**TENDERS SPECIFICATION No: MWT -22/2025-26**

SUPERINTENDING ENGINEER/OMC CIRCLE,

TGTRANSCO, MAHABUBNAGAR.

Name of the Work :- Replacement of existing aged 132 kV SF6 Circuit breaker of 132 kV Bhoothpur CKT-2 at 132/33 kV SS Mahabubnagar .

Tenderer’s Name & Address:

M/s\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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TRANSMISSION CORPORATION OF TELANGANA LIMITED

SUMMARY SHEET

TENDER SPECIFICATION No. MWT -22/2025-26 of Superintending Engineer/OMC/MBNR.

1. Name of the work : Replacement of existing aged 132 kV SF6 Circuit breaker

of 132 kV Bhoothpur CKT-2 at 132/33 kV SS

Mahabubnagar .

2. Officer to whom Tenders :Superintending Engineer/OMC/Circle

shall be submitted Mahabubnagar.

|  |  |  |  |
| --- | --- | --- | --- |
|  | 3. Superscription on the sealed cover | : | 1)Name of the work:  2)Registration No. of the Vendor, if any.  3)Tender against specification No  4)Payment of E.M.D. and Tender  Specification cost: Details of D.D. i.e.,  D.D.No., Date & Amount etc., or details of  online payment.  5)Whether 90 days validity offered  Yes/No  6)Whether TGTRANSCO Payment Terms  Accepted Yes/No  (Tenders without above superscription or in  other form are liable to be rejected) |

1. Schedule Sale Opening Date : 18.08.2025 at 13.00 Hrs.
2. Last Date & Time of receipt of Tender. : 17.09.2025 at 15:00 Hrs.
3. Date and Time of opening of Tender. : 17.09.2025 at 16:00 Hrs.
4. Place of opening : O/o Superintending Engineer, OMC

Circle, Mahabubnagar – 509001.

1. Approx. Face Value of the work : Rs.3,89,402/-/- (Inclusive of all Taxes but Exclusive of

Seignorage Charges & GST on Seignorage Charges).

9 Bid Security to be paid : 2.5 % of the value of the work of Rs.9735/-

in the form of Demand Draft in favour of

Superintending Engineer/OMC Circle,

Mahabubnagar payable at Mahabubnagar. **or** online

payment Account details mentioned in TERMS

AND CONDITIONS –Clause No.6.

1. Performance Security : 5% of the Contract value.

Sd/-

Superintending Engineer,

OMC Circle, Mahabubnagar.

**TERMS AND CONDITIONS**

A –GENERAL

**NAME OF THE WORK:-** Replacement of existing aged 132 kV SF6 Circuit breaker of 132 kV Bhoothpur

CKT-2 at 132/33 kV SS Mahabubnagar.

1. The bidder has to quote the rate for the complete work in terms of figure in Percentage (%) in Sl.No.2 against the value of the work (inclusive of all Taxes) mentioned in Sl. No.1 and corresponding both in figures & words after loading Percentage (%) shall be indicated in Sl. No.3 in Schedule B. Partial filling of Schedule and incomplete Schedules or unsigned Schedules will be rejected. The sealed Tender cover should be addressed to Superintending Engineer/OMC Circle TGTRANSCO/Mettugadda/Mahabubnagar - 509001.
2. The envelope containing sealed Tender must be with the superscription indicating.

1)Name of the work:

2)Registration No. of the Vendor, if any.

3)Tender against specification No

4)Payment of E.M.D. and Tender Specification cost: Details of D.D. i.e., D.D.No., Date & Amount etc.,

or details of online payment/ EMD exemption particulars.

5)Whether 90 days validity offered : Yes/No

6)Whether TGTRANSCO Payment Terms Accepted : Yes/No(Tenders without above superscription or

in other form are liable to be rejected)

3. **Eligibility Criteria:**

a) The Bidder should be a reputed Agency in the business for the past 2 years at least

and should have executed similar works in TGTRANSCO /TSGENCO/DISCOMS or any

other Government Departments. (Optional).

b) Should be a registered Contractor with TGTRANSCO / TSGENCO/DISCOMS or any

other Government Department.

c) The Bidder should have a valid “A” Grade License/Civil License issued by Govt. of Telangana.

d) The bidder in his name should not have more than two similar works on hand in the Zone and also should enclose the copy of latest satisfactory certificate of last work done issued by order placing authority of state power utility/Government Organizations/PSU Only.

4. **RATES: -**

The rate should be firm in Rupees and offered rate should be quoted in Schedule B for the work specified including material and labor and also against ‘Total’. The rate quoted shall be inclusive of all Taxes and Seignorage charges & GST on Seignorage Charges is extra. Every Contractor is expressed, before quoting his rates to inspect the site of the proposed work. The Transmission Corporation of Telangana Ltd., will not however pay any extra charges for any other reasons, in case the Contractor is found later on to have misjudged the Work/Materials to execute the work. The rate quoted by the Contractor shall be firm for complete period of work.Tenders without signature of the Contractor in the space provided will be rejected.

1. **PERIOD OF CONTRACT: -**

The period of Contract is 3 (Three) Months from the date of handing over of site. The TGTRANSCO has right to terminate the Contract without assigning any reasons and no compensation will be paid for the balance period of Contract.

6. **BID SECURITY: -**

Bid Security for an amount of Rs.9735/- equivalent to 2.5% of estimated value of work by way of Demand Draft drawn in favor “Superintending Engineer /OMC Circle/Mahabubnagar”, Payable at Mahabubnagar should be enclosed to the tender. Tenders not accompanied by such D.D’s towards Bid Security is liable to be rejected or make online payment as details mentioned here under.

The Bid Security will be refunded in the case of unsuccessful bidder only after finalization of Tenders. The Bid Security will be adjusted towards Performance Security in case of successful bidder.

No interest will be paid on Bid Security. Bid Security is exempted for Contractors Belonging to SC/ST categories. They must enclose the attested copies of certificate of exemption by TGTRANSCO/MSE and Caste certificate issued by Mandal Revenue Officer with the specification without which the Tender will be rejected.

