armoured PVC Insulated Copper Control Cables:

\[ P = P_0 + CuF(Cu - Cu_0) + CCFCu(CC - CC_0) + FeF(Fe - Fe_0) \]

ii) For Unarmored PVC Insulated Copper Control Cables:

\[ FeF = 0 \]

\[ P = P_0 + CuF(Cu - Cu_0) + CCFCu(CC - CC_0) \]

Wherein,

\[ P \] = Price payable as adjusted in accordance with the above formula in Rs per Km

\[ P_0 \] = Price quoted/accepted in Rs per Km

\[ CuF \] = Variation factor for Copper applicable depending upon type and size of the cable.

\[ Cu_0 \] = Price of CC copper rods

This price is as applicable on the 1\textsuperscript{st} working day of the month, one month prior to the date of tendering.

\[ CCFCu \] = Variation factor for PVC Compound applicable depending upon type and size of the cable.

\[ CC_0 \] = Price of PVC Compound

This price is as applicable on the 1\textsuperscript{st} working day of the month, one month prior to the date of tendering.

\[ FeF \] = Variation factor for Steel for Steel Armoured PVC Insulated Copper Control Cables applicable depending upon type and size of the cable.

\[ Fe_0 \] = Price of steel strips/steel wires

This price is as applicable on the 1\textsuperscript{st} working day of the month, one month prior to the date of tendering.
Cu = Price of CC copper rods
This price is as applicable on the 1st working day of the month, two months prior to the date of delivery.

CC = Price of PVC Compound
This price is as applicable on the 1st working day of the month, two months prior to the date of delivery.

Fe = Price of steel strips/steel wires
This price is as applicable on the 1st working day of the month, two months prior to the date of delivery.

(*) Variation factor for copper conductor (CuF), PVC compound (CCFCu) for PVC Insulated Control Cables, Steel (FeF) for control cables with copper conductor is tabulated below.

TABLE - I
VARIATION FACTOR FOR COPPER CONDUCTOR (CUF)
CONTROL CABLE WITH COPPER CONDUCTOR

<table>
<thead>
<tr>
<th>No. of Cores</th>
<th>Nominal Cross Sectional Area (in Sq mm) = 2.5 Sq mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0.047</td>
</tr>
<tr>
<td>3</td>
<td>0.070</td>
</tr>
<tr>
<td>4</td>
<td>0.094</td>
</tr>
<tr>
<td>5</td>
<td>0.117</td>
</tr>
<tr>
<td>6</td>
<td>0.141</td>
</tr>
<tr>
<td>7</td>
<td>0.164</td>
</tr>
<tr>
<td>8</td>
<td>0.182</td>
</tr>
<tr>
<td>9</td>
<td>0.205</td>
</tr>
<tr>
<td>10</td>
<td>0.235</td>
</tr>
<tr>
<td>12</td>
<td>0.282</td>
</tr>
<tr>
<td>14</td>
<td>0.329</td>
</tr>
<tr>
<td>16</td>
<td>0.376</td>
</tr>
<tr>
<td>18</td>
<td>0.410</td>
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<tr>
<td>19</td>
<td>0.446</td>
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<td>20</td>
<td>0.456</td>
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<tr>
<td>27</td>
<td>0.634</td>
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<tr>
<td>30</td>
<td>0.704</td>
</tr>
<tr>
<td>37</td>
<td>0.869</td>
</tr>
<tr>
<td>44</td>
<td>1.033</td>
</tr>
<tr>
<td>52</td>
<td>1.221</td>
</tr>
<tr>
<td>61</td>
<td>1.432</td>
</tr>
</tbody>
</table>
### VARIATION FACTOR FOR PVC COMPOUND (CCFCu)
PVC INSULATED CONTROL CABLEs WITH COPPER CONDUCTOR

<table>
<thead>
<tr>
<th>No. of Cores</th>
<th>Core Size) = 2.5 Sq mm</th>
<th>Unarm</th>
<th>Arm</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0.125</td>
<td>0.139</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>0.141</td>
<td>0.157</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>0.161</td>
<td>0.179</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>0.187</td>
<td>0.206</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>0.234</td>
<td>0.260</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>0.234</td>
<td>0.260</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>0.292</td>
<td>0.325</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>0.300</td>
<td>0.335</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>0.303</td>
<td>0.337</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>0.334</td>
<td>0.371</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>0.389</td>
<td>0.409</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>0.435</td>
<td>0.458</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>0.474</td>
<td>0.500</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>0.476</td>
<td>0.501</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>0.519</td>
<td>0.546</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>0.584</td>
<td>0.615</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>0.631</td>
<td>0.664</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>0.706</td>
<td>0.743</td>
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</tr>
<tr>
<td>37</td>
<td>0.835</td>
<td>0.879</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>1.019</td>
<td>1.026</td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>1.100</td>
<td>1.158</td>
<td></td>
</tr>
<tr>
<td>61</td>
<td>1.246</td>
<td>1.312</td>
<td></td>
</tr>
</tbody>
</table>
### TABLE – III

**VARIATION FACTOR FOR STEEL (FeF)**

**PVC INSULATED CONTROL CABLES WITH COPPE CONDUCTOR**

<table>
<thead>
<tr>
<th>No. of Cores</th>
<th>Core Size = 2.5 Sq mm</th>
<th>Shape of armour</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0.277</td>
<td>W</td>
</tr>
<tr>
<td>3</td>
<td>0.289</td>
<td>W</td>
</tr>
<tr>
<td>4</td>
<td>0.314</td>
<td>W</td>
</tr>
<tr>
<td>5</td>
<td>0.342</td>
<td>W</td>
</tr>
<tr>
<td>6</td>
<td>0.379</td>
<td>W</td>
</tr>
<tr>
<td>7</td>
<td>0.379</td>
<td>W</td>
</tr>
<tr>
<td>8</td>
<td>0.456</td>
<td>W</td>
</tr>
<tr>
<td>9</td>
<td>0.275</td>
<td>F</td>
</tr>
<tr>
<td>10</td>
<td>0.325</td>
<td>F</td>
</tr>
<tr>
<td>12</td>
<td>0.342</td>
<td>F</td>
</tr>
<tr>
<td>14</td>
<td>0.360</td>
<td>F</td>
</tr>
<tr>
<td>16</td>
<td>0.372</td>
<td>F</td>
</tr>
<tr>
<td>18</td>
<td>0.350</td>
<td>F</td>
</tr>
<tr>
<td>19</td>
<td>0.397</td>
<td>F</td>
</tr>
<tr>
<td>20</td>
<td>0.400</td>
<td>F</td>
</tr>
<tr>
<td>24</td>
<td>0.475</td>
<td>F</td>
</tr>
<tr>
<td>27</td>
<td>0.478</td>
<td>F</td>
</tr>
<tr>
<td>30</td>
<td>0.503</td>
<td>F</td>
</tr>
<tr>
<td>37</td>
<td>0.548</td>
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<tr>
<td>44</td>
<td>0.601</td>
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<tr>
<td>52</td>
<td>0.641</td>
<td>F</td>
</tr>
<tr>
<td>61</td>
<td>0.685</td>
<td>F</td>
</tr>
</tbody>
</table>

