# **TENDER SPECIFICATION**

# BHEL: PSSR: NCTPS Stage III: PIPING:IBD VENT:SCT101

FOR

ERECTION OF INSULATION AND CLADDING SHEET FOR IBD TANK VENT LINE AT 1X800 MW NCTPS STAGE-III SITE, ATHIPATTU, CHENNAI-120



# TECHNICAL CONDITIONS OF CONTRACT (TCC)

# PROJECT INFORMATION:

1.1	Project Title	:	1 x 800 MW North Chennai Coal Based Super	
			Critical Thermal Power Project Stage III.	
1.2	Plant capacity	:	800 MW	
1.3	Type of project	•	Brown field	
1.4	Owner	•	Tamil Nadu Generation and Distribution	
1.7	o wher	•	Corporation Limited (TANGEDCO)	
1.5	Plant site location	:	In the premises of North Chennai Thermal	
			Power Station (NCTPS)	
1.6	Location co-ordinates	:	80° 19' E to 80° 20' E Longitude	
			13° 13' N to 13° 18' N Latitude	
1.7	Nearest Village	:	Ennore & Puzhudhivakkam Village	
1.8	Nearest Town & City	:	Chennai (35 Km)	
1.9	State Capital	:	Chennai (35 Km)	
1.10	Nearest Railway Station	:	Athipattu Pudunagar (~ 5 Km) on Chennai -	
			Vijayawada Line	
1.11	Nearest Airport	:	Chennai (~ 60 Km)	
1.12	Nearest Seaport	:	Ennore (~ 3 Km)	
1.13	Nearest Road access	:	All weather road from Pattamandri on the	
			Thiruvottiyur – Ponneri highway	
2.0	Meteorological Condition			
2.1	Climate	:	Tropical, very dry and hot summer, dry and cold	
			winter and good rain-fall in monsoon	
			accompanied with strong wind	
2.2	Site Elevation	1		
	Site Lievation	:	(+) 10.0 Meter above Mean Sea Level	
2.3	Ambient Temperature	:	(+) 10.0 Meter above Mean Sea Level	
2.3 a.			(+) 10.0 Meter above Mean Sea Level 45 °C	
	Ambient Temperature			
	Ambient Temperature Annual Maximum Mean	:		
a.	Ambient Temperature Annual Maximum Mean Temperature	:	45 °C	
a.	Ambient Temperature Annual Maximum Mean Temperature Annual Minimum Mean	:	45 °C	
a. b.	Ambient Temperature Annual Maximum Mean Temperature Annual Minimum Mean Temperature	:	45 ℃ 15 ℃	
a. b.	Ambient TemperatureAnnual Maximum MeanTemperatureAnnual Minimum MeanTemperatureDesignambient	:	45 ℃ 15 ℃	
a. b. c.	Ambient TemperatureAnnual Maximum MeanTemperatureAnnual Minimum MeanTemperatureDesignambientTemperature	:	45 ℃ 15 ℃	
a. b. c. 2.4	Ambient TemperatureAnnual Maximum MeanTemperatureAnnual Minimum MeanTemperatureDesign ambientTemperatureRelative Humidity	:	45 ℃ 15 ℃ 30 ℃	

# **TECHNICAL CONDITIONS OF CONTRACT (TCC)**

**SCOPE OF WORK**: Erection of insulation and cladding sheet on IBD tank vent line along with temporary support removal.

**MANPOWER**: The required manpower for completion of the entire work has to be deployed immediately after receipt of work order.

In case of not deployment, BHEL shall deploy the required category manpower to meet the site requirements and cost incurred shall be at risk and cost of the contractor.

### T&Ps:

- 1. Welding machines -As required
- 2. Grinding machine As required
- 3. Gas cutting sets As required
- 4. Consumables like welding electrodes, gas/o2 cylinders, cutting wheels as required.
- 5. All other Tools and tackles as required.

**TIME SCHEDULE**: Time schedule for completion of work from award of work will be 60 days.

#### GUARANTEE PERIOD: Not Applicable

**SECURITY DEPOSIT**: - Upon acceptance of Tender, the successful Tenderer should deposit the required amount of Security Deposit for satisfactory completion of work, as given below:

-The total amount of Security Deposit will be 5% of the contract value.

-The Security Deposit shall not carry any interest.

-If the value of work done at any time exceeds the contract value, the amount of Security Deposit shall be correspondingly enhanced and the excess Security Deposit due the enhancement shall be immediately deposited by the Contractor or recovered from payment/s due to the Contractor.

- Security Deposit (SD) amount shall be released after completion of guarantee period/contract period.

# **TERMS OF PAYMENT**

Payment will be done after successful completion of work and submission of joint protocol.

1) Payment shall be released on certification by BHEL Engineers and Log sheets submission.

2) The payment shall be made within 60 days after completion of work to the satisfaction of the Engineer.

3) Rates quoted shall be exclusive of GST, which shall be paid separately, as applicable for the work.

