**TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED**

Sub: Revision of Estimated rates for equipment/materials for turnkey tenders and changes in turnkey contract execution and purchase procedures ––Orders Issued.

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TOO(CMD) Ms. No.2 Date: 12/11/2013

1. APTRANSCO has been facing a problem of inadequate response for its turnkey tenders from the Bidders for about a year. Estimates Study Committee (ESC) was constituted by APTRANSCO for conducting a comprehensive study regarding preparation of estimates for realistic prices of materials/equipment and to recommend steps to attract more bidders for healthy competition, and to improve the overall tender process and project execution process.
2. Recommendations were made by the ESC based on inputs received from the construction wings of APTRANSCO, other utilities and the contractors of APTRANSCO.
3. The recommendations of the ESC were discussed in detail by the full Board along with functional heads on 30/10/2013. After careful examination, APTRANSCO herewith accords approval for the following procedures in respect of tender and the process of project execution and purchases:
4. **For Tenders to be floated up to 31/03/2014:** Average of rates of budgetary offers and rates for equipment & material awarded in last three turnkey contracts awarded during last six months shall be considered for estimation of 220kV and 132kV works.

Contractor’s Overhead and Profits (COP) need not be factored in considering material and equipment rates. However, Contractor’s overhead and profits (CoP) of 14%, shall be applied for the supply of line, substation structures and earth flat based on GoAP rates, for preparation of estimates.

In case of 400kV works existing practice of estimation based on latest awarded rates shall be continued.

**For Tenders to be floated after 01/04/2014:** Average equipment/material rates in last three turnkey contracts awarded during the last preceding six months shall be considered for estimation. In case less than three contracts are awarded during the said six months period, the average of the same must be considered.

Cost-data of equipment material as arrived at duly following aforesaid procedure shall be communicated twice in a year on above basis. Contractor’s overhead and profits (CoP) of 14% to be applied for the supply of line, substation structures, and earth flat on GoAP rates, for preparation of estimates.

In case of 400kV works existing practice of estimation based on latest awarded rates is to be continued.

In case of urgency tenders may be called pending Technical Sanction with prior approval of the Board.

Chief Engineer/Construction-I shall time to time communicate 220kV, 132kV and 33kV equipment and material rates for preparation of work estimates based on above procedure within one week of issue of this order. Half-yearly equipment/material rates to be communicated by 15th September and 15th April of every year based on turnkey contracts awarded in Construction I & Construction II and Lift Irrigation wings.

1. Bolts & nuts, and spring/flat washers must be shown as separate items in Schedule-A. HT steel rate also to be shown separately in the estimate.

Chief Engineer/Construction-II shall time to time include HT steel rate, in the steel rates circular.

1. Project insurance to be shown as a separate item @ 0.5% of project cost (total cost of materials + labour) under Schedule B. This can be paid as per actuals or quoted rate whichever is lower on submission of original insurance documents.

**Explanatory Note:**

Estt. cost of Equipment/material = X

Estt. cost of Labour = Y

Project Insurance = Z = (X + Y) x 0.5%

Estimated Contract Value (ECV) = X + Y + Z.

1. Hiring of car for TLC officers shall be included as an item in Schedule-B indicating charges payable per km. Necessary rate per kM may be arrived and the same shall be included in the SSR 2013 – 14 by issuing an amendment.

(1) Chief Engineer/Construction-II shall issue amendment to SSR 2013 – 14 within one month indicating rate per kilometer for hiring of car duly obtaining necessary approvals. (2) Field officers to include approximate provision for distance in kM, based on number of trips necessary for completion of projects in the work estimate.

1. All taxes applicable for the transactions between APTRANSCO and contractor shall be shown separately.

Executive Director/Finance shall ascertain from the labour department regarding applicability of labour-cess on material/equipment component of turnkey contract by 31/12/2013.

1. Contractors must be required to establish civil testing laboratory only where the value of civil works (excluding tax component) exceeds Rs. 2 Crores.
2. Measurement of the reinforced steel must be as per actuals including overlaps. Payment may be made to the extent of quantity executed after deducting 4 % excess quantity which is already provided in the data towards overlap and treating it as wastage ( 4% overlap + 1% scrap).

Chief Engineer/Civil shall issue a circular explaining the above computation with example, and the same may be included in the part of estimate of concerned civil work.

1. Four kilometres extra water lead for line works and one kilometres for SS works shall be considered while preparing estimate for civil part of works.
2. Cost of scaffolding for high ceiling building like GIS, River crossing towers and JC towers works must be considered as per rates applicable for multi-storied building.
3. Provision towards cost of soil testing (Bore logs etc.,) for design purpose shall be included in the civil part of estimate.
4. Considering the right of way problems, time & space constraint to execute the civil works, provision shall be made in the estimate for tentative quantity of Ready Mix Concrete.

