

# **TENDER SPECIFICATION**

**NO: BHE/PW/PUR/HZGG-CBL/747**

**FOR**

**HANDLING AT SITE STORES/STORAGE YARD, TRANSPORTATION TO SITE OF  
WORK, COMPLETE ERECTION, CHECKING OF CALIBRATION, TESTING,  
COMMISSIONING AND HANDING OVER OF CABLING WORKS FOR 1x 350 MW,  
GSEG, HAZIRA,**

**AT**

**GUJARAT STATE ENERGY GENERATION LIMITED**

**NEAR HAZIRA, VILLAGE MORA**

**POST BHATHA, SURAT HAZIRA ROAD,  
DISTT.-SURAT, PIN : 394510  
GUJARAT**

**VOLUME- II - PRICE BID**



**BHARAT HEAVY ELECTRICALS LIMITED**

**(A Govt. of India Undertaking)**

**POWER SECTOR - WESTERN REGION**

**345, KINGS WAY - NAGPUR 440 001**

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THESE TENDER DOCUMENTS CONTAINING VOLUME-II PRICE BID IS ISSUED TO:

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(THESE TENDER DOCUMENTS ARE NOT TRANSFERABLE)

FOR BHARAT HEAVY ELECTRICALS LIMITED

AGM (PURCHASE)

PLACE: NAGPUR

DATE :

**BHARAT HEAVY ELECTRICALS LIMITED : PSWR : NAGPUR**  
**TENDER SPECIFICATION No. BHE/PW/PUR/ HZGG-CBL/747**  
**VOLUME-II-PRICE BID-747**

**BHARAT HEAVY ELECTRICALS LIMITED : PSWR : Nagpur**  
**T.S. No. BHE/PW/PUR/HZGG-CBL/747**  
**VOLUME-II-PRICE BID (Page 1 of 7)**

| SN    | DESCRIPTION   | TOTAL QTY. | UOM  | UNIT RATE (Rs.) | TOTAL AMOUNT (Rs.) | Applicable terms of payment |
|-------|---|------------|------|-----------------|--------------------|-----------------------------|
| AA    | Power & Control Cables (Laying, glanding, dressing, clamping, termination & testing etc.) |            |      |                 |                    | I.2.0                       |
| A1    | HT Cable  |            |      |                 |                    |                             |
| A1.1  | 1C x 630 sqmm, 11KV(UE) XLPE  | 450        | Mtrs |                 |                    |                             |
| A1.2  | 1C x 500 sqmm -Al   | 1000       | Mtrs |                 |                    |                             |
| A1.3  | 3C x185 sqmm - Al.  | 2000       | Mtrs |                 |                    |                             |
| A2    | LT POWER CABLE (Aluminium)  |            |      |                 |                    |                             |
| A2.1  | 3c x10 sqmm - Al.   | 2000       | Mtrs |                 |                    |                             |
| A2.2  | 3c x 25 sqmm -Al.   | 4000       | Mtrs |                 |                    |                             |
| A2.3  | 3c x 50 sqmm -Al.   | 3000       | Mtrs |                 |                    |                             |
| A2.4  | 3c x 95 sqmm -Al.   | 3000       | Mtrs |                 |                    |                             |
| A2.5  | 3.5C x 25 sqmm -Al.   | 13000      | Mtrs |                 |                    |                             |
| A2.6  | 3.5C x 50 sqmm -Al.   | 23000      | Mtrs |                 |                    |                             |
| A2.7  | 3.5C x 95 sqmm -Al.   | 3000       | Mtrs |                 |                    |                             |
| A2.8  | 3.5C x 185 sqmm -Al.  | 2000       | Mtrs |                 |                    |                             |
| A2.9  | 1C x 25 sqmm -Al  | 4000       | Mtrs |                 |                    |                             |
| A2.10 | 1C x 70 sqmm -Al  | 3000       | Mtrs |                 |                    |                             |
| A2.11 | 1C x 120 sqmm -Al   | 1000       | Mtrs |                 |                    |                             |
| A2.12 | 1C x 400 sqmm -Al   | 3000       | Mtrs |                 |                    |                             |
| A2.13 | 1C x 630 sqmm -Al   | 44000      | Mtrs |                 |                    |                             |