**Online Payment Account Details: -**

Account No. : 62154919867

Account Name : SE OMC Mahabubnagar

Bank Name : State Bank of India

Branch : Padmavathi Nagar Colony

IFSC Code : SBIN0020856

MICR Code : 509002013

CIF No. : 72068388409

**7**.**PERFORMANCE SECURITY: -**

**7.1** The successful bidder shall furnish performance security equal to Five percent (5%) of the Contract Value

for the proper fulfillment of contract to cover the 12 months guarantee period, and if he fails to do so, the Bid Security will be forfeited and the contract awarded will be cancelled without assigning any reasons there for The bid security paid will be adjusted for part of performance security. The Performance Security will be released after 12 months after satisfactory completion of work entrusted which will not carry any interest. The Performance Security shall be forfeited, if the contractors do not fulfill the terms and conditions of works contract. The Performance Security shall be furnished by way of DD/Online payment.

**7.2 PERFORMANCE GUARANTEE:-**

The works executed should be guaranteed for satisfactory performance for period of 12 months from date of completion of work. If any defects are noticed during this period, it is responsibility of contractor to rectify/repair the work free of cost to TGTRANSCO within reasonable time as directed by Engineer in charge.

**8. DECLARATION OF RELATIONSHIP: -**

The Contractor shall declare their relationship, if any with the Officer/Directors of TGTRANSCO/TSGENCO/DISCOMS along with the Bids/Tenders. The bids not accompanying the above certificate will be rejected. The declaration must be furnished in the format given in Annexure-II. Any false information furnished in the declaration/disclosure, if found later the Contract is liable for termination as well as recovery of damages. The list of relatives is mentioned in Annexure-III.

**9**. **VALIDIY: -**

The quotation shall be valid for 90 days. The TGTRANSCO reserves the right to extend the validity of the Tender.

**10**. **AGREEMENT: -**

The successful Contractor should enter into an Agreement with TGTRANSCO on Non-Judicial stamped paper for the value specified by the TGTRANSCO within one month from the date of Letter of Intent issued.

**11**. **ACCEPTANCE OF BID:-**

The TGTRANSCO reserves the right to accept or reject any bid without assigning any reasons what so ever and no correspondence will be made in this matter i.e., the decision of the Superintending Engineer/OMC Circle, Mahabubnagar will be final in evaluation of bids and awarding of work.

**12**.**PAYMENT: -**

1. 90% payment of the work done will be made at reasonable intervals for the work executed. No claims are entertained for any delay in payments due to unforeseen circumstances. Payments will be subjected to deductions towards Income Tax as per the Income Tax Department rules in vogue. Out of balance 10% amount, the first 5% payment will be released after completion of all the works, provided the material account is settled. The final 5% payment will be released after completion of the Guarantee period subject to settlement of material account. The Paying Officer is Superintending Engineer/OMC/Circle/ Mahabubnagar.
2. The Contractor should prepare his own bills in triplicate (in standard TGTRANSCO Forms) accompanied by copies of ‘T’ Notes if any, duly acknowledged by the officer in charge and send the same to the Assistant Engineer and Assistant Divisional Engineer concerned for check and thus for payment to the paying authority. Rates quoted shall be inclusive of all taxes. The Income tax and Sales Tax will be deducted at source from the bills submitted for payment as per the relevant Acts, Rules and Regulations there under at the rates prevailing at that time.
3. All statutory deduction towards Income Tax, Telangana Contracts Tax etc., will be deducted in the bills. The Transmission Corporation of Telangana Ltd. will not however pay any extra charges for any other reasons, in case the Contractor is found later on to have misjudged the Work/Material to execute the work.
4. Whenever it is found that the Contractor has received any excess payment by mistake or if any amounts are due to Contractor due to any reasons, and when it is not possible to recovery such amounts, TGTRANSCO reserves the right to collect the same from any other amounts and Bank Guarantee/Bid Security/Performance Security given by the Contractor due to or with the TGTRANSCO.

**13. PENALTY: -**

The completion period committed shall be deemed to be the essence of the Contract. In case of delay in completion of work whatever be the reasons, the TGTRANSCO may at its option demand and recover from the Contractor an amount equivalent to 0.5% of the value of the works not completed within the prescribed time limit for every week of delay or part thereof., subject to a maximum of 5% of the total value of the Contract. This right of TGTRANSCO shall be without prejudice to the rights under the law, including the right to cancel the Contract forfeit the deposit and recover damages for breach of Contract.

**14. STATUTORY RULES, ACT & REGULATIONS: -**

The Contractor shall indemnify TGTRANSCO Ltd., against all claims which may be made under the Workmen’s Compensation Act or any statutory modification thereof or rules there under or otherwise for in respect of any damage or compensation payable in consequence of any accident or industry sustained by any workmen engaged in the performance of the business relating to this Work Contract. In all cases of personal injury to workmen employed by a Contractor on the work for which the Contractor is liable to pay compensation medical fee to Medical Officer for issue of ‘c’ – ‘d’ Forms as prescribed.

a) The Contractor shall indemnify TGTRANSCO against all claims which may be made under the Minimum Wages Act and Child Labour Act or any statutory modification thereof on rules there under or otherwise for in respect of any damage or compensation arising in consequence of any dispute under these Acts.

b) The Contactor shall indemnify the TGTRANSCO against all claims which may be made in respect of any person employed by the Contractor on these works towards Insurance charges or claims what so ever.

c) The form of Contract will be lump sum.

1. The rates and prices quoted by the Contractor while submitting the Tender shall be firm till the work is completed. The quoted rates shall be binding on the Contractor even for the award of part work.