Chief Engineer/Civil shall get information from National Academy of Construction regarding testing of chemicals added in Ready mix concrete and their impact on the long term strength of construction.

1. An amount of Rs 3000/MT to be added to the GoAP approved rates in order to arrive at a realistic value for AP Transco specified steel brands (TATA, SAIL, VSP and others added from time to time).
2. Pre-bid meeting to be held, and the date of the pre-bid meeting must be announced along with the date of publishing for all future tenders, henceforth.
3. APTRANSCO shall directly procure control and relay panels, substation automation systems, and telecom equipment from the manufacturers. These items shall be excluded from the 220kV and 132kV turnkey projects.

Procurement wing to initiate procurement actions for above equipment/materials and ensure timely availability of equipment by working in close coordination with the construction wings.

1. Bidders experience to be verified on annual basis and to be made available on the APTRANSCO website. Vendor registration cell to be made responsible for this.

Vendor Registration Cell to complete the process of compiling and verifying the experience of turnkey contractors by 31/03/2014. Updating of contractor experience shall be done twice a year i.e., in October and April, and the same to be made available on APTRANSCO website.

1. Price negotiations must be avoided with any bidders including L1 in line with directions of Central Vigilance Commission. Discount offers post opening of price bids must be strictly not entertained.
2. In case of inadequate response for tenders, i.e., less than three bids, bids can be opened without extension duly obtaining approval of the Board. Re-tendering shall be normally done only when no bids are received or L1 rates are higher than the expected rates.

SuitableAmendment to be issued to the Purchase Manual by Chief Engineer/Lift Irrigation.

1. Subcontracting may be permitted post-award of contract based on terms and conditions to be stipulated by the APTRANSCO. Items of works proposed for Sub-contracting and sub-contractor to be got approved by Order Placing Authority before or after placing of the contract order. In case the main contractor fails to perform, the work may be executed through the sub-contractor, but payment shall be made through main contractor.
2. Bill payment of 80% against acceptance of delivery of material/equipment, 10% after erection and balance 10% on testing and commissioning is considered.
3. Additional Performance Bank Guarantee need not be insisted in case the value of balance work to be done is less than the Performance Bank Guarantee already furnished by the contractor. However, Bank Guarantee for the total value of the works executed must be ensured before payment of final bill.
4. In case of 400kV works, two tower manufacturers can be allowed to tie-up with the turnkey contractor if each manufacturer meets 100% of the QR and are willing to furnish 5% Bank Guarantee for the value of the towers parts proposed to be supplied by each of them.
5. Joint measurement certificate must be signed immediately on completion of foundation for each location to avoid delay in recording measurements for arranging payment.
6. Copy of the admitted bill must be made available to the contractor.
7. Single completion period to be stipulated for the turnkey project. Contractor may submit bar-chart for approval during the kick-off meeting. Similarly APTRANSCO also shall furnish work chart with regard to supply of materials like transformers/panels etc., to optimize the resources and to ensure speedy completion of work.
8. Completion period to be suggested by the Superintending Engineer/TLC along with estimates based on availability of working season and other field conditions.
9. APTRANSCO must communicate bar-chart indicating % of profiles to be handed over to the contractor in the kick off meeting

Zonal Chief Engineers shall furnish bar chart to the contractors during the kick-off meeting indicating break-up of the % of the line profile that will be handed over to the contractor.

**Example:**10% of line profiles during kick off meeting, 20% within next two months, 30% within 5 months and 40% within six months.

1. Contractor must be held responsible for rectification/completion of works as on date of commissioning and for defects within the warranty period. Any other defects noticed post statutory inspection must be got rectified under O & M works.

**Note:** However all the liabilities of the contractor covered under performance guarantee period shall hold good.

1. Clearing of obstructions like LT lines, old buildings etc., may be completed before award of main works by awarding of separate contracts at zonal level in advance.
2. Zonal Chief Engineers shall finalize district-wise crop compensation rates within three months with the assistance of Additional Secretary/Revenue authorities which was already instructed vide TOO No. MS 492 dated 28/02/2011.

Zonal Chief Engineers shall finalize district-wise crop compensation rates within three months of issue of this order without fail.

1. No ceiling on the price variation payment either for decrease or increase in prices in case of civil works. In case of electrical equipment/materials price variation ceiling as per the present practice for direct procurement to be followed in turnkey contracts also.
2. Superintending Engineer/P & MM to subscribe for IEEMA/CACMAI circulars and make the same available to field officers.
3. Superintending Engineer/TLC 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/TLC or Assistant Executive Engineer/TLC, and the contractor.

Superintending Engineer/TLCs to submit copies of minutes of monthly review meeting with the contractors to headquarters from 01/12/2013 onwards.