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**VOLUME-II-PRICE BID (Page 2 of 7)**

| SN           | DESCRIPTION                      | TOTAL QTY.   | UOM         | UNIT RATE (Rs.) | TOTAL AMOUNT (Rs.) | Applicable terms of payment |
|--------------|----------------------------------|--------------|-------------|-----------------|--------------------|-----------------------------|
| <b>A3</b>    | <b>LT POWER CABLES (Copper)</b>  |              |             |                 |                    |                             |
| <b>A3.1</b>  | <b>2Cx2.5sqmm</b>                | <b>14000</b> | <b>Mtrs</b> |                 |                    |                             |
| <b>A3.2</b>  | <b>3Cx2.5sqmm</b>                | <b>26000</b> | <b>Mtrs</b> |                 |                    |                             |
| <b>A3.3</b>  | <b>1Cx25sqmm</b>                 | <b>3000</b>  | <b>Mtrs</b> |                 |                    |                             |
| <b>A3.4</b>  | <b>1Cx70sqmm</b>                 | <b>3000</b>  | <b>Mtrs</b> |                 |                    |                             |
| <b>A3.5</b>  | <b>1Cx630sqmm</b>                | <b>1000</b>  | <b>Mtrs</b> |                 |                    |                             |
| <b>A3.6</b>  | <b>2C x 50 sqmm</b>              | <b>1000</b>  | <b>Mtrs</b> |                 |                    |                             |
| <b>A3.7</b>  | <b>3Cx16sqmm</b>                 | <b>3000</b>  | <b>Mtrs</b> |                 |                    |                             |
| <b>A3.8</b>  | <b>3C X 35 sq. mm</b>            | <b>4250</b>  | <b>Mtrs</b> |                 |                    |                             |
| <b>A3.9</b>  | <b>3C X 95 sq. mm</b>            | <b>600</b>   | <b>Mtrs</b> |                 |                    |                             |
| <b>A3.10</b> | <b>3C X 150 sq. mm</b>           | <b>1500</b>  | <b>Mtrs</b> |                 |                    |                             |
| <b>A3.11</b> | <b>3C X 240 sq. mm</b>           | <b>1500</b>  | <b>Mtrs</b> |                 |                    |                             |
| <b>A4</b>    | <b>CONTROL CABLES (PVC FRLS)</b> |              |             |                 |                    |                             |
| <b>A4.1</b>  | <b>24C X 2.5 SQ. MM</b>          | <b>2000</b>  | <b>Mtrs</b> |                 |                    |                             |
| <b>A4.2</b>  | <b>19C X 2.5 SQ. MM</b>          | <b>3000</b>  | <b>Mtrs</b> |                 |                    |                             |
| <b>A4.3</b>  | <b>12C X2.5 SQ. MM</b>           | <b>2500</b>  | <b>Mtrs</b> |                 |                    |                             |
| <b>A4.4</b>  | <b>7C X 2.5 SQ MM</b>            | <b>3000</b>  | <b>Mtrs</b> |                 |                    |                             |
| <b>A4.5</b>  | <b>3C X 2.5 SQ. MM</b>           | <b>4000</b>  | <b>Mtrs</b> |                 |                    |                             |
| <b>BB</b>    | <b>CABLE TERMINATION KIT</b>     |              |             |                 |                    | <b>I.10.4</b>               |

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**VOLUME-II-PRICE BID (Page 3 of 7)**

| SN    | DESCRIPTION   | TOTAL QTY. | UOM  | UNIT RATE (Rs.) | TOTAL AMOUNT (Rs.) | Applicable terms of payment |
|-------|---|------------|------|-----------------|--------------------|-----------------------------|
| B1    | 6.35/11 kV Indoor Termination Kits for 6.35/11 kV, XLPE insulated, Armoured, Aluminium cable      |            |      |                 |                    |                             |
| B1.1  | 1C x 630 sq.mm  | 10         | Nos. |                 |                    |                             |
| B1.2  | 1CX500 sq.mm  | 25         | Nos. |                 |                    |                             |
| B1.3  | 3CX185 sq.mm  | 33         | Nos. |                 |                    |                             |
| B2    | Trefoil Clamps (Complete with fixing hardware's) for 6.35/11 kV, XLPE insulated armoured AI Cable |            |      |                 |                    | I.10.1                      |
| B.2.1 | 1C X 500 sq. mm   | 140        | Nos. |                 |                    |                             |
| B3    | Trefoil Clamps (Complete with fixing hardware's) for 1.1 kV, XLPE insulated armoured AI Cable     |            |      |                 |                    | I.10.1                      |
| B.3.1 | 1C X 25 sq. mm  | 500        | Nos. |                 |                    |                             |
| B.3.2 | 1C X 70 sq. mm  | 400        | Nos. |                 |                    |                             |
| B.3.3 | 1C X 120 sq. mm   | 150        | Nos. |                 |                    |                             |
| B.3.4 | 1C X 400 sq. mm   | 400        | Nos. |                 |                    |                             |
| B.3.5 | 1C X 630 sq. mm   | 5200       | Nos. |                 |                    |                             |
| CC    | CABLE TRAYS (with coupler plates, fastners, clamps and fixing hardwares) AND ACCESSORIES          |            |      |                 |                    | I.1.0                       |
| C1    | 600mm Ladder type tray  | 10000      | Mtrs |                 |                    |                             |
| C2    | 450mm Ladder type tray  | 1000       | Mtrs |                 |                    |                             |
| C3    | 300mm Ladder type tray  | 500        | Mtrs |                 |                    |                             |
| C4    | 150mm Ladder type tray  | 1000       | Mtrs |                 |                    |                             |