**15. The Contractor has to enclose the following documents in support to the Tender: -**

1. Attested copy of valid Solvency Certificate issued by Bank/Revenue authority of Sales Tax Clearance Certificate.(Optional).
2. If the Contractor is a partnership concern, an attested copy of partnership deed and Form “C” Certificate or certified copy of Form “A” showing all the names of partners obtained from the Registrar of Firms.
3. Attested copies of Credentials of similar nature of work undertaken previously in TGTRANSCO/TSGENCO/DISCOMS or any other Departments like PGCIL or SEB’s etc.
4. Details of similar nature of work undertaken previously in TGTRANSCO/TSGENCO/DISCOMS or any other Departments like PGCIL Or SEBs etc.,
5. Latest Postal Addresses and Telephone numbers. The Name/Postal address shall be furnished.
6. EMD Amount & Cost of the Specification.
7. Valid Vender Registration with TGTRANSCO/ TSGENCO/DISCOMS or any other Government Department.
8. Valid ‘A’ Grade License issued by Electrical Licensing Board/Civil License issued by Govt. of Telangana.

ix)Copy of G.S.T. If Registered Vendor or unregistered vendor on letter firm Letter Head

x) Copy of AADHAR & PAN.

**16**. The Contractor is responsible for any accidents caused to the Personnel/Labour deployed by him for carrying out the Contractor work and damage to the TGTRANSCO property during the period of Contract. The Contractor is responsible for the loss sustained by TGTRANSCO due to damage to the Equipment or Personnel or any other agency in TGTRANSCO premises arising out of carelessness/negligence on part of Contractor or his representative.

**17**. The Contractor should follow all Statutory Rules, Act and Regulations that are relevant and necessary for carrying out the work.

**18**. The Contract will be liable for termination if the work is not being carried satisfactory in accordance with the specified work or if the Terms and Conditions of the Agreement are breached.

**19**. No child labour should be employed.

**20**. The Contractor may engage persons, who are skilled and capable as required by him for the said work.

**21**. TGTRANSCO has got full powers to decide the Tenders and is not bound to accept the lowest Tender.

**22**. TGTRANSCO also reserves the right to cancel or reject all or any Tender (s) without assigning any reason and without being liable to refund the cost of Tender document there upon.

**23**. Any other Terms and Conditions as per TGTRANSCO Rules and Regulations, not covered herein will be binding on the Contractor.

**24**. The Tender must enclose the certificate duly signed by him accepting the Terms and Conditions of this specification as per the Annexure.

**25**. All disputes arising out of this Contract should be decided in the Courts situated in Mahabubnagar District Jurisdiction only.

**26.** The Tenderer shall note that in case of carrying out the work in the vicinity if equipments/live parts in service, care must be taken to avoid any accidents. If any work is to be done on any of the equipment/Line/Tower, the Tenderer his representative shall ensure that such works will be carried out only after obtaining proper line clear. It may clearly be noted that in no case the TGTRANSCO Ltd., will be responsible for any accidents that may occur and for any compensation to be paid arising out of the accidents.

Sd/-

Superintending Engineer

OMC Circle, Mahabubnagar.

**B -Technical Terms & conditions (Electrical & Civil)**

* + - 1. **COMPLIANCE WITH REGULATIONS:**

**WORKMANSHIP:**

The workmanship shall be of the highest grade and the entire work in accordance with the best modern practice and in conformity with this specification.

**ELECTRICITY RULES:**

All works shall be carried out in accordance with the relevant clauses of the Indian Electricity Act and Rules unless modified by this specification. In case of variation between the two, the latter shall be binding on the contractor.

**c)** Unless otherwise specified, works shall be carried out in accordance with the Indian Electricity Act, 1910, Indian Electricity Rules, 1955 or any revisions thereof, which may be issued during the currency of the contract and the requirements of any other Regulations and Acts in India to which the TGTRANSCO may be subjected to. All railway track, communication line or other important track crossings and routing of the line through air field region shall conform to the relevant rules and procedure as may be laid down by Railway, Communications, Aviation or other concerned Authorities from time to time.

Aviation signals will have to be provided at the top of the towers in the vicinity of Civil and Military aerodromes or airfield regions, if any. Similar provisions will have to be made on the special river crossing towers. The rates for tower erection shall include such works also.

**2 TECHNICAL SPECIFICATION:**

**2.0 STANDARD SPECIFICATIONS:**

Unless otherwise specified, works shall be carried out in accordance with relevant Indian standards and T.S.D.S.S. or any revision thereof which may be issued during the currency of the contract, and all the clauses relating to materials and workmanship, responsibilities, liabilities, commencement of works, completion delays and extensions, suspension works, and forfeitures etc., as provided in the T.S.D.S.S. shall be binding.

**2.1 CODES AND STANDARDS**

All equipment materials fabrication galvanizing and tests shall conform to the latest applicable standards, codes etc. mentioned here in or to equivalent applicable international standards approved by the engineer

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**Sl. STANDARD TITLE**

**No.**

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1. IS 8112/1989 43 grade ordinary Portland cement

2. IS 1786/1985 High strength deformed steel bars and wires for concrete reinforcement

3. IS 456/1978 Code of practice for plain and reinforced

Concrete

4. IS 383/1970 Course and fine aggregates from natural

sources for concrete

5. IS 2062/1992 Steel for general structural purposes

6. IS 432(Part-1& / Mild steel and medium tensile steel bars and

Part-2)/1982 hard drawn steel wire for concrete

reinforcement.

7. IS 12427/1988 Transmission Tower Bolts

8. IS 1367 (part II) Technical supply conditions for threaded

steel fasteners - Product grade and

tolerances

9. IS 1363 (part III) Hexagon Nuts(size range M5 to M64)

10. IS3063/1994 Fastners - single coil rectangular section

spring washers

11. IS2629/1985 Recommended practice for Hot dip galvanizing

on Iron & Steel

12. IS4759/1984 Hot dip Zinc coatings on structural steel and

allied products.

