

TAMIL NADU WATER SUPPLY AND DRAINAGE BOARD



ABSTRACT

TWAD BOARD - TENDER PROPOSAL FOR THE CONSTRUCTION OF ALL COMPONENTS UNDER INSTALLATION AND COMMISSIONING OF UNDERGROUND SEWERAGE SYSTEM TO THANJAVUR MUNICIPALITY ON TURNKEY BASIS INCLUDING MAINTENANCE FOR A PERIOD OF FIVE YEARS - APPROVAL ACCORDED - ORDERS ISSUED

(Contract Management Wing)

B.P.Ms.No. 3

Dated:09. 01.2003

Read :

Board's Resolution no. 3.4/ dated 03.01.2003

Order :

The Government of Tamil Nadu in G.O. Ms. No. 728/ MA & WS [MC-3(2)] Department/ dated 30.12.2000, have accorded administrative approval for installation and commissioning of Underground Sewerage System to Thanjavur Municipality for an amount of Rs. 70.00 crores.

Tenders for the above work were invited by the Chief Engineer, TWAD Board, Eastern Region, Thanjavur on 12.01.2001, fixing the last date for receipt of tenders as 14.02.2001. In response to the tender call, three bidders had purchased the bid documents and offered their bids. The Head Office Tender Evaluation Committee for High Value tenders pre qualified M/s. Larsen & Toubro Ltd., Chennai and Thiru A. Sekar Madurai. However, the Board in its Proceedings Ms. No. 19/ dated 04.02.2002 had directed to call for fresh tenders for the above work based on the detailed project report approved by the NRCP, Government of India, New Delhi.

The Government of India had approved the detailed project report for Thanjavur Underground Sewerage System for a total cost of Rs. 5655.71 lakhs. The detailed project report, design, specifications, bid documents etc were prepared by M/s. Consulting Engineering Services (India) Ltd., Chennai. The detailed estimates were technically sanctioned by the Chief Engineer, TWAD Board, Eastern Region, Thanjavur for an amount of Rs. 5255.05 lakhs and registered as CE ER/ TNT/ 11/ 2002-2003 dated 09.07.2002.

Based on the Detailed Project Report approved by the Government of India, tenders were invited by the Chief Engineer, TWAD Board, Eastern Region, Thanjavur on turnkey basis adopting two cover system on 08.05.2002, fixing the last date for receipt of tenders as 26.06.2002, subsequently extended upto 19.07.2002.

In response to the tender call, ten firms/ contractors had purchased the bid documents, out of which tenders were received from the following three firms/contractor only.

1. M/s. Subaya Constructions Co. Ltd., Chennai
2. Thiru A. Sekhar, Madurai
3. M/s. Larsen & Toubro Ltd., Chennai

The technical bids of the above three bidders were opened by the Joint Chief Engineer, TWAD Board, Eastern Region, Thanjavur on 19.07.2002, as the Chief Engineer was on camp to Chennai in connection with a meeting. As per the directions contained in G.O. Ms. No. 1(D)/ 501/ MA & WS (MA-3) Department/ dated 26.10.99, the technical bids received for the above work were placed before the Technical Standing Committee at its meeting held on 07.08.2002 for technical evaluation and recommendations. The Technical Standing Committee, after detailed discussions recommended as below:

- i) Thiru A. Sekhar, Madurai

Based on the documents produced, the Committee recommended the pre qualification of this bidder
- ii) M/s Subaya Construction Co. Ltd., Chennai

The bidder may be requested to furnish the details of stoneware pipes laid at a depth of 5m and above, with proper documentary evidence.
- iii) M/s Larsen & Toubro Ltd., Chennai
 - a) The bidder may be requested to furnish the experience certificates attested by Notary Public
 - b) The experience certificate furnished for sewage treatment plant indicates only supply, design and erection of equipments for revamping sewage treatment plant. The bidder may be asked to furnish specific experience record for having constructed and commissioned a sewage treatment plant.

- c) The qualification criteria prescribed for CI pipes is as under:
Should have laid, jointed, tested CI pipes
200mm dia or above –1 km

The experience certificate furnished by the bidder towards this criteria is for a total length of 743 m only as against the requirement of 1 km. The bidder may be requested to furnish their experience for the required length of CI pipes of size 200mm and above, executed by them with proper documentary evidence.

The Technical Standing Committee desired that the above details may be obtained from the two bidders for further recommendations.

The details required by the Technical Standing Committee were collected by the Chief Engineer, TWAD Board, Eastern Region, Thanjavur and placed before the Technical Standing Committee at its meeting held on 16.08.2002. The Technical Standing Committee, after considering the details placed before the Committee by the Chief Engineer, TWAD Board, Eastern Region, Thanjavur, decided to recommend the pre qualification of all the three bidders as under :

1. M/s Subaya Constructions Co. Ltd., Chennai
2. Thiru A.Sekhar, Madurai
3. M/s. Larsen & Toubro Ltd., Chennai

As per the directions contained in Board's Proceedings Ms. No. 100 dated 03.05.2000 and 227 dated 14.12.2001, the technical bids alongwith the recommendations of the Technical Standing Committee were placed before the Head Office Tender Evaluation Committee constituted for High value tenders at its meeting held on 16.08.2002 for taking a decision on the pre qualification of the bidders for this work. The Head Office Tender Evaluation Committee for high value tenders, after detailed discussions, accepted the recommendations of the Technical Standing Committee and decided to pre qualify the following three bidders for the above work.