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**T.S. No. BHE/PW/PUR/HZGG-CBL/747**  
**VOLUME-II-PRICE BID (Page 4 of 7)**

| SN   | DESCRIPTION  | TOTAL QTY. | UOM | UNIT RATE (Rs.) | TOTAL AMOUNT (Rs.) | Applicable terms of payment |
|------|--|------------|-----|-----------------|--------------------|-----------------------------|
| DD   | PRE FABRICATED CABLE TRAYS ACCESSORIES   |            |     |                 |                    | I.1.0                       |
| D1   | HORIZONTAL TEE/BEND WITH COUPLER PLATES <u>FOR LADDER TYPE CABLE TRAYS</u>         |            |     |                 |                    |                             |
| D1.1 | 600mm Ladder Horizontal bend   | 60         | Nos |                 |                    |                             |
| D1.2 | 450/300/150mm Ladder Horizontal bend   | 21         | Nos |                 |                    |                             |
| D1.3 | 600mm Ladder tee   | 45         | Nos |                 |                    |                             |
| D1.4 | 450/300/150mm Ladder tee   | 30         | Nos |                 |                    |                             |
| D2   | VERTICAL ELBOW -UP/DOWN WITH COUPLER PLATES <u>FOR LADDER TYPE CABLE TRAYS</u>     |            |     |                 |                    |                             |
| D2.1 | 600mm Ladder Vertical Up/Down  | 30         | Nos |                 |                    |                             |
| D2.2 | 450/300mm Ladder Vertical Up/Down  | 12         | Nos |                 |                    |                             |
| D3   | HORIZONTAL TEE/BEND WITH COUPLER PLATES <u>FOR PERFORATED TYPE CABLE TRAYS</u>     |            |     |                 |                    |                             |
| D3.1 | 600/450/300/150mm Perforated Horizontal bend                                       | 30         | Nos |                 |                    |                             |
| D3.2 | 600/450/300/150mm Perforated Horizontal tee  | 15         | Nos |                 |                    |                             |
| D4   | VERTICAL ELBOW -UP/DOWN WITH COUPLER PLATES <u>FOR PERFORATED TYPE CABLE TRAYS</u> |            |     |                 |                    |                             |
| D4.1 | 600/450/300mm Perforated Vertical Up/Down  | 15         | Nos |                 |                    |                             |
| D5   | HORIZONTAL CROSS WITH COUPLER PLATES <u>FOR LADDER TYPE CABLE TRAYS</u>            |            |     |                 |                    |                             |
| D5.1 | 600/450/300/150mm Ladder type cross  | 25         | Nos |                 |                    |                             |