**iii) For Aluminium conductor PVC Insulated Cables:**

\[
P = P_0 + AIF (AI - AIo) + CCFAI (CC - CCo) + FeF (Fe - Feo)
\]

Wherein,

\[
P_0 = \text{Price quoted/accepted in Rs per Km}
\]

\[
P = \text{Price payable as adjusted in accordance with the above formula in Rs per Km}
\]

\[
AIF = \text{Variation factor for Aluminium applicable depending upon type and size of the cable.}
\]

\[
AIo = \text{Price of EC grade aluminium rods (properzi rods)}
\]

This price is as applicable on the 1\textsuperscript{st} working day of the month, one month prior to the date of tendering.

\[
CCFAI = \text{Variation factor for PVC Compound applicable depending upon type and size of the cable.}
\]

\[
CCo = \text{Price of PVC Compound}
\]

This price is as applicable on the 1\textsuperscript{st} working day of the month, one month prior to the date of tendering.
AI = Price of EC grade aluminium rods (proper zi rods)
This price is as applicable on the 1st working day of the month, two months prior to the date of delivery.

CC = Price of PVC Compound
This price is as applicable on the 1st working day of the month, two months prior to the date of delivery.

(*) Variation factor for Aluminum (AIF), PVC compound (CCFAI) for PVC Insulated Power cables, Steel (FeF) for PVC Insulated Power cables with Aluminum conductor is tabulated below.

**TABLE – IV**
VARIATION FACTOR FOR ALUMINIUM (AIF) POWER CABLES WITH ALUMINIUM CONDUCTOR

<table>
<thead>
<tr>
<th>Nominal Cross Sectional Area (in Sq mm)</th>
<th>3.5 core</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 /16</td>
<td>0.262</td>
</tr>
<tr>
<td>35 /16</td>
<td>0.345</td>
</tr>
<tr>
<td>50 /25</td>
<td>0.478</td>
</tr>
<tr>
<td>70 /35</td>
<td>0.687</td>
</tr>
<tr>
<td>95 /50</td>
<td>0.949</td>
</tr>
<tr>
<td>120 /70</td>
<td>1.221</td>
</tr>
<tr>
<td>150 /70</td>
<td>1.464</td>
</tr>
<tr>
<td>185 /95</td>
<td>1.861</td>
</tr>
<tr>
<td>225/120</td>
<td>2.287</td>
</tr>
<tr>
<td>240 /120</td>
<td>2.421</td>
</tr>
<tr>
<td>300 /150</td>
<td>3.033</td>
</tr>
<tr>
<td>400 /185</td>
<td>3.873</td>
</tr>
</tbody>
</table>

**TABLE – V**
VARIATION FACTOR FOR PVC COMPOUND (CCFAI) PVC INSULATED 1.1 KV POWER CABLES WITH ALUMINIUM CONDUCTOR

<table>
<thead>
<tr>
<th>Nominal Cross Sectional Area (in Sq mm)</th>
<th>3.5 core</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unarm</td>
</tr>
<tr>
<td>25</td>
<td>0.422</td>
</tr>
<tr>
<td>35</td>
<td>0.489</td>
</tr>
<tr>
<td>50</td>
<td>0.613</td>
</tr>
<tr>
<td>70</td>
<td>0.707</td>
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<tr>
<td>95</td>
<td>0.908</td>
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<td>120</td>
<td>1.024</td>
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<td>150</td>
<td>1.289</td>
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<tr>
<td>185</td>
<td>1.499</td>
</tr>
<tr>
<td>225</td>
<td>1.840</td>
</tr>
<tr>
<td>240</td>
<td>1.990</td>
</tr>
<tr>
<td>300</td>
<td>2.361</td>
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<tr>
<td>400</td>
<td>2.616</td>
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<tr>
<td>500</td>
<td>3.687</td>
</tr>
</tbody>
</table>
(*) FeF = Variation factor for steel

Feo = Price of steel strips/steel wire. This price is as applicable on first working day of the month, one month prior to the date of tendering.

Fe = Price of steel strips/steel wire. This price is applicable on the first working day of the month, prior to the date of delivery.

### TABLE – VI

VARIATION FACTOR FOR STEEL (FeF) PVC INSULATED 1.1 KV POWER CABLES WITH ALUMINIUM CONDUCTOR

<table>
<thead>
<tr>
<th>Nominal cross sectional Area (in Sq mm)</th>
<th>3.5 core</th>
<th>Shape of armour</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>0.382</td>
<td>F</td>
</tr>
<tr>
<td>5</td>
<td>0.411</td>
<td>F</td>
</tr>
<tr>
<td>50</td>
<td>0.469</td>
<td>F</td>
</tr>
<tr>
<td>70</td>
<td>-</td>
<td>F</td>
</tr>
<tr>
<td>95</td>
<td>0.616</td>
<td>F</td>
</tr>
<tr>
<td>120</td>
<td>0.675</td>
<td>F</td>
</tr>
<tr>
<td>150</td>
<td>0.731</td>
<td>F</td>
</tr>
<tr>
<td>185</td>
<td>0.820</td>
<td>F</td>
</tr>
<tr>
<td>240</td>
<td>0.937</td>
<td>F</td>
</tr>
<tr>
<td>300</td>
<td>1.055</td>
<td>F</td>
</tr>
<tr>
<td>400</td>
<td>1.172</td>
<td>F</td>
</tr>
<tr>
<td>500</td>
<td>1.348</td>
<td>F</td>
</tr>
</tbody>
</table>

### II PRICING VARIATION FORMULA APPLICABLE FOR ISOLATORS

a) Price variation calculation for Insulator Portion of Isolators:

\[
P = \frac{Po}{100} \left\{ 15 + 5 \times \frac{Zn}{Zno} + 53 \times \frac{IN - INSLR}{INo-INSLR} + 27 \times \frac{W}{Wo} \right\}
\]

Where in,

P - Price payable as adjusted in accordance with the above formula

Po - Price quoted/accepted

ZNo - Price of electrolytic high grade zinc.

This index number is as applicable on the first working day of the month, one month prior to the date of tendering.