13. IS7181/1986 Horizontally C.I double flanged pipes for

water, gas and sewage valve fittings for

compressed gas

14. IS3224/1979 Cylinders excluding liquified petroleum gas

cylinders

15. IS5039/1983 Distribution pillars for voltages not

exceeding 1000 volts

16. IS4072/1975 Steel for spring washers

17. IS1573/1986 Electroplated Coatings of Zinc on Iron &

Steel

18. IS513/1994 Cold rolled low carbon steel sheets and strips

19. IS617/1975 Alluminium and alluminium alloy ingots

and castings for general engineering

purposes

20. IS5561/1970 Electric power connectors

21. IS486(Part-I)/ Metal fittings of Insulators for overhead

1993 power lines with normal voltage greater than

1000V - General requirements & Tests

22. IS2486(Part-2)/ Insulator fittings for overhead power lines 1989 with a nominal voltage greater than 1000V -

Dimensional requirements

23. IS2108/1977 Blackheart malleable iron castings.

24. IS2486/ Hardware fittings, clamps and connectors

25. IS4984 P.V.C. Pipes

26. TSTS Telangana Standard Specification.

**SAFETY PLANS:** The following safety plan shall be observed and followed by the contractor for execution of the work safely.

# **3.0** **GENERAL SAFETY RULES FOR FOUNDATIONS, TOWER ERECTION & STRINGING:**

1. Steel/ Aluminums /Wooden ladders of 3.5 length shall be used for movement of labour in excavation, stub setting and concreting works. Keep cement out of the eyes.
2. All polypropylene ropes and slings, shackles proposed to be used shall be tested and inspected thoroughly before use.
3. Walkie-talkie sets shall be used for effective communication.
4. Binoculars shall be used for closer view
5. Red and Green flags shall be used for illiterate communication.
6. Pilot wires and joints shall be tested and thoroughly inspected before use
7. Ropes and guy wires shall be tested and thoroughly inspected before use
8. Ensure travelers in frictionless and good condition.
9. Load rating of stringing, pulling lines, conductor grips, load bearing hardware and accessories, rigging and hoists shall not be exceeded.
10. Traveler grounds should be installed at the first and last tower between tensioner and puller, when stringing in proximity to energized lines. Traveller ground at a maximum distance not exceeding 3 KM. Personnel shall never be in series with a ground lead.

Traveler grounds shall have a suitable grounding stub located in an accessible position to enable placing and removing the ground clamps with hot sticks when necessary.

11. The conductor reel stands shall have breaking device to prevent over running and backlash as the conductor is pulled out.

12. The location of the puller, tensioner and intermediate anchor sites shall be selected such that the structures are not over loaded.

13. Slack shall be removed from all anchor lines prior to loading to minimize the possibility of equipment movement or impact loads to the anchors.

14. All equipment, conductors, anchors and structures within the work area shall be bonded together and connected to the ground source.

15. A running ground shall be installed between the reel stand and tensioner for conductor, or puller for pulling line, and the first tower.

16. When clipping is being done, care must be exercised to ascertain that the conductors are grounded prior to clipping, placing a local ground upon the conductor at the location of work.

17. Care must be exercised to ensure that concentrated load of the men, car and equipment does not increase the sag appreciably to cause a hazard from obstructions over which the car will pass while installing spacers in bundle conductors.

18. If two conductors are to be spliced, the conductors shall be bonded and grounded before being spliced.

19. To cross over of energized lines, the line clear permit system shall be followed without any ambiguity to de-energize the lines. The de-energized lines shall be earthed effectively. Men and material clearance on line shall be ensured before returning permit.

Sd/-

Superintending Engineer

OMC Circle, Mahabubnagar

**(Cvil)**

CLAUSE NO TITLE

1. Technical specification for common building materials
2. Technical specification for excavation
3. Technical specification for back filling
4. Technical specification for cement concrete
5. Technical specification for reinforced concrete

**1.0 TECHNICAL SPECIFICATION FOR COMMON BUILDING MATERIALS**

The aggregates such as sand, metal shall be obtained from the source as indicated in lead statements.

**1.1 INDIAN STANDARDS:**

The aggregates both fine and coarse shall comply with the requirements of I.S.456 for concrete and I.S.383 for sand for use in rendering, plastering and mortar except as hereinafter stated and shall be delivered to and maintained at the site, clean, washed and free from dirt.

**1.2 SAMPLES**:

Samples shall be submitted to the Engineer and all aggregates used in the work shall be at least equal to the approved sample .

**1.3 FINE AGGREGATE**:

The fine aggregate for concrete, shall consist of naturally occurring and graded in accordance with the requirements of IS.383 for grading Zone‑2 or grading Zone‑3 except that no particle shall exceed 3/16 inch. It shall be free from excessive sharpness. Fine aggregate for cement mortar and1 rendering plastering shall comply with IS 383.

**1.4 COURSE AGGREGATE:**

Coarse aggregate shall be graded to produce sound concrete and for reinforced concrete shall be such that at least 5% by weight will pass a mesh of a size 1/4 per inch less than the minimum lateral distance between the reinforcing bars or 1/4 inch less than the minimum cover, whichever is smaller.

**1.5 WATER FOR CONCRETE:**

Clean fresh water shall be used for mixing concrete grout and mortar and curing. The water used for mixing and curing shall be free from deleterious matter and acids and alkaline substances in a solution or suspension. Potable water shall generally be used for mixing and curing concrete.

**1.6 WATER FOR DRINKING:**

ALL POTABLE WATER SHALL BE FREE FROM DELETORIOUS MATTER AND SHALL BE EQUAL TO OR BETTER than the minimum standard acceptable to the local and state authorities. Filteration and chlorination by approved means shall be installed as necessary to obtain the required standard. Storage and distribution of potable water shall be such as to prevent contamination.

**1.7 CEMENT**

Ordinary Portland cement of Grade 43 manufactured as per IS 8112 of 1989 shall only be used.

Storage, certification, delivery and testing of the cement shall conform to IS:269, IS:8112 or the latest issue.

IS certification mark is obligatory.

Cement procured from major cement manufacturing plants such as M/s Raasi, M/s Vishnu, M/s Andhra cement co., ACC, CCI, M/s L&T and Coramandel, Priyadarshini, Madras Cements etc will only be accepted for which prior approval shall be obtained from the employer. Copies of invoices and test certificates from the cement manufacturers shall be submitted by the contractor to the Engineer and his clearance obtained before actual use. Such clearance will be provided within a maximum period of one week.