1. M/s Subaya Constructions Co. Ltd., Chennai
2. Thiru A.Sekhar, Madurai
3. M/s. Larsen & Toubro Ltd., Chennai

The price bids of the pre qualified bidders were opened by the Chief Engineer, TWAD Board, Eastern Region, Thanjavur on 22.08.2002. The Chief Engineer, TWAD Board, Eastern Region, Thanjavur had compared separately the rates received for (i) works as per BOQ and (ii) for Operation and Maintenance.

According to the comparison made by the Chief Engineer, the tender offered by M/s Subaya Constructions Co. Ltd., Chennai at (-) 3.57 % less than the departmental value of Rs. 47,98,78,288/- for the works excluding operation and maintenance was the lowest. For operation and maintenance, the rate quoted by M/s. Subaya Constructions co. Ltd., Chennai was not the lowest. The Chief Engineer, TWAD Board, Eastern Region, Thanjavur, has considered the value of the tenders offered by the firms/ contractors for the works covered in the BoQ as the basis and has decided the tender offered by M/s. Subaya Constructions Co. Ltd., Chennai as the lowest and has conducted negotiations with this firm. In response to this, the firm M/s. Subaya Constructions Co. Ltd., Chennai vide their letter dated 22.08.2002, had agreed to reduce the tender percentage from (-) 3.57 % to (-) 4.00 % and also agreed to reduce the operation and maintenance charges for the above scheme from Rs. 1.00 crore per year to Rs. 26,00,000/- per year.

Taking this into consideration, the Chief Engineer, TWAD Board, Eastern Region, Thanjavur had presented the position of the tender offered by M/s. Subaya Constructions Co. Ltd., Chennai as under :

Departmental value as per BOQ	Rs. 47,98,78,288/-
Tender percentage offered	(-) 4.00 %
Value of tender	Rs. 46,06,83,156/-
Rate for maintenance of the scheme for five years (Rs.26,00,000/- x 5)	Rs. 1,30,00,000/-

The Chief Engineer, TWAD Board, Eastern Region, Thanjavur has recommended the tender offered by M/s. Subaya Constructions Co. Ltd., Chennai for consideration stating that the tender percentage offered after negotiation for works as per BOQ is reasonable and the rate for operation and maintenance after negotiation is the lowest.

In the BOQ, the total value of works excluding operation and maintenance for five years has been furnished as Rs. 47,98,78,288/- and the bidders have to quote the excess/ less percentage on the above departmental value. As per the note attached to the BOQ, "the contractor should quote separately the rate per year towards operation and maintenance of the entire project after commissioning for a period of 60 months (five years). The cover containing the rate for operation and maintenance should be enclosed in a separate cover, sealed duly superscribed as 'Rate for operation and maintenance' and the sealed cover should be enclosed to the price bid cover (i.e. Bill of Quantities)".

The works covered as per clause 1.2 of the bid conditions set out in the bid document, is "Installation and commissioning of Underground Sewerage System for Thanjavur Municipality – comprising the components of sewer lines, pumping stations, pumping mains with CI/ PSC pipes and sewage treatment plant inclusive of civil, mechanical and electrical and all other allied works on turnkey basis including maintenance for a period of five years". Since the works covered are installation,

operation and maintenance as a whole, the comparison of the rates offered by the bidders should be considered as a whole for installation of the scheme and operation and maintenance.

Considering the rates offered by the bidders for installation, operation and maintenance as a whole, the tender offered by Thiru A. Sekhar, Madurai for a value of Rs. 50,60,39,262/- happened to be the lowest. Based on the observation that the tender should be considered as a whole for installation, operation and maintenance, negotiations were held at head office with the lowest bidder Thiru A. Sekhar, Madurai. In response to this, the lowest tenderer, vide his letter dated 12.11.2002, has offered the following reductions in the rates quoted by him :

Quoted rate	Reduced rate after negotiations
i) For items covered in the bill of quantity (-) 0.80 %	(-) 4.10 %
ii) For operations and maintenance Rs. 3,00,00,000/- for five years	Rs. 25 lakhs per year

The bidder had also agreed to maintain the scheme free of cost for the first one year from date of commissioning of the scheme. The bidder has stated that for the remaining four years, the rate of Rs. 25.00 lakhs per year should be paid for and has requested for monthly payment towards maintenance. The bidder has agreed to furnish indemnity bond for performance guarantee of the scheme for the five years.