INo-INSLRo = Index number for insulators based on relative prices and weights (as given in brackets) of wholesale price index number for Fuel, Power, Light and Lubricants (28), wholesale price index number for basic metals, Alloys and Metal products (15), wholesale price index number for Wood and wood products (6), and Ball clay (4) calculated considering their values as on 1st January 2003 as base equal to 100.

This index number is as applicable on the first working day of the month, one month prior to the date of tendering.
Wo = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt of India (Base 1982 = 100). This index number is as applicable on the first working day of the month, one month prior to the date of tendering.

ZN = Price of electrolytic high grade zinc. This price is applicable on the first working day of the month, two months prior to the date of delivery.

INo-INSLR = Index number for insulators based on relative prices and weightages (as given in brackets) of wholesale price index number for Fuel, Power, Light and Lubricants (28), wholesale price index number for basic metals, Alloys and Metal products (15), wholesale price index number for Wood and wood products (6), and Ball clay (4) calculated considering their values as on 1\textsuperscript{st} January 2003 as base equal to 100. This index number is as applicable on the first working day of the month, one month prior to the date of delivery.

W = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt of India (Base 1982 = 100). The above index numbers are as published by IEEMA vide circular reference number IEEMA (PVC)/INSLR. prevailing as on first working day of the month, four months prior to the date of tendering.

\begin{align*}
P &= \frac{Po}{100} \left\{ 19 + \frac{17 \times IS}{ISO} + \frac{17 \times C}{Co} + \frac{13 \times AL}{ALo} + 19 \times \frac{IN}{INO} + 15 \times \frac{W}{Wo} \right\} \\
\end{align*}

Where in,

P - Price payable as adjusted in accordance with the above formula

Po - Price quoted/accepted

ISO - Wholesale price index number for ‘Iron & Steel’ (Base: 1993-94 = 100). This index number is as applicable for the week ending 1\textsuperscript{st} Saturday of the month, three months prior to the date of tendering.

Co = Average LME settlement price of copper wire bars. This price is as applicable for the month, two months prior to the date of tendering.

ALo = Price of Busbar grade Aluminium. This price is as applicable on the 1\textsuperscript{st} working day of the month, one month prior to the date of tendering.

INO = IEEMA index for insulator (Base: January 2003 = 100). This index number is as applicable on the 1\textsuperscript{st} working day of the month, one month prior to the date of tendering.
Wo = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt of India (Base 2001 = 100).

This index number is as applicable on the first working day of the month, four months prior to the date of tendering.

IS = Wholesale price index number for “Iron & steel (Base: 1993-94=100)”

This index number is as applicable for the week ending 1st Saturday of the month, four months prior to the date of delivery.

C = Average LME settlement price of copper wire bars.
This price is applicable for the month, three months prior to the date of delivery.

AL = Price of Bus bar grade Aluminum.
This price is as applicable on the 1st working day of the month, two months prior to the date of delivery.

IN = IEEMA index for insulator (Base: January 2003=100).
This price is as applicable on the 1st working day of the month, two months prior to the date of delivery.

W = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt of India (Base 2001 = 100).
This index is as applicable on the first working day of the month, five months prior to the date of delivery.

8. TAXES AND DUTIES:

The prices indicated in Schedule-A are firm except for the materials mentioned under clause (7) above and are inclusive of all taxes and duties, freight & insurance and all other incidents (i.e GST @ 18% on total value of material/equipment)

Contractor shall be entirely responsible for payment of all taxes, levies, duties, license fees, etc., incurred until delivery of the contracted goods to the Purchaser. In respect of Supply portion, the Contractor shall pay all types of fees, levies, taxes, duties etc. required to be paid by any National or State statute, ordinance or other law or any regulation or bye-law of any local or other duly constituted authority in relation to the execution of works and by the rules and regulations of all public bodies and companies whose property or rights are affected or may be affected in any way of the works. The Contractor shall in compliance with the above keep the purchaser indemnified against all such penalties and liability of every kind for breach of any statute, ordinance or law, regulation or bye-law. Nothing in the contract shall relieve the Contractor from his responsibility to pay any tax that may be levied by the Government on the turnover / profits etc., made by him in respect of the Contract.

8.1 INCOME TAX:

Income tax at applicable rates as on the date of release of payment will be deducted from the gross bills as per the Income Tax Act. The present rate of income tax deduction is 2.00%
8.2 **INSURANCE:**

The Goods supplied under this Contract shall be fully insured against loss or damage incidental to manufacture or acquisition, transportation, storage, delivery and erection. In case of domestic goods the insurance shall be at least for an **amount equal to 110% of the cost of the goods** from "warehouse to warehouse (final destination)" and **storage up to commissioning** thereafter on "All Risks" basis including War Risks and Strike Clauses.

You shall have the insurance coverage as specified in Clause (2.4) Section II financial Volume-I of Specification No. T.S.No. TST-Const-e-18/2018-19. All insurance premiums shall be borne by you. **You shall have to produce the insurance cover note before entering the agreement with Superintending Engineer/ OMC/ Khammam** as applicable. Insurance will be paid as per actual on submission of original insurance documents limited to 0.5% of Project cost (Schedule-A + Schedule-B (including GST @ 18% )).

8.3 **STATUTORY VARIATION**

Any variation up or down in statutory levy or new levies introduced **after tender calling date** under this specification will be to the account of TSTRANSCO.

In cases where delivery schedule is not adhered to by the Contractor and there are upward variation/ revision after the agreed delivered date the Contractor will bear the impact of such levies and if there is downward variation / revision the TSTRANSCO will be given credit to that effect. For the variations beyond the scheduled Completion Period the payment of taxes shall be limited to the tax rates applicable within the scheduled Completion Period.

9. **VARIATION IN QUANTITIES & SUPPLEMENTAL ITEMS:**

The quantities indicated in the Schedule-A (Materials / Equipment) are only provisional and are likely to change during actual execution. When quantities of any item are likely to exceed beyond 25% over and above the scheduled quantity or any new items / supplemental items arises, the Contractor shall bring the fact to the notice of the competent Authority of TSTRANSCO well in advance and take prior orders for going ahead with the work. Without approval of the competent Authority of TSTRANSCO, the Contractor shall not go ahead with the work wherever the increase in quantities exceeds beyond 25% over and above the scheduled quantities or any new items / supplemental items arise.

The Contractor is bound to execute all Increased / supplemental / new items that are found essential, incidental and inevitable during execution of the contract at the rates to be worked out as below:

9.1 **Increased Quantities:**

For **Material / Equipment covered in Schedule-A:** The rates accepted for individual items of material / equipment covered in Schedule - A shall hold good even for the increased quantities up to and beyond 25% over and above the agreement quantities.