1. Order placing authority to approve project completion time rescheduling up to six months based on Monthly field review meeting report. Approval of Technical Committee required for project rescheduling beyond six months.
2. Order placing authority is authorized to defer penalty up to 6 months delay based on contractor performance and recommendations of the Superintending Engineer/TLC.
3. Monthly field report will be the basis for considering extension of time as per the delegation of powers for extension of time stipulated in the Purchase Manual which must be followed scrupulously.
4. Agreement authority (Superintending Engineer/TLC or Superintending Engineer/400kV field) to approve up to 10 % increase in contract value due to deviation in quantities.

**Explanation:** Agreement authority to accord approval for up to 10% increase in contract value based on the justification submitted by field officers and communicate the same to the Order Placing Authority for issuing amendment to the Contract and modifying ERP lines. In case of decrease in quantities, Agreement Authority is authorised to approve full quantity.

1. Contractor may be allowed to retain the balance materials by recovering the value of materials as per the contract rates for the purpose of closing the contracts. This provision is applicable only for the materials supplied by the contractor under the contract, and not for the materials issued by APTRANSCO.
2. Awarded rate must be applicable for any increase in actual quantities of work. Tender percentage must not be applied for supplemental items of work i.e., in respect of new item rates arrived based on market rates and not for items available in SSR or contract.
3. Two-Stage inspection for 220kV and 132kV line and substation structures to be discontinued and single stage inspection to be done as in case of 400 kV structures.

This shall be applicable from the date of issue of this order.

1. Dispatch Instructions shall be issued on the spot at the manufacturer’s works by the inspecting officer after satisfactory completion of testing as per relevant procedures / standards. A copy of Dispatch Instructions along with signed acceptance and routine test certificates to be submitted to the order placing authority for generating Dispatch Instruction lines in the ERP system.
2. Order placing authority shall accord waiver of inspection for non-critical items based on exigencies and reasons to be recorded.
3. Manual recording of bill in the measurement books must be discontinued and only ERP billing must be done so as to significantly reduce billing time. Hardcopies of ERP bills to be signed by the contractor and APTRANSCO officers for processing of bills by the paying units.

1. Chief Engineer (EA, O & RE, IT) to customize ERP system to facilitate ERP billing of works. 2. Superintending Engineer/TLCs to address Chief Engineer (EA, O & RE, IT) intimating specific provisions required in the ERP system for billing of works without necessity of recording the bill in Measurement Books.

1. Replacement of existing Power Transformers with higher capacity transformers to be done by TL &SS wing instead TLC wing.

Superintending Engineers/TL & SS shall be responsible for proposing, estimating, tendering and execution of works pertaining to replacement of existing power transformers with higher capacity transformers. Chief Engineer/Transmission to be addressed for sanctions/approvals wherever required as per the existing delegation of powers.

1. Officers at Headquarters requiring field experience to undergo one-month hands-on training by working in parallel to TLC officers on projects under execution. Chief General Manager/HRD & Training may design a suitable training program.

Chief General Manager/HRD &Training shall circulate action plan to the Board identifying officers in the construction wing requiring training and schedule of training.

1. Official email to be provided to DE and higher cadre for carrying direct correspondence with field/ headquarters.

Chief Engineer (EA, O & RE, IT) shall communicate official email IDs to all officers of Divisional Engineer and above cadre within one month and to configure email system in APTRANSCO website for direct access through internet.

1. 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/TLC jointly signed by concerned Assistant Engineer/Assistant Executive Engineer (TLC) and Contractor’s authorised representative.

Director/Projects may prepare and circulate proforma.

1. Volume I & II of the bid specification to be standardised and made available on website. Chief Engineer/400kV Const. and Chief Engineer/Const.-I, Chief Engineer/Const.-II and Finance wing shall standardize the specifications within three months.
2. Quality Control (QC) wing to formulate detailed QC policies and norms manual. QC wing shall prepare the QC manual within three months and make the same available on APTRANSCO website.

**Note:** QC Manual must indicate the list of documents to be verified at manufacturer’s works, requirement of type tests, calibration requirement of test equipment, list of acceptance tests for each of the materials/equipment, routine tests, standard formats for recording test results along with permissible limits for acceptance along with references to relevant National/International/APTRANSCO standards and drawings. Timelines for completion of inspection etc., QC norms pertaining to electrical and civil works also to be covered in a separate volume.

1. Chief Engineer/Const.-I, Chief Engineer/Telecom and Chief Engineer/Civil in coordination standardize all Electrical/Telecom equipment and civil drawings respectively and make the same available on APTRANSCO website within three months.
2. IT Wing to customise ERP system to create Plug & Play user-friendly estimate preparation modules.

Chief Engineer (EA, O & RE, IT) shall prepare estimate preparation modules within three months.