**1.8 REINFORCEMENT**

Steel required for reinforcement will be procured by the contractor The contractor shall workout the requirement immediately after taking over the site and receipt of working drawings and take the approval of the site Engineer and arrange for procurement

**2.0 TECHNICAL SPECIFICATION FOR EXCAVATION:**

This clause covers excavation to be done for all the civil works. Excavation rates for all soils for foundations of (i) structures (ii) walls for control room shall be quoted. This rate should be inclusive of dewatering, shoring & shuttering required if any. Sides and bottoms of excavation shall be vertically true. Blasting material for excavation in Hard rock required if any has to be procured by bidder himself. Necessary assistance in the form of approval for procurement of the material will be given by the Board to the extent possible. All rules under explosive act shall be followed by the successful Bidder. Blasting work shall be done only after approval by the site engineer during specified hours. The person in charge of blasting shall satisfy himself that all blasts have exploded before working people are permitted to re-approach work site. Withdrawal of unexploded charge will not be permitted under any circumstances. Unexploded charge shall be flooded with water and the hole marked in a distinguished manner. Another hole shall be drilled at a distance of about 450 mm of old hole in the direction of unexploded charge and fired in usual way. This process shall be continued till the original blast is exploded. Excavation in decomposed or soft rock shall be carried out by crow bars or pic‑axes or pneumatic drills etc. If he desires to do blasting, he shall obtain permission of site Engineer and do accordingly.

The rock obtained during excavation is the Board’s property and it shall not be used under any circumstances by the contractor. Rock excavated shall be stacked by the successful tenderer at a convenient place within the Substation switchyard as directed by the Engineer-in-charge at no extra cost.

**3.0 TECHNICAL SPECIFICATION FOR** **BACK FILLING:**

After completion of foundation, footings and walls and other construction below the elevation of the final grades and prior to back filling, all forms of temporary shoring, timber, etc., shall be removed and the excavation cleaned of all trash, debris and perishable materials. Back filling shall begin only with the approval of the Engineer‑ in charge. Back filling shall be done with inorganic materials obtained from the excavation of borrow pits, if suitable, and subject to the approval of the Board's Engineer‑in-charge. Back fill shall not be dropped directly upon or against any structure or facility where there is danger of displacement or damage. Backfill shall be placed in horizontal layers not to exceed 60 cm. in thickness. Each layer shall be compacted with proper moisture content and with such equipment as may be required to obtain a density equal to or greater than 95% of maximum as determined by the relevant Indian Standards. Trucks or heavy equipment for depositing or compacting back‑fill shall not be used within 1.5m of the foundation/structures, or other facilities which may damage by their weight or operation. The methods of compaction shall be subject to approval of the Engineer‑in- charge. Backfill adjacent to pipes shall be hand placed free of stones, concrete, etc., compacted uniformly on both sides of the pipe and where practicable, to a depth of 300 mm over the top of pipes, when tampering around piping care should be taken to avoid unequal pressures.

**4.0 TECHNICAL SPECIFICATION FOR CEMENT** **CONCRETE**:

**4.1 CODE OF PRACTICE:**

Except where otherwise specified, described or directed all concrete and reinforced concrete work shall be carried out in accordance with Indian Standard 456 Code of practice for plain and reinforced concrete.

**4.2 GAUGING CONCRETE:**

Aggregate shall be measured in proper gauge boxes. When measuring the fine aggregate due allowance shall be made for the moisture content and the bulk adjusted to suit the mix. The methods adopted for gauging the concrete materials shall have the approval of the Engineer-in-charge.

**4.3 CONCRETE PROPORTIONS:**

The concrete shall be of nominal mix as specified in the drawings or in the bill of quantities.

**4.4 CONSISTENCY:**

The quantity of water used shall be sufficient to produce a dense concrete of adequate workability for its purpose, which will surround and properly grip all the reinforcement.

**4.5 CRUSHING STRENGTH:**

The crushing strength of the concrete should be as specified in IS.456 for the proposed mixes.

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**4.6 GAUGING WATER**:

The General arrangements for the supply of water for mixing concrete shall be to the satisfaction of the Engineer who will determine the quantity of water to be employed in the mix according to the degree of moisture in the aggregate. The quantity of water thus determined shall be accurately measured for each separate mixing in a suitable container.

**4.7 MIXING CONCRETE**:

Concrete shall be thoroughly mixed to a uniform consistency in the mixing machines of approved types. Mixing shall continue until the cement is thoroughly distributed throughout the mass, and shall last at least two minutes or for 80 turns of the mixer after the whole of the water has been added. Any concrete showing signs of initial setting before being deposited shall not be used in the works and shall be removed from the site. The concrete shall be discharged from the mixer on to a level watertight platform or floor or into a water tight receptacle. Normally hand mixing of concrete will not be allowed but where the total quantity of concrete is considerably small, the mixing may be done by hand subject to the approval and entirely at the discretion and satisfaction of the Engineer-in-charge.

**4.8 QUALIFIED ENGINEER:**

The contractor shall employ qualified Engineer with a qualification of not less than a degree in Engineering who shall be responsible for all concreting carried out for the works. He shall be available at site at all times when concreting is being carried out.

**4.9 CONCRETE IN UNSUITABLE WEATHER:**

In the event of rain, storms or other severe weather conditions arising, concreting shall be stopped and appropriate temporary stop ends vee groves etc., placed as may be necessary. To meet such circumstances, the contractor shall always have in readiness on the site approved framed sheeting tarpaulins etc., for the protection of newly placed concrete. Should any concrete be damaged due to rain, streams or other weather conditions, the Engineer may order the cutting out /replacement of the damaged concrete at the expenses of the contractor.

**4.10 DEPOSITING CONCRETE:**

Before any concrete is put in, the contractor shall carryout any filling of pockets or trimming the sides where found necessary to suit the level and line of the concrete to be laid as directed by the Engineer at site. Unless otherwise approved, concrete shall be placed in one operation to the full thickness of members.

**4.11 Form Work:**

This clause is applicable for form work/ centering etc for all the civil works under the specification.