9.2.1 **For Supplemental / New Items:**

For the items relating to the Schedule-A where the rates of new items cannot be deduced from the estimate / SSR, the rate payable will be arrived upon based on the prevailing market rates duly enquiring / collecting quotations and observing the reasonableness of the rates by the purchaser.
9.3. The Contractor shall plan and procure the materials indicated in the schedule ‘A’ duly verifying with the approved layout and profile, so that the procured quantities match with actual requirement to avoid excess supply of materials.

9.4. The Schedule time required to supply/complete the new / supplemental items will be indicated in the approval letter issued for new / supplemental items.

10. **TERMS OF PAYMENT:**

All payments will be made to you in the following proportion:

a) **For supply of Materials / Equipment:**

i) 80% payment will be made within 30 days for the material / equipment supplied in complete shape subject to their delivery as per the schedule of work and on its receipt at destination stores/site in good condition (i.e from check measurement date in Form-13). The concerned AEE/CONSTRUCTION will receive the equipment /material in full shape at site and the concerned EE/CONSTRUCTION will do the check measurement and issue the Form-13. The check measurement shall be done within five days from the date of receipt of materials.

ii) 10% payment will be made after erection of equipment / material.

iii) Balance 10% payment will be made after commissioning of equipment /material.

The Contractor shall furnish the following documents in quadruplicate for arranging initial payment for the equipment / material supplied.

i) Copies of the invoices showing Contract No., Goods description, quantity, unit price and total amount.

ii) Acknowledgement of receipt of material from consignee i.e. Form-13

iii) Acknowledgment of Consignee on Delivery Challan in original.

iv) Detailed packing list

vi) Copy of the Lorry receipt.

vii) Copies of Insurance Certificate / policies

viii) Test certificates approval and Dispatch clearance. (Not applicable for furniture and general items)

ix) Certificate certifying that the defects, if any, pointed out during inspection have been rectified.

x) The payments are subject to Performance Security BG with a validity of 12 months from the date of check measurement for proper fulfillment of performance obligations.

xi) No payments will be made for the Supplies made prior to Scheduled delivery date or for materials which are not in full shape.

10.1 Payments will be made by cheque / by way of Electronic Fund Transfer / RTGS from PFC ,New Delhi /TSTRANSCO funds . The Contractor has to furnish requisite details for establishing RTGS in proforma as per Schedule -X. Once RTGS system is established, the bank account details submitted are final and cannot be changed till completion of the contract. An amount of Rs. 50/- will be recovered from the bill amount for each disbursement on LOA raised by unit officers towards RTGS. For payments through Bank, connected Bank charges are to be borne by the Contractor.
Bank account details for payment through RTGS system:

Name of the Bank : Syndicate Bank  
Name of the Branch : Nizamshahi Road  
Branch Code : 3000  
City : Hyderabad  
Account No. : 30001250001770  
MICR No. :  
IFSC No. : SYNB0003000  
Income Tax PAN No. : ACUPP6469Q  
GST Registration No. : 36ACUPP6469Q2Z6  
Date of GST Registration : 28.06.2017  
Place of GST Registration : Hyderabad.

11. DELIVERY/COMPLETION PERIOD:

The delivery period for Supply of materials / equipments for the subject works is indicated in the table below. The commencement date for the supplies will be reckoned as follows:

(a) In respect of line, the commencement date will be reckoned from the date of issue of the Purchase Order or from the date of issue of 10% profiles, whichever is later.

(b) The Completion Period of SS & Bays will be reckoned from the date of issue of the Purchase Order or from the date of handing over of the approved layout whichever is later.

All activities including submission of drawings for approval, arranging inspection of materials shall be completed in this period.

<table>
<thead>
<tr>
<th>Supply, erection, testing and commissioning of the following works on Turnkey basis</th>
<th>Completion period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shifting of existing 132 KV Manuguru – Kamalapur DC line from Loc No. 147 to 153 (4KM) to outside of the Block-II in Ash Dyke area at BTPS (Bhadradri Thermal Power station 4x270 MW) in Khammam District on turnkey basis</td>
<td>03 (Three) Months</td>
</tr>
</tbody>
</table>

Within one week of receipt of intimation from Superintending Engineer/Executive Engineer concerned, the Contractor shall take over the approved profiles and layout, otherwise the date after one week of intimation to the Contractor for taking over of approved profiles and layout shall be deemed as the date of handing over of approved profiles and layout and will be taken as date of commencement of work.

a) The detailed program for supplies i.e., PERT/BAR chart shall be given by the Contractor in the kickoff meeting, which shall match PERT/BAR chart of works schedule (schedule B) as the same material are to be utilised for carrying out the works. The kick off meeting shall be held by Zonal Chief Engineers within 15 days from the issue of the Letter of Intent for all works. The targets are to be fixed in the Kick-off meeting which shall be signed by the Superintending Engineer /OMC and the Contractor which shall become a part of the agreement. The targets fixed in the Kick-off meeting are final and shall be taken for imposing penalties. A copy of the targets fixed and minutes of the Kick-off meeting shall be sent to headquarter immediately for review in the teleconference.
b) On the date of Kick-off meeting the Executive Engineer shall finalize and confirm to the Contractor regarding specific type of Towers to be used and the drawings applicable and all the quantities of materials / equipment in writing and shall make a copy to the Headquarters.

i) The Contractor shall submit bar chart of execution of works for approval during the kick-off meeting.

ii) TSTRANSCO communicate bar-chart indicating percentage (%) of profiles to be handover to the Contractor in the kick-off meeting.

c) Any technical clarifications shall be done by the concerned Superintending Engineer / OMC. The Superintending Engineer / OMC shall arrange to hand over the approved layout, Final Ground Level for Substation and approved profile for line on the day of kickoff meeting.

d) The Contractor or his representative shall invariably attend the meetings whenever called. The representative of the Contractor who attends the kick-off meetings and review meetings shall be qualified and shall be authorized by the Contractor with the details of qualification and responsibility and designation of the authorized person.

e) The bidder shall supply the materials / equipments as per the PERT/BAR chart.

The Contractor shall obtain clarifications related to all technical matters from the concerned Superintending Engineer/ Construction.