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|------|--|------------|------|-----------------|--------------------|-----------------------------|
| D6   | <b>HORIZONTAL CROSS WITH COUPLER PLATES <u>FOR PERFORATED TYPE</u> CABLE TRAYS</b>   |            |      |                 |                    |                             |
| D6.1 | 600mm Perforated type cross  | 10         | Nos  |                 |                    |                             |
| D6.2 | 450/300mm Perforated type cross  | 9          | Nos  |                 |                    |                             |
| D7   | <b>REDUCER WITH COUPLER PLATE</b>  |            |      |                 |                    |                             |
| D7.1 | 600-450/300mm Ladder type reducers   | 20         | Nos  |                 |                    |                             |
| D7.2 | 450-300mm Ladder type reducers   | 10         | Nos  |                 |                    |                             |
| D7.3 | 300-150mm Ladder type reducers   | 5          | Nos  |                 |                    |                             |
| D7.4 | 600-450/300mm Perforated type reducers   | 10         | Nos  |                 |                    |                             |
| D8   | <b>CLAMPS AND FITTINGS COMPLETE WITH REQUIRED HARDWARES(Anchor bolts, Spring nuts/ washers etc. as required for complete installation)</b> |            |      |                 |                    |                             |
| D8.1 | Double support channel   | 1000       | Mtrs |                 |                    |                             |
| D8.2 | Single support channel   | 7000       | Mtrs |                 |                    |                             |
| D8.3 | Canti lever arm (C/A) – 600 mm   | 13500      | Nos  |                 |                    |                             |
| D8.4 | Canti lever arm (C/A) – 450 mm   | 1300       | Nos  |                 |                    |                             |
| D8.5 | Canti lever arm (C/A) – 300 mm   | 700        | Nos  |                 |                    |                             |
| D8.6 | Canti lever arm (C/A) – 150 mm   | 1500       | Nos  |                 |                    |                             |
| D8.7 | 90° angle fitting HL1  | 1000       | Nos  |                 |                    |                             |
| D8.8 | Clamp for single channel CC1   | 600        | Nos  |                 |                    |                             |
| D8.9 | Clamp for double channel CC2   | 2500       | Nos  |                 |                    |                             |

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**VOLUME-II-PRICE BID (Page 6 of 7)**

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|-------|--|------------|------|-----------------|--------------------|-----------------------------|
| D8.10 | Base plate for single channel BP1  | 2500       | Nos  |                 |                    |                             |
| D8.11 | Base plate for double channel BP2  | 600        | Nos  |                 |                    |                             |
| D8.12 | Beam clamp BC1   | 800        | Nos  |                 |                    |                             |
| D8.13 | Tray fixing clamp TC1  | 8000       | Nos  |                 |                    |                             |
| D8.14 | Flat plate straight fitting PF2  | 1200       | Nos  |                 |                    |                             |
| D8.15 | Flat plate tee fitting PF1   | 1000       | Nos  |                 |                    |                             |
| D8.16 | 90° angle fitting LA1  | 300        | Nos  |                 |                    |                             |
| EE    | EARTHING MATERIALS (Civil works for earth pits included)   |            |      |                 |                    | 1.6.0                       |
| E1    | 65 x 10 GS Flat  | 12000      | Mtrs |                 |                    |                             |
| E2    | 25 x 6 GS Flat   | 2500       | Mtrs |                 |                    |                             |
| E3    | 25 x 3 GS Flat   | 2000       | Mtrs |                 |                    |                             |
| E4    | 20 mm dia. 1000 mm long GS rod   | 80         | Mtrs |                 |                    |                             |
| E5    | 8 SWG Solid GI wire  | 2000       | Mtrs |                 |                    |                             |
| E6    | Flexible braided conductor with tinned copper clamp connected by u bolt for fence gate earthing. | 25         | Mtrs |                 |                    |                             |
| FF    | BELOW GROUND EARTHING ( EARTH PITS / EARTHING ELECTRODES / ELECTRONIC EARTH PITS)( Material for  |            |      |                 |                    | 1.6.0                       |
| F1    | 40mm DIA, 3 mtrs long Earth Eelectrodes  | 114        | nos  |                 |                    |                             |

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**VOLUME-II-PRICE BID (Page 7 of 7)**

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|-----------------------------|---|------------|-----|-----------------|--------------------|-----------------------------|
| F2                          | ELECT EARTH PIT ( for T/F, Generator Neutral Earthing) with 65 ID GI pipe, 3m long. | 40         | nos |                 |                    |                             |
| F3                          | Electronic earth pit with 65 ID GI pipe, 3m long for Electronic equipment earthing  | 10         | nos |                 |                    |                             |
| F4                          | Earth pit with 65 ID GI pipe, 3m long for 220 KV Lightning Arrestor                 | 6          | nos |                 |                    |                             |
| F5                          | Test link for earth pit   | 16         | nos |                 |                    |                             |
| GG                          | Structural steel fabrication & installation   | 25         | MT  |                 |                    | 1.4.0                       |
| GRAND TOTAL IN FIGURES (Rs) |   |            |     |                 |                    |                             |
| GRAND TOTAL IN WORDS (Rs)   |   |            |     |                 |                    |                             |

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