1. IT wing to develop ERP based Bank Guarantee tracking system to issue alerts on validity expiry.

Chief Engineer (EA, O & RE, IT) shall prepare Bank Guarantee Tracking System within two months.

1. Exclusive team at Senior Accounts Officer/Accounts Office level shall be made responsible for tax related issues and any changes in tax structure shall be intimated to all the functional heads. Clarification regarding issue of ‘C’ form may be issued within one month.

Executive Director/Finance may suggest and communicate suitable clause regarding tax structure, and issue of C forms for incorporation in the specification.

1. Bidders must register with APTRANSCO and Bidder’s technical experience to be updated once in six months, and published on the Transco website.

Vendor Registration Cell shall evolve detailed process for vendor registration, and get the same approved by the Board. Procedure for Vendor Registration and updating of contractor experience to be made available on APTRANSCO website.

1. A Technical wing headed by the Chief Engineer with at least two Superintending Engineers and Two Divisional Engineers should be formed to advise on adoption of new technologies, innovations, and to advice on all technical matters such as approval of technical specifications, GTPs/drawings etc., with respect to construction and O & M under CMD. This wing will also be responsible to develop a construction manual and update the same from time to time based on field inputs.

Joint Managing Director/Comml. & HRD may arrange the above posts at an earliest.

1. Vendor Registration Cell shall be headed by a Divisional Engineer to be formed with two ADEs for vendor registration of all equipment/material manufacturers, and turnkey contractors. This cell will responsible for annual verification of turnkey contractor’s technical experience, and making the same available on APTRANSCO website.

Joint Managing Director/Comml. & HRD may arrange the above posts at an earliest.

1. Project Monitoring Unit headed by Superintending Engineer may be strengthened and brought under the direct control of concerned Director for independently keeping track of the project on a regular basis.

(1). Chief General Manager/HRD &Training to issue suitable orders. (2) PMU to directly keep track of the project progress by interacting with the field engineers and contractors to identify specific bottlenecks hindering project progress and submit a monthly report to the concerned Director with a copy to CMD.

1. TLC Asst. Engineers may not be assigned more than one major work package involving a line, substation and bay.
2. Construction Chief Engineers to approve specifications suitably incorporating above provisions until volumes I & II of the specifications are standardised.
3. Chief Engineer/Lift Irrigation shall issue necessary amendments to the Purchase Manual in case of any contradiction/deviations as a result of these orders.
4. Joint Managing Director/V & S shall review compliance of the measures approved by the Board to ensure all the approved measures are fully complied with.

Joint Managing Director/V & S may conduct monthly review of compliance of these orders.

1. The above indicated changes shall be applied for future tenders only unless specifically stated otherwise. Tenders already called and bids about to be opened, should go as per existing tender conditions. In case of tenders already floated and if sufficient time is available for issue of amendments, then the above changes may be incorporated.
2. The order which are inconsistent with previous orders issued by the Board, shall supersede the corresponding provisions of previous orders, and such corresponding clauses of previous orders shall be ceased to have effect.
3. **These orders are issued as per the approval of the Chairman and Managing Director vide No. 3239 dated 09/11/2013.**
4. These orders are also available on APTRANSCO website and can be accessed at the address <http://www.aptransco.gov.in>.

**BY ORDER AND IN THE NAME**

**OF**

**TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED**

 **SD/-**

 **SURESH CHANDA**

**CHAIRMAN & MANAGING DIRECTOR**

// FORWARDED BY ORDER //

DIVISIONAL ENGINEER(T)

Office of JMD(V&S)

To:

The Executive Director/Planning, RAC & Reforms, Vidyut Soudha/Hyderabad

The Chief Engineer/Construction-I/Vidyut Soudha/Hyderabad.

The Chief Engineer/Construction-II/Vidyut Soudha/Hyderabad.

The Chief Engineer/400kV construction/Vidyut Soudha/Hyderabad.

The Chief Engineer/Power Systems/Vidyut Soudha/Hyderabad.

The Chief Engineer/Lift Irrigation/Vidyut Soudha/Hyderabad.

The Chief Engineer/Civil/Vidyut Soudha/Hyderabad.

The Chief Engineer/Transmission/Vidyut Soudha/Hyderabad.

The Executive Director/Finance/Vidyut Soudha/Hyderabad.

Personal Secretary to the Chairman & Managing Director.

Personal Secretary to the Joint Managing Director/(Commercial& HRD).

PS to the Joint Managing Director/Vigilance & Security.

Personal Secretary to the Director/Finance

ADE (T) to Director/Grid and Transmission Management

Personal Secretary to Director/Projects.

The Chief Engineer/Metro/Rural Hyderabad/Warangal/Vijayawada/Kadapa/Visakhapatnam

All the Superintending Engineers/TLC/TL&SS

Central Record Section and stock file

T.O.O Section.