12. PENALTY FOR LATE SUPPLIES / COMPLETION:

The Completion Period mentioned above is the essence of contract. Penalty will be levied as follows for the delay supply of material.

a) Penalties for delays in execution of the works with in Completion Period: In case of non-achievement of Targets of the scheduled works by the Contractors when compared with the PERT/BAR charts as accepted in the Kickoff meetings, whatever may be the reasons, the TSTRANSCO shall levy and collect the penalty @ 1% per month of value of non-achieved targets fixed in the Kickoff meeting However if the work is completed within the total scheduled Completion Period the penalty recovered shall be released”.

b) Penalties after overall Completion Period: “In case of delay supply of material / equipment beyond overall Completion Period, whatever may be the reasons; the TSTRANSCO shall levy and collect the penalty @ 0.5% per week of the delay on the delayed value of the Materials / Equipment”

However the sum of the penalties stated above are subject to a maximum of 10% of the total value of the contract. Once the maximum is reached, TSTRANSCO may consider termination of the contract. The right of the TSTRANSCO to levy penalty shall be without prejudice to its rights under the law including the right to get the balance works executed by other agencies at the risk and cost of the successful bidder. This is in addition to the right of the TSTRANSCO to recover any damages from the Contractor and also blacklisting. In case the successful bidder fails to execute the supplies as per the program or in the opinion of purchaser, the supplies are progressing at a slow pace, TSTRANSCO reserves its right to get the balance or part of supplies executed through other agencies at the risk and cost of the successful bidder, this is in addition to the right of the TSTRANSCO to recover any damage from the Contractor and also blacklisting.
13. PERFORMANCE SECURITY:

As per Clause (4.1), Section-II ‘Financial’ of Volume-I of the Specification, you shall furnish performance security equal to Ten percent (10%) of the value of the Schedule –A i.e, Rs. 17,07,960.00 (Rupees Seventeen Lakhs Seven Thousand Nine Hundred and Sixty Only) for the proper fulfillment of contract with a validity of 17 months (i.e Completion Period 3 months plus 12 months guarantee period plus 2 months claim period). The Performance security may be made by way of Demand Draft drawn on any Nationalized Bank payable at Hyderabad in favour of Pay officer, TSTRANSCO, Hyderabad or by way of Bank Guarantee from a Nationalized/ Scheduled Bank in favour of Chief Engineer/ Construction in the prescribed proforma.

The performance security shall be forfeited if you fail to fulfill the terms of the contract. You are requested to extend the validity of the Bank Guarantee furnished towards performance security as and when requested by TSTRANSCO.

The Contractor shall furnish the performance security Bank Guarantee within 15 days from the date of issue of Letter of intent OR the Contractor may request for adjustment of his Bid security as part of performance security duly extending the validity of Bid security BG suitably and balance performance security Bank Guarantee may be submitted.

14. PERFORMANCE GUARANTEE:

i) The Contractor shall warrant for the Satisfactory Performance of the materials/ equipment supplied, for a minimum period of 12 months from the date of commissioning of the project (Sub Station, Line / Bay Works etc..). Where the suppliers/ Manufacturers provide longer period of warranty than mentioned above, TSTRANSCO shall be entitled for such longer warranty.

ii) Equipment, sub-assemblies or spares, or parts replaced / repaired under warranty shall have a further warrantee of 12 months from the date of replacement / repair.

iii) If during the period of guarantee, the Engineer decide and inform in writing to the Contractor that any equipment, part of equipment or material is defective, the Contractor on receiving details of such defects or deficiencies shall at his own expense, irrespective of reimbursement of insurance company, rectify/replace the defective material within seven (7) days of his receiving the notice or within such reasonable time as TSTRANSCO may deem proper for making it good. The decision whether correction of the defects should be through repair or by replacement shall be the sole discretion of the TSTRANSCO.

iv) In the event of Contractor not responding to the intimation of the Engineer as mentioned above, the Engineer may arrange for a third party to correct the defects after duly giving the Contractor at least seven (7) days’ notice of its intention to use a third party to correct a defect. If the Contractor does not correct the defect himself within this notice period, the Engineer may have the defect corrected by the third party. The cost of such rectification will be deducted / collected from the balance pending bills or retention amounts or performance / additional / retention securities or amounts of the Contractor either in this contract or other contracts or any other securities.

15. PAYING OFFICER& CONSIGNEE:

The Paying Officer is the Superintending Engineer/OMC/Khammam. The consignee will be concerned Assistant Executive Engineer/Construction. The Agreement authority is the Superintending Engineer/OMC / Khammam.
16. APPROVAL OF SUB-VENDORS FOR EQUIPMENT / MATERIALS AND APPROVAL OF GENERAL TECHNICAL PARTICULARS, DRAWINGS, BOMS ETC.

The materials / equipment required for this project shall be invariably purchased from the manufacturers listed in the specification who have already been supplied similar materials to TSTRANSCO and have proven performance.

17. QUALITY OF EQUIPMENT/MATERIALS:
Equipment/materials supplied by you shall be of good quality. You shall furnish samples and get them tested in the presence of the TSTRANSCO’s Engineer/ representative. The materials shall be dispatched only after inspection, testing and approval by the TSTRANSCO. The Tests to be carried out to the equipment/ material shall be in accordance with Volume-2 of the Specification.

18. Quality Assurance Plan:

The Quality Assurance Plan of TSTRANSCO is appended to the Specification. You shall adhere to the Quality Assurance Plan. You shall maintain the quality standards as per specification and shall attend the remarks of TSTRANSCO Quality Control wing on top most priority without any reminders from TSTRANSCO.

18.1 Quality Control & Inspections:

Standard: The goods supplied under this contract shall conform to the standards mentioned in the Technical Specifications and when no applicable standard is mentioned, the standard specified by the Institution of Central/State Government or internationally recognized Institutions shall be applicable and such standards shall be of latest version issued by the concerned institution

Inspections and Tests:

i) The purchaser or his representative shall have access to the Contractor’s or Manufacturer’s work at any time during working hours for the purpose of inspecting and testing the materials during manufacturing of the materials / equipment and may select test samples from the materials going into plant and equipment.

ii) The inspections and Tests may be conducted in the premises of the manufacturer/ supplier, at the point of delivery and/or at the final destination stores i.e. at the site. Where Tests are conducted in the premises of manufacturer / supplier, all reasonable facilities and assistance including access to drawings and production data shall be furnished at no extra charge to the Purchaser.

iii) Should any inspected or tested materials fail to conform to specifications, the inspection officer may reject them and the Manufacturer / supplier shall either replace the rejected materials or make all alterations necessary to meet specification requirements free of cost to the Purchaser.

iv) The purchaser’s right to inspect, test and where necessary, reject the materials/ equipment after their arrival at the site, shall in no way be limited or waived by reason of the materials/equipment having been previously inspected, tested and passed by the purchaser or his representative prior to the dispatch.

v) The cost of making any test shall be borne by the Contractor, if such test is clearly intended by or provided for in the contract.