1. The form work shall conform to clause 10 of IS: 456 latest. The contractor entirely responsible for the sufficiency and efficiency of the form work, which term includes moulds, and also for the safe removal of the same. Before commencing the work he shall submit for the approval of the Engineer, details of the form work he proposes to use but such approval shall in no way relieve him of any of his responsibilities for the sufficiency and efficiency of the work and that it will be resistant to the strains imposed on it in vibrating the concrete and will retain all the fines in the concrete as may be necessary to provide the desired concrete surface.
2. The form work shall be designed and arranged so that it will not settle under the load and can be stripped and removed without causing any blemish or jar to the concrete.
3. For beam soffits the contractor shall provide cambers or such other form which will ensure that undersides of beams are truly horizontal or cambered to the extent shown in the drawings.
4. All forms shall be securely braced and supported to prevent any sagging or bulging during construction. In no circumstances shall wire ties be used. All chamber and radius strips. Liners and cores shall be provided where necessary and shall be due to space and securely fixed. All forms shall be fixed to the proper line and trued up immediately before depositing the concrete. All joints shall be close enough to prevent leakage liquid from the concrete.
5. Form work for all exposed faces of mass concrete and for all faces of reinforced concrete shall consist of approved material so finished as to produce the concrete surface, finish specified without any loss of fines and without honey-combing or bulges etc., strutting shall be of such design to allow accurate adjustment and easy removal.
6. Strutting of formwork against the sides of the structures that is subject to movement or vibration will not be permitted.
7. The inside faces of the forms shall be treated with mould oil or other approved preparation in either case, that will not have deteriorating effect either the strength or prevent the oil or other approved preparation coming into contact with the reinforcement.

**4.12 Removal of Form Work:**

The length of time between concreting and the removal of the formwork is the sole responsibility of the contractor. It shall, however, be competent, to the Engineer to require a minimum length of time. For structure foundation minimum time limit specified is 24 hours for removing formwork from date of placing concrete.

**4.13 Stop Ends:**

The position of temporary stop ends for vertical joints shall be as approved by the Engineer. Shuttering to form the stops shall be firmly fixed and secured round the reinforcing bars. Such concrete, as passes through the stops shall be hacked off and removed as soon as the concrete has set.

**4.14 Construction Joints:**

Recesses of approved size and type shall be formed in construction joints where required by the Engineer in order to form a key with the following concrete. The cost of all shuttering to construction joints shall be deemed to be included in the rates named in the priced bill of quantities. Before Depositing any concrete resting or abutting on work previously carried out the surfaces and ends of the existing work shall be thoroughly racked to such an extent that no portion of the previous surface remains. Thus roughened surfaces shall be thoroughly cleaned off, brushed and watered immediately before the succeeding operations are commenced. The roughened surfaces shall be coated with cement/sand mortar 1/2 inch thick immediately before the concrete of the next layer is placed (special care shall be taken to put the motor and fresh concrete thoroughly up against the hardened concrete).

**4.15 Cleanliness of Form Work:**

Before concreting is commenced all formwork shall be scrupulously cleaned and wetted, and the contractor shall adopt all necessary measures to ensure that all debris, dirt, wash water and other refuse is removed. The reinforcement and form work will then be inspected by the Engineer and concreting shall not be commenced until the Engineer gives permission. Such inspection shall not however relieve the contractor any of his responsibility for the correctness of the work in every respect.

**4.16 Execution of Concrete Work:**

Section limits: Concreting shall be carried out in Sections, not exceeding the limits specified for particular work.

**4.17 Casting Programme:**

The contractor's casting programme shall be such that such section of work can be satisfactorily completed in one operation after permission has been given to proceed. No claim for overtime working to complete a casting programme will be entertained.

**4.18 Conveyance of Concrete:**

The concrete shall be conveyed from the mixer to its place in the works as rapidly as possible and in such a manner that there shall be no separation or loss of the ingredients. In no circumstances shall more than half an hour lapse between the time when water is added to the mix and the time when the concrete is finally consolidated in position. The use of concrete distributing chutes at an angle of more than 45degrees from the horizontal will not be permitted without the prior written sanction of the Engineer. In no case shall concrete be dropped from barrows or otherwise from a height of more than one and half meters. The arrangements to be adopted by the contractor for conveying and depositing concrete shall be subject to the approval of the Engineer.

**4.19 Consolidating Concrete:**

Concrete normally shall be consolidated by means of sufficient number of mechanical vibrators. Hand ramming and tamping will only be allowed where specified or by the prior permission of the Executive Engineer. Hand ramming and tamping where permitted shall be sufficient and efficient such as to produce uniform consolidation.

* 1. The concrete shall be thoroughly worked around reinforcement and against shutters so that all entrained air is duly expelled and the concrete surface when stripped be found to be good and free of the formation of air pockets, honey combing or other defects.

**4.21** The concrete shall be worked into position where placed and not allowed to flow, for sloping beams the work of depositing concrete shall start from the lower end and work upwards.

**4.22** Except where arrangements, approved by the Engineer are made for placing concrete under water, the areas on which concrete is to be deposited shall be made and kept free from standing water during concreting operations and running water crossing or entering such areas shall be brought under control before concreting is commenced.

**4.23 Finish of Concrete Surfaces:**

Immediately any wrought or metal faced for work is struck the surface of the concrete will be inspected by the Engineer and after any remedial work directed or permitted by the Engineer has been completed to his satisfaction, the contractor shall remove all form marks and other imperfections in order to give uniform appearance. The cost of this work shall be included in the rates for concrete.

**4.24** Floor surfaces shall be worked to a smooth even finish to correct levels of falls as indicated in the drawings or as directed.

**4.25** Where so directed, concrete floor surfaces shall be treated with silicate of soda grade P.84 diluted with four times its volume of water applied to the work with a watering can or spray and afterwards spread evenly with a mop or brush. Twenty-four hours later a second application shall be made and, if any surface still appears porous, further applications of the solution shall be given until the work will absorb no more. Any excess of liquid on the surface after the last coat has been absorbed shall be removed and the surface allowed drying. When dry it shall be washed with the plain water.