4) Billing & Delivery Address:

BHEL PSSR SITE OFFICE 1x800 MW NORTH CHENNAI TPS, ATTIPATTU PUDU NAGAR, CHENNAI, TAMIL NADU 600 120. BHEL GST No:33AAACB4146P2ZL

### **OTHERS:**

a. The contractor has to start as instructed by BHEL Engineer on receipt of work order.

b. In case of any delay in contractor side, BHEL reserves to carry out the works on Risk and cost basis. c. Bidder is advised to get himself acquainted with the prevailing local conditions & have an idea of abovementioned scope of works.

d. All statutory requirements should be ensured. e. Medical facilities of manpower engaged are in scope of contractor and any injury to the manpower, the related medical facilities and compensation to be provided only by the contractor.

**HSE**: All HSE norms like use of PPEs, availability of potable water and ensuring safe working condition shall be ensured by the bidder.

**ELECTRICITY:** Construction power will be provided to the contractor at one point within plant area by BHEL on chargeable basis at the applicable rate of TANGEDCO under LT tariff VI at the nearest substation.

The present LT tariff VI rate of TANGEDCO is Consumption charges at Rs.12.00 per unit

Fixed charges as applicable per month

Electricity Tax on total amount

The TANGEDCO tariff and tax may vary from time to time. The required Energy meter for measuring the consumption shall be provided and installed by the contractor. Any dispute regarding consumption, the BHEL engineer's decision is final. The contractor shall make his own arrangement for further distribution with necessary isolator / LCB etc.

Any duty, deposit involved in getting the Electricity shall be borne by the bidder. As regards to contractor's office shed also, all such expenditure shall be borne by the contractor.

Provision of distribution of electrical power from the given single common point to the required places with proper distribution boards, approved cables and cable laying including supply of all materials like cables, switch boards, pipes etc., observing the safety rules laid down by electrical authority of the State / BHEL / their customer with appropriate statutory requirements shall be the responsibility of the tenderer / contractor.

The required energy meter for measuring power consumption will be provided BHEL and installed and taken care by the contractor.

Necessary "Capacitor Banks" to improve the Power factor to a minimum of 0.9 shall be provided by the contractor at his cost. Penalty if any levied by customer on this account will be recovered from contractor's bills.

BHEL is not responsible for any loss or damage to the contractor's equipment as a result of variations in voltage / frequency or interruptions in power supply.

# **DRINKING WATER**

Bidder shall provide drinking water at the work spot at their cost.

#### **CONSUMABLES:**

• All required consumables like electrodes, all gases, and other materials for this scope of work are to be arranged by the contractor at their cost.

• All the required electrodes (in his scope) as approved by BHEL shall be arranged by contractor at his cost. It shall be the responsibility of the contractor to obtain prior approval of BHEL, before procurement regarding, suppliers, type of electrodes etc. On receipt of the electrodes at site, it shall be subject to inspection and approval by BHEL. The contractor shall inform BHEL details regarding type of electrodes, batch number and date of expiry etc.

• The following minimum **major Tools & Plants** (**T&P**) shall be arranged by the Contractor of this tender within the quoted rate.

Sl. No	Description	Qty
1	Welding machines	As and when required
2	Other misc. T&Ps, gas cutting set, grinding m/c and wheel, hoses, chain blocks, spanners, screw drivers, cutting plier, lug crimping tool	As and when required
3	Tractor/ Trailer/Hydra crane(12MT/14MT)	As and when required
	for shifting materials	

• T&P shown in the above-mentioned list is **tentative requirement considering parallel working** in all areas mentioned in scope of work. However, mobilization schedule and quantity/ numbers as mutually agreed at site for major T&Ps, have to be adhered to. Numbers/ time of requirement of T&Ps will be reviewed time to time by BHEL site and contractor will provide required T&P/ equipment's to ensure completion of entire work within schedule/ target date of completion without any additional financial implication to BHEL. Vendor will give advance intimation & certification regarding capacity etc. prior to dispatch of heavy equipment's. Also, on completion of the respective activity, demobilization of T&P in total or in part can be done with the due approval of engineer in charge. Retaining of the T&P's during the contract period will be mutually agreed in line with construction requirement.

• Other T&P's such as Chain Pulley Blocks, Grinding Machines, scaffolding pipes, temporary platform arrangement other minor T&P's are to be arranged by the contractor to meet the erection requirement and Time schedule. In any case work shall not affect due to non-availability of such T&P's

# **TECHNICAL CONDITIONS OF CONTRACT (TCC)**

GCC and SCC Clauses not applicable for Tender

Following clauses of General Conditions of Contract (GCC), Special Conditions of Contract (SCC),

Forms and Procedures are proposed to be excluded:

GCC Exclusion

- 1.9 Earnest Money Deposit
- 2.9 Progress Monitoring, Monthly review and Performance Evaluation,
- 2.10 Time of Completion,
- 2.11.2, 2.11.4 & 2.11.6 Extension for Time of Completion,
- 2.12 Over Run Compensation
- 2.13 Interest Bearing Recoverable Advance,
- 2.14 Quantity Variation,
- 2.16 Supplementary Items,

2.17 - Price variation compensation (PVC) The following SCC Clauses proposes to be excluded/relaxed as per Indent: NIL Other clauses of Standard GCC & TCC shall remain unchanged.

The following SCC Clauses proposes to be excluded/relaxed as per Indent: NIL

Other clauses of Standard GCC & TCC shall remain unchanged.