Cost of Tests not provided for: TSTRANSCO may decide to conduct certain other Tests not covered in this specification on the materials supplied by the bidder by an independent person or agency at any place other than the site of the place of manufacture of the materials. The cost of such Tests shall still to be borne by the Contractor. If the Tests show that the workmanship or quality of materials are not in accordance with the provisions of the contract the same may be replaced with new one conforming to specification at Contractor’s cost.
Quality of Materials and Workmanship: All materials and workmanship shall be of the respective kinds described in the contract and in accordance with the Engineer’s instructions and shall be subjected to change from time to time to such Tests as the Engineer may direct at the place of manufacture or fabrication or on the site or at all or any such places. The Contractor shall provide such assistance, instruments, machines, labour and materials that are normally required for examining, measuring and testing any work and the quality, weight or quantity of any materials used and shall supply samples of materials before incorporation in the works, for testing as may be selected and required by Engineer.

Cost of Samples: The Contractor at his own cost shall supply all samples, if the supply thereof is clearly intended by or provided for in the contract.

Inspection of operation: The Engineer and any person authorized by him shall at all times have access to all workshops and places from where materials are being obtained and the Contractor shall afford every facility and every assistance in or in obtaining the right to such access.

18.2 Single Stage Inspection: The Contractor / fabricator shall invariably use the steel angles manufactured by SAIL, VSP, TISCO and ISCO only for the fabrication of Line and Substation structures. The angles which are not manufactured by the above primary producers can be procured from any other TSTRANSCO approved re-roller. However the fabricator / re-roller should offer for single stage inspection i.e finished material after fabrication. The cost of 3rd party laboratory charges and any other testing charges and samples collection expenses are to the account of Contractor and shall include in the cost of materials while quoting. The fabricator / re-roller shall furnish copies of evidence of procurement of raw materials from above steel angle manufactures (Copies of invoice, test reports shall handover to the inspecting officer for issue of dispatch clearance on the spot.)

19. EQUIPMENT/MATERIAL REQUIRED FOR THE WORK:

All the equipment/material required under the scope of this contract shall be supplied by you. The standards, workmanship and technical requirements of these equipment / materials shall conform to the relevant standards and Volume-II ‘Technical Specification’, of the specification No. T.S.No. TST-Const-e-18/2018-19.

20. REPLACEMENT:

The Contractor is responsible for the safe delivery of material in good condition and in full shape without any shortages at the destination. In the event of the materials handed over to you for the execution of this contract being lost, damaged or destroyed while being in your custody before being handed over to the TSTRANSCO, you shall be liable to make good the loss without any extra cost to the TSTRANSCO.

21. GUARANTEED TECHNICAL PARTICULARS AND TYPE TESTS, MANUFACTURING CLEARANCE:

Within fifteen days of receipt of this order you are requested to submit the following.
(a) Full particulars of materials to be supplied by you along with Guaranteed Technical Particulars, drawings, type test reports, Quality Assurance Plan for approval.

(b) The detailed program of material manufacturing/offfer/supply/erection with probable dates.

(c) The detailed program of survey, foundation, erection of towers, stringing and commissioning of line.
Further you are requested to obtain proper approvals for the above before commencing manufacturing of the material. It is mandatory to obtain manufacturing clearance for the quantities of all the material from the concerned Executive Engineer/CONSTRUCTION in writing so as to ensure the correctness of the quantities required for the work.

The Contractor shall adhere to the Principal parameters/Guaranteed Technical Particulars specified in the specification and also the approved list of manufacturers as specified in the specification.

All the equipment/material covered under Schedule-A of this contract shall be fully type tested by the Contractor or his vendor as per relevant standards. The type Tests should have been conducted on similar or higher capacity equipment not earlier than five years from the date of issue of Letter of Intent.

22. **DESIGNS AND DRAWINGS:**

Foundation drawings will be furnished by the department.

TSTRANSCO has provided scanned copies of approved drawings in TSTRANSCO website. The Contractor may download the approved drawings from the TSTRANSCO website and utilize for execution of subject work. Approval of drawings by TSTRANSCO shall not absolve you from your responsibility of correctness thereof or from the results arising out of error or omission therein or from any obligation or liability under the contract. Any supplementary drawings necessary to permit the complete design of the installation prior to receiving the equipment shall also be supplied. Six sets of all approved drawings and one set of reproducible drawings shall be furnished by you. One set of drawings and instruction manuals shall be sent along with the equipment at the time of dispatch. Copies of the drawings and manuals shall also be sent to other offices as indicated below.

<table>
<thead>
<tr>
<th>Section</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consignee</td>
<td>One set of approved drawings for each consignment.</td>
</tr>
<tr>
<td>Paying officer</td>
<td>Two sets of drawings and instruction manuals.</td>
</tr>
<tr>
<td>Concerned Executive Engineer/Construction</td>
<td>Two sets of drawings and instruction manuals</td>
</tr>
<tr>
<td>To this office</td>
<td>Four sets</td>
</tr>
</tbody>
</table>

Erection, operation and maintenance manuals shall be supplied as follows with the equipment:

<table>
<thead>
<tr>
<th>Section</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consignee</td>
<td>One set for each consignment.</td>
</tr>
<tr>
<td>Paying officer</td>
<td>Two sets</td>
</tr>
<tr>
<td>Concerned Executive Engineer/Construction</td>
<td>Two sets</td>
</tr>
<tr>
<td>To this office</td>
<td>Six sets</td>
</tr>
</tbody>
</table>

23. **INSPECTION OF EQUIPMENT/MATERIALS:**

i) Inspection shall be made in accordance with the clause (24) of Section-I, Volume-I of the Specification.

ii) The TSTRANSCO at its discretion may get the materials/equipment inspected by a Third Party if it feels necessary in accordance with the clause (24) of Section-I, Volume-I of the Specification.

iii) The TSTRANSCO representative shall at all times be entitled to have access to the works and all other places of manufacture. The supplier shall provide all facilities for unrestricted inspection of the works, raw materials, and process of manufacture and for conducting necessary Tests. The Contractor shall inform well in advance of the commencement of manufacture, progress of manufacture thereof so that arrangements could be made for inspection.
iv) The Contractor shall give at least 15 days advance intimation to enable the purchaser to
depute his representative for witnessing acceptance and routine Tests. Inspection of tower
parts shall be arranged only if they are offered for full shape towers. No material shall be
dispatched from its point of manufacture before it has been satisfactorily inspected and
tested, unless the purchaser in writing waves off the inspection. In the later case also,
material shall be dispatched only after satisfactorily conducting all the Tests specified as
per IS and after test certificates are approved by the purchaser. The acceptance of any
material shall in no way relieve the Contractor of his responsibility for meeting all the
requirements of this specification and shall not prevent subsequent rejection if the
material is later found to be defective.