**4.26 CURING**:

The curing period shall commence immediately after the concrete is finally trowelled or succeeded and continue for a period of 21 days. The top and side surfaces of concrete shall be kept moist and be protected from the direct rays of the sun during the period. The contractor shall submit to the Engineer, his proposals for ensuring continuous protection of the concrete during the curing period.

**4.27 DEFECTIVE WORK:**

CONCRETE WHICH IS DEFECTIVE FROM ANY CAUSE WHAT SO EVER SHALL, IF SO DIRECTED By THE ENGINEER, be cut out and the work reconstructed at the successful bidder's cost. No concrete thus cut out shall be reused.

**5.0 TECHNICAL SPECIFICATION FOR** **REINFORCED CONCRETE:**

The preceding clauses relating to concrete generally shall be read in conjunction with these following:

**5.1 MIXES**:

The mixes of concrete shall be as specified in the bill of quantities or shown in the drawings.

**5.2 COVER TO REINFORCEMENT:**

The reinforcement shall in all cases be covered with no greater and no less than the minimum thickness of concrete specified shown in the drawings. Where two bars cross, the outer should have the minimum cover and no more.

**5.3 FORM BOLTS:**

Any form bolts that are in the concrete shall be withdrawn when the forms are stripped. They shall not be placed within 2 inches of any steel reinforcement, so that the holes they leave do not reduce the effective cover on the steel.

**5.4 BENDING REINFORCEMENT:**

Bends, cranks or other labours on reinforcing bars shall be carefully formed exact in accordance with the drawings, otherwise, all bars shall be truly straight . Bends shall be made cold round a former having a diameter of at least four times, the diameter of the bars. Heating of bars for any purpose what so ever will not be allowed.

**5.5 SPLICING REINFORCEMENT:**

Where splices or overlapping in reinforcement are required the bars shall be provided with such splices or overlaps shown in the drawings. No bars may be jointed by welding unless special permission in writing has previously been given by the Engineer, in applying for such permission the contractor shall supply full details of the method he proposes to use.

**5.6 FIXING REINFORCEMENT:**

The number, size, form and position of all steel reinforcing bars, ties, links, stirrups and other parts of the reinforcement shall be exact in accordance with the drawings, and such parts shall be kept in the correct positions in the forms without displacement during the process of working the concrete into place. Space bars, supporting stools and distance pieces to maintain the reinforcement in the correct position shall be provided by the contractors as directed by the Engineer, without any extra cost to the Board.

**5.7** The use of timber blocks for welding the steel of the forms will not be permitted.

**5.8** All straight bars shall be fixed parallel to each other and to the sides of the forms. Any ties, links or stirrups connecting the bars shall be tied so that the bars are properly braced, the inside of their curved parts shall be in actual contact with the bars round which they are intended to fit.

**5.9 BINDING WIRE:**

Bars shall be bound together with black annealed steel wire No.16 S.W.G thick and the binding shall be done tight with proper pliers or automatic binders. The free ends of the binding wire shall be sent in walls. The rate of reinforcement should be inclusive of cost of binding wire.

**5.10 STEEL TO BE CLEAN:**

All steel reinforcement before the concrete is deposited shall be clean and free from all loose mill scale, dust and loose rust, and coatings such as paints, cement, grout etc.,

**5.11 DEPOSITING**:

No concrete shall be deposited until form work and reinforcement has been inspected and approved by the Engineer. Care shall be taken that the steel reinforcement is thoroughly surrounded by the concrete and that no voids or cavities are left. Consolidation of the concrete, either by hand or mechanical vibration, shall be to the satisfaction of the Engineer, and under no circumstance shall consolidation obtained by heavy impact on the form work.

**5.12** The top of each layer of concrete shall be laid parallel to the longitudinal axis of the work and shall not be at a slope to it.

**5.13 DEFECTIVE WORK:**

If, on the removal of the shuttering any honey combing or other defective workmanship shall be found in the face of the concrete, the Engineer will decide whether, in his opinion, the strength of the member is affected, and whether 'Patching' will be permitted in which case the defective concrete shall be cut out to the extent ordered by the Engineer, and the remaining concrete thoroughly cleaned and made good. If before or during this operation, any reinforcing bar is exposed, the cutting out shall continue right round the bar, to form a key. Where reinforcing bars are so exposed, care shall be taken to ensure that they are not damaged by the tools used for cutting out the concrete.

**5.14** If, in the opinion of the Engineer, the strength of the member is affected by the defective materials or workmanship, he may direct that the whole members shall be removed and a new member constructed by the contractor without charge. The contractor may however, elect to carry out load test at his own cost, and if the load test shows results sufficiently satisfactory to the Engineer, the member may be left in place, provided all surface defects are made good by the contractor without charge. The weight of the test load will be determined by the Engineer.

**5.15** If 'Patching' is discovered which has been carried out without the permission of the Engineer, the whole member affected will be liable for rejection, in which case the member shall be removed and a new member constructed by the contractor, all without charge.

**5.16 SCAFFOLDING:**

The rates quoted by the tenderers for all civil works shall be inclusive of scaffolding charges required if any. Materials and labour required for scaffolding shall be arranged by the contractor himself.

**5.17 CODES AND STANDARDS**

All equipment materials fabrication galvanizing and tests shall conform to the latest applicable standards, codes etc. mentioned here in or to equivalent applicable international standards approved by the engineer

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**Sl. STANDARD TITLE**

**No.**

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1. IS 8112/1989 43 grade ordinary Portland cement

2. IS 1786/1985 High strength deformed steel bars and wires for concrete reinforcement

3. IS 456/1978 Code of practice for plain and reinforced

Concrete

4. IS 383/1970 Course and fine aggregates from natural

sources for concrete

5. IS 2062/1992 Steel for general structural purposes

6. IS 432(Part-1& / Mild steel and medium tensile steel bars and

Part-2)/1982 hard drawn steel wire for concrete

reinforcement.