24. DESPATCH INSTRUCTIONS:
The dispatch instructions will be communicated to you while approving the test certificates
furnished as and when the materials/equipment is inspected. The material/equipment shall be
dispatched by Road Transport through reliable transport agency with freight prepaid and duly
insured. Materials/equipment, which are not conforming to IS standards specified in Bid
documents, or are not of acceptable quantity, or are not as per approved drawings, would be
deemed to be not delivered.

Three copies of test certificates containing the results of all Tests carried out shall be
submitted to the Chief Engineer / Construction and got approved before dispatched. The supplier
shall maintain all test reports of routine and stage Tests conducted during manufacture. These
shall be produced for verification as and when requested by the purchaser.

25. COMPLETENESS OF MATERIAL:
All fittings, accessories and apparatus which may not have been specifically mentioned in the
specification, tender or this contract order but which are useful or necessary for the efficient,
economic and safe operation of the equipment/ material supplied and for completion of the work,
shall be deemed to be included under the scope of the contract and shall be provided by the
Contractor without extra charges. All the equipment/ material/ works shall be complete in all
respects whether such details are mentioned in this Purchase Order or not.

26. PACKING:
The supplier/manufacturer shall provide such packing for the material/ equipment as is
required to prevent their damage or deterioration during transit to their final destination, as
indicated in the technical specification for material/equipment. The packing shall be sufficient
to withstand, without limitation, rough handling during transit and exposure to extreme
temperatures, humidity etc. during transit and open storage.

27. ACCEPTANCE CERTIFICATE:
Upon receipt of material/equipment at the designated destination and after inspection, acceptance
certificate (Form-13) will be issued by the concerned Executive Engineer/ Construction in which
he will certify the date on which the material/equipment has been so accepted. Material /
equipment received shall be verified by concerned Asst. Executive Engineer/ Construction and
check measured by the concerned Executive Engineer/ Construction at the site stores. If
material/ equipment is found defective due to bad workmanship or damaged due to defective
packing or otherwise not in conformity with requirements of the contract, taking over of
material and issue of acceptance certificate shall be withheld until such time the defects have
been corrected. The consignee will notify the defects found in the material after receipt of
material at destination.
The issue of acceptance certificate will no way relieve the Contractor of his responsibility for supply and Satisfactory Performance of material/equipment as per technical requirements given in the specification.

28. OPERATION AND MAINTENANCE MANUALS:

Contractor shall supply 10 copies of operation and Maintenance manuals and approved drawings along with the equipment. If the Contractor does not supply the operation and maintenance manuals and approved drawings as stated above the equipment bills will be kept on hold. 10 copies of Contract Agreements with specification, QAP, all the approved drawings of Materials, GTPs, BOMs, Layout plans etc., shall be supplied by the Contractor to distribute to field CONSTRUCTION and TL & SS wings and to keep the spare records at Head Quarters. The Contractor shall prepare the final tower schedule and shall supply in 10 copies. The cost of the above shall be borne by the Contractor and shall provide as instructed by the Executive Engineer / Construction.

29. AGREEMENT:

29.1 The Superintending Engineer / OMC/ Khammam shall be the agreement authority and the Contractor shall attend the office of the SE/OMC within 15 days of the detailed order to enter in to an agreement. The Superintending Engineer / OMC/ Khammam shall enter an agreement with the Contractor duly verifying the following.

i. The PAN card, GST registration, Labor license, valid A-grade electrical license to execute EHT works in A.P/TS.
ii. Valid Performance Bank Guarantee.
iii. Authorization/power of attorney of the Contractor representative to sign the agreement.

29.2 The following documents shall also be made part of the agreement.

i. The copy of the letter of intent.
ii. The copy of the Purchase order.
iii. The copy of the volume-1 of the specification.
iv. Copy of the Performance Bank Guarantee and its approval.
v. Authorization / power of attorney of the Contractor representative to sign the agreement.
vi. Copies of the statutory registrations of the Contractor etc.,

30. MANAGEMENT /CO-ORDINATION MEETINGS:

Monthly / Fortnight review of works shall be conducted by the Superintending Engineer/ OMC or Chief Engineer / Zone or. The Contractor or his representative shall invariably attend the meetings whenever called. The representative of the Contractor who attends the kick-off meetings and review meetings shall be qualified and shall be authorized by the Contractor with the details of qualification and responsibility and designation of the authorized person. Superintending Engineer/ OMC shall conduct Monthly review meeting with Contractor and record the reasons for delay and any other bottlenecks based on the weekly dairy of the work done jointly recorded by Assistant Engineer/ Construction or Assistant Executive Engineer/ Construction, and the Contractor.

Superintending Engineer/ OMC to submit copies of minutes of monthly review meeting with the Contractors to headquarters

A weekly dairy of work done during the week on day to day basis should be prepared on the last working day of the week and should be submitted to the Executive Engineer/ Construction jointly signed by concerned Assistant Engineer/Assistant Executive Engineer (Construction) and Contractor’s authorized representative.
31. **EARLY WARNING:**
The Contractor has to intimate the TSTRANSCO at the earliest opportunity of specific likely future events or circumstances, which may adversely affect the Project Implementation Schedule. The Contractor shall cooperate with the officers of TSTRANSCO in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced.

32. **RESPONSIBILITY OF THE CONTRACTOR:**
The Contractor is responsible for the safe delivery of the goods in good condition at destination. He should acquaint himself of the conditions obtaining in regard to supply of the materials. TSTRANSCO shall not be responsible for any mismatch of material supply and works on account of whatever so the reasons. The Contractor is responsible to submit the material bills (immediately after receipt of materials at site) promptly and submit all the required enclosures without fail. TSTRANSCO shall not be responsible for any delayed payments whatever so the reasons

33. **EXTENSION OF THE DELIVERY/COMPLETION DATE:**
When a work cannot be completed within the Completion Period indicated for reasons beyond the control of the Contractor i.e. due to Force Majeure conditions mentioned below or due to the reasons attributable to TSTRANSCO, the Contractor shall represent for the same and extension of time without levying penalty shall be granted only on the issue of an undertaking by the Contractor that they will not put forth at a later date, any claims for extra payments towards increased overheads, material/equipment/works costs etc. during the extended period. It is the sole discretion of the TSTRANSCO to grant extension of Completion Period.

34. **FORCE MAJEURE:**

34.1 The Contractor will not be liable for forfeiture of its performance security, penalty for late delivery, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Majeure.

34.2 For purposes of this clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not restricted to, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

34.3 If a Force Majeure situation arises, within 15 days from the date of eventuality the Contractor shall notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Contractor shall continue to perform their obligations under the Contract as far as it is reasonably practice, and will seek all reasonable alternative means for performance not prevented by the Force Majeure event.