6.1 **FOUNDATION CONCRETE:**

Laying foundation for main and auxiliary structures, transformer plinths etc., including dewatering the pits before and during the process of laying concrete in the proportion of RCC 1:2:4 using 20mm HBG metal and CC 1:4:8 using 40mm HBG metal as per the drawings for structural foundations enclosed to the specification and curing for 14 days including cost of cement, reinforcement steel.

6.2 **PLASTERING:**

Plastering foundation plinths 12mm thick in (1:3) cement mortar and white washing (two coats) with Janatacem cement paint. All projections of plinths and masonry above ground level shall also be provided with Janata cement paint.

Sd/-

Superintending Engineer,

OMC Circle, Mahabubnagar

ANNEXURE – I

TENDER SPECIFICATION No. MWT – 22/2025-26 of SE/OMC/MAHABUBNAGAR.

**CERTIFICATE**

I/We have gone through all the Terms and Conditions of the Specification mentioned above and submit our tender herewith duly accepting all the Terms and Conditions laid down therein.

SIGNATURE OF THE CONTRACTOR

NAME:

(IN BLOCK LETTERS)

SEAL: DATE:

ENCLOSURES TO THE SCHEDULE:

1. Terms & Conditions (General & Technical) duly signed by : YES / NO

the Contractor.

1. Whether solvency certificate issued by Bank / Revenue : YES / NO

Authority or Sales Tax Clearance Certificate is enclosed.

1. In case of partnership firm, whether attested copy of : YES / NO

Partnership deed and Form “C” showing all the names of

Partners obtained from the Registrar of firm is enclosed.

1. Whether credentials of similar nature of works : YES / NO

with period contract undertaken previously are enclosed.

1. Whether latest postal address and telephone Nos. : YES / NO

furnished.

1. Details of Bid Security remitted

(PEMD Holder should enclose attested copy

of TGTRANSCO Proceedings). : YES / NO

VII) Whether the Valid “A” grade license enclosed : YES / NO

VIII ) Copy of G.S.T. If Registered Vendor or unregistered vendor

on letter firm Letter Head.

1. Copy of AADHAR & PAN. : YES / NO

1. Valid Vender Registration with TGTRANSCO/ : YES / NO

TSGENCO/DISCOMS or any other Government Department.

SIGNATURE OF THE CONTRACTOR

NAME:

(IN BLOCK LETTERS)

SEAL: DATE:

ANNEXURE – II

Undertaking to be given by the Company / Partnership Firm / Contractor along with the Tender:

I,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_representing of the Company/Partnership Firm/Contractor responding to the bid invitation by the TGTRANSCO/TSGENCO/DISCOMS wide Specification No.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hereby sincerely solemnly and state as follows:

**(Strike out which is not applicable)**

1. That myself or any of the representative of my Company / Firm do not have any relatives as defined in appended Annexure – III in the TGTRANSCO /TSGENCO/ DISCOMS.

(Or)

1. That the following officers/employees of the TGTRANSCO / DISCOM are related to me or to representatives of my Company / Firm and their status in the TGTRANSCO/TSGENCO/DISCOMS is as under:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sl. No. | Name of the Officer / employee | Designation and Place of working | TGTRANSCO /TSGENCO DISCOMS | Relationship. |
| 1 |  |  |  |  |
| 2 |  |  |  |  |
| 3 |  |  |  |  |
| 4 |  |  |  |  |
| 5 |  |  |  |  |
| 6 |  |  |  |  |

It is certified that the information furnished above is true to the best of my knowledge and belief. It is hereby undertaken that in the event of any of the above information found be false or incorrect at a later date, the TGTRANSCO /TSGENCO/DISCOMS is entitled to terminate the Contract / Agreement entered in to besides recovering damages as may be found necessary, with due notice.

Signature of the authorized Representative / Contractor.

NAME:

(IN BLOCK LETTERS)

SEAL:

DATE:

ANNEXURE – III

LIST OF RELATIVES:

1. Father 14. Daughter’s Husband
2. Mother (including Step mother 15. Daughter’s Son
3. Son (including Step Son) 16. Daughter’s Son’s Wife
4. Son’s Wife 17. Daughter’s Daughter
5. Daughter (including Step Daughter) 18. Daughter’s Daughter’s Husband
6. Father’s Father 19. Brother (including Step Brother)
7. Father’s Mother 20. Brother’s Wife
8. Mother’s Mother 21. Sister (including Step Sister)
9. Mother’s Father 22. Sister’s Husband
10. Son’s Son 23. Son’s Wife’s Father } (and their

}siblings).

1. Son’s Son’s Wife 24. Son’s Wife’s Mother }
2. Son’s Daughter 25. Daughter’s Husband’s }

Father } (and their

1. Son’s Daughter’s Husband 26. Daughter’s Husband’s } siblings). Mother.

TRANSMISSION CORPORATION OF TELANGANA LIMITED

**SCHEDULE – III - B**

SUMMARY OF PRICES

SPECIFICATION NO.: MWT 22/2025-26.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Name of the Work : Replacement of existing aged 132 kv SF6 circuit breaker of 132 kV SF6 Circuit breaker of 132 KV Bhoothpur CKT – 2 at 132/33 Kv SS Mahabubnagar.   |  |  |  | | --- | --- | --- | | Sl. No. | Item | Total Price | | 1 | Total value of schedule items (Quantities and Prices are as per the Schedule – A appended to the Specification). | **Rs.3,89,402/-**  (Inclusive of all Taxes but exclusive of Seignorage Charges & GST on seignorageCharges). | | 2 | Percentage Rate Quoted below / at par/ Above the total value vide item 1. Above | | |  | 1. In figures | % | |  | 1. In words |  | | 3 | Total value of schedule after loading the percentage rate quoted against S.No.2 above | | |  | 1. In figures | Rs. | |  | 1. In words | (Rupees  ) | |
|  |

NOTE: 1. Percentage is to be rounded off upto two decimals.

2. Amounts are to be rounded off to nearest rupee.

Sd/-

Superintending Engineer, SIGNATURE OF THE BIDDER

OMC Circle, Mahabubnagar. WITH DATE AND SEAL