35. **DELAYS ORDERED BY THE PURCHASER**

TSTRANSCO reserves the right to suspend and reinstate execution of whole or any part of the supplies without invalidating the provisions of the order. Orders for suspension or reinstatement of the supplies will be issued by the Engineer to the Contractor in writing. The time for completion of the supplies will be extended suitably to account for duration of the suspension. Any costs incurred by the Contractor due to increased overheads, idling of labour etc., as a result of such suspension will not be reimbursed to the Contractor.
36. ACCOUNTING OF SURPLUS MATERIALS/ SETTLEMENT OF MATERIAL ACCOUNT:

36.1(a) On completion of works, all the surplus material which has been already billed by Contractor to Transco but not used by Contractor in the project, shall be handed over designated TS Transco stores at the cost of the Contractor within the time limit of 2 months of commissioning of the project. However if the material is not handed over within such time limit or in the opinion of designate officer of TS Transco who is in-charge of the works, such material is not in fit condition for use, such material shall be retained by the Contractor and recovery shall be made from Contractor at the rate as per the contract rate.

(b) In exceptional cases, in order to expedite work progress, whenever TS Transco issues the material from its stores on returnable basis to the Contractor, the Contractor shall return such material within 30 days from the date of issue of such material along with the interest on the value of such material at the rate of 2% per month or part thereof. However if Contractor fails to return material within 30 days of issue of such material, the material shall be deemed to have been sold to Contractor on the date of its issue to Contractor at a price which shall be 150% of the procurement cost and such cost shall be recovered from Contractor along with the interest at 2% per month or part thereof from the date of issue of material till amount is recovered.

36.2 All the balance works if any shall have to be executed by the Contractor within two months of charging of Bays / line. If the Contractor fails to complete the balance works within the above time schedule the works will be executed by the other agencies and will back charge to the Contractor. However the completed works shall be handed over to O & M wing by construction wing within 3 months after commissioning.

37. FINAL ACCOUNT:

a) Not later than one (1) month after handing over of the works complete in all respects i.e., after successful testing and commissioning, the Contractor shall submit a draft statement of ‘final account’ and supporting document to the Engineer/Engineer’s Representative showing in detail the value of the work done in accordance with the contract.

b) Within one (1) month after receipt of the Draft Final Account and all information reasonably required for its verification, the Engineer/Engineer’s representative shall determine the value of all matters to which the Contractor is entitled to under the contract. The Engineer/Engineer’s representative shall then issue to the Contractor a statement showing the final amount to which the Contractor is entitled to under the contract.

c) The Contractor shall sign the Final Account as an acknowledgement of the full and final value of the work performed under the contract and shall promptly submit a signed copy to the Engineer/Engineer’s representative.

d) On receipt of Final Account, the Engineer/Engineer’s representative shall promptly prepare and issue to the Contractor a “Final Payment Certificate” certifying any further amounts due to the Contractor in respect of the contract.

e) If the Contractor does not finalize the material account within 2 months from the date of completion of works/ handing over of works, the field Executive Engineer will prepare the final bill duly deducting the cost of all the unaccounted / unhanded over material and will issue a notice to the Contractor for signing on the bill. If the Contractor do not turn-up within 15 days of that notice, the bill will be processed without signatures of the Contractor. The cost of the unaccounted material will be taken as per Clause 36 above.
38. TECHNICAL AUDIT:

i) All the completed works shall be technically audited by Quality Assurance wing within two months of the completion/commissioning of the project for the correctness of project in terms of agreements, specifications, detailed project report/ technical sanction, deviation in quantities & rates.

ii) All the remarks which are pointed out by Quality wing in the above technical audit shall invariably attend by CONSTRUCTION wing within one month and in case the remarks are pertaining to the execution of work which is in the scope of the agreement, the Contractor has to attend the remarks without insisting of any additional payment.

iii) Contractor must be held responsible for rectification/completion of works as on date of commissioning and for defects within the warranty period.

iv) However all the liabilities of the Contractor covered under performance guarantee period shall hold good.

39. TAKING OVER:

Upon successful completion of all the commissioning Tests to be performed at site on equipment furnished and erected by the Bidder, and on successful commissioning of the project, the purchaser shall issue to the Contractor ‘a taking over Certificate’ as a proof of the final acceptance of the project. However such taking over certificate will be issued only after handing over of all the manuals, drawings, tower schedules as per Clause 22 above and after settlement of materials account and final bill.

40. CORRESPONDENCE:

The officers mentioned under Paragraphs (15) & (29) of this contract award letter will be in charge of the works covered by this contract. All matters relating to field work, completion, handing over and payments shall be referred to them with copies marked to this office and Chief Engineer/Zone/Warangal.

41. TERMINATION OF CONTRACT:

If the Contractor does not fulfill his obligations as per the terms of the specification TSTRANSCO will be entitled to terminate the contract in part or full by giving 15 days notice and get the balance works completed through other agencies at the Contractor’s cost and risk.

The Contractor so penalized shall be blacklisted for 3 years from the date of termination of contract.

In the event of termination of contract due to delay attributable to the Contractor, TSTRANSCO is entitled to get back equipment/ material from the Contractor for the payment already made but the material is not put to use, and then get the works done by other agency/ agencies for completion of contract by using the said recovered material. The Contractor shall have no objection in this regard.
42. **ACKNOWLEDGEMENT:**

Please acknowledge the receipt of this Order with a confirmation of the acceptance of its contents by you and the extra copy of the order enclosed may please be returned with your signature with date in token of your acceptance, within 15 days from the date of issue of this letter.

Yours faithfully,

**CHIEF ENGINEER**

**CONSTRUCTION**

**(ACTING FOR AND ON BEHALF OF THE TRANSMISSION CORPORATION OF TS LTD.)**

**WE ACCEPT THE TERMS AND CONDITIONS OF THIS ORDER.**

**SIGNATURE OF THE CONTRACTOR WITH SEAL AND DATE**

**Copies to:**

The Executive Director/Finance/TSTRANSCO/VS/Hyderabad.
The Chief Engineer/Zone /TSTRANSCO/ Warangal.
The Chief Engineer/Civil /TSTRANSCO/VS/Hyderabad.
The Chief Engineer /Telecom/TSTRANSCO/VS/Hyderabad.
The Superintending Engineer/OMC/ Khammam.  (*)  – 2 copies
The Superintending Engineer/Civil/TSTRANSCO/Warangal.
The Executive Engineer/ Construction /TSTRANSCO/ Khammam
The Executive Engineer/TLC/Civil/ Khammam
The SAO/Pay & Accounts/TSTRANSCO/Vidyut Soudha /Hyderabad.

(*) He is requested to hand over the approved profiles/layout immediately to the Contractor and arrange to enter into an agreement immediately, to enable speedy execution of works.