Taking into consideration the reductions offered by the bidder during negotiations, the position of the lowest tender offered by Thiru A. Sekhar, Madurai stands as under :

Departmental value as per BOQ (2001-2002)	Rs. 47,98,78,288/-
Operation & Maintenance cost as per sanctioned estimate for four years (Rs.109.70 lakhs per year)	Rs. 4,38,80,000/-
Departmental value put to tender (installation, operation & maintenance)	Rs. 52,37,58,288/-
Less percentage offered by Thiru A. Sekhar, Madurai on BoQ value after negotiation at Head Office	(-) 4.10 %
Value of tender offered by Thiru A. Sekhar, Madurai for installation alone	Rs. 46,02,03,278/-

Operation & Maintenance cost offered by the tenderer after negotiation at Head Office (Rs. 25.00 lakhs per year for 2nd year to 5th year) Rs. 1,00,00,000/-

Total tender value offered by Thiru A.Sekar, Madurai after negotiation at head Office (installation, operation and maintenance) Rs. 47,02,03,278/-

The tender proposal was placed before the Tender Committee at its meeting held on 22.11.2002. The Tender Committee, after detailed discussions, resolved to defer the tender proposal with the following observations :

The parameters for treated sewage to be maintained during operation and maintenance period has to be mentioned

The staff to be employed at various locations for the operation and maintenance period should be mentioned, which the bidders should agree to employ. A condition should be drawn to the effect that in the case of understaffing by the contractor during the operation and maintenance period, recoveries shall be effected commensurate with the staffing from the payments due to the contractor.

The probable electrical consumption charges per month should be worked out and the bidder should be informed of the maximum ceiling limit allowable by the department. In case of crossing over the ceiling limit, it will be the responsibility of the contractor to bear the additional power charges. Similarly, in case of the actual consumption of electricity being less, payment will be restricted to the actual electricity charges.

The Tender inviting authority may be directed to work out the above in consultation with the consultants appointed for the above work. The conditions so drawn may be communicated to the bidders who have participated in the tender and their concurrence obtained.

The rate quoted for annual maintenance for five years should be discounted to the present price level and compared duly adding with the installation cost for arriving at the lowest tender received for the above work.

The Tender Committee directed that the proposal may be placed before the Tender Committee again for consideration.

The Tender Committee, also resolved that the matter may be taken up with TNUDF for serving a show cause to the consultants for having prepared a defective bid document with so much deficiencies.

As directed by the Tender Committee, the Chief Engineer, TWAD Board, Eastern Region, Thanjavur, in consultation with the consultant appointed for this

project, namely M/s. Consulting Engineering Services (India) Ltd., Chennai, has finalised the specifications for operation and maintenance of the project. The conditions were communicated to the tenderers whose price bids were opened with instructions to return the specifications for operation and maintenance to his office before 12.12.2002 duly signed by the authorised signatory accepting the conditions.

In response to this, among the three bidders, M/s Subaya Constructions Co., Ltd., Chennai and Thiru A. Sekhar, Madurai had returned the specifications for O & M duly signed by them. The third bidder, M/s. Larsen & Toubro Ltd., Chennai have not returned the specification for O & M even after reminding through telegram by the Chief Engineer. The Chief Engineer has adopted a discount factor, with 12.75 % as the interest rate per annum, based on the communication (Lr.no. F. HOTC/ AE 9/ P&D/ 2001/ dated 07.06.2002) received from head office stipulating the interest rate for arriving at the economical size of pumping main in design and estimates. The Chief Engineer had also stated the following :

The specifications for O & M contains the details of staff to be employed and the penalty for non employment of staff.

The electrical consumption charges per month could not be decided at this stage. Only after completion of the scheme satisfactorily and after the maintenance is taken up, the hours of running of pumpsets of various locations could be ascertained. Based on the hours of pumping only, the electrical consumption charges could be worked out. However, this will be worked out based on the efficiency of the pumpsets at various locations, hours of pumping etc. after taking up the maintenance and intimated to the contractors. Suitable conditions in the specifications for O & M have been specified to the above effect to safeguard the interest of the Board.

The Chief Engineer, TWAD Board, Eastern Region, Thanjavur had finalised the lowest tenderer based on the cost of installation alone and gone on to negotiate with M/s. Subaya Constructions Co. Ltd., Chennai. Eventhough the third contractor, M/s. Larsen & Toubro Ltd., Chennai had not responded to the reminders from the Chief Engineer earlier, the firm in their letter dated 23.12.2002 addressed to the Chief Engineer, TWAD Board, Eastern Region, Thanjavur and copy marked to TWAD Board Head Office, has stated that they agree to all terms and conditions stipulated in the operation & maintenance schedule. The firm has also stated that the revised price for O&M shall be Rs.1,26,00,000/- per year.

However, since the tender has been invited for installation, operation and maintenance as a whole and on this analogy, negotiation was held with Thiru A. Sekhar, Madurai, who had offered the lowest rate considering the installation, operation and maintenance as a whole.

Eventhough, the Chief Engineer has adopted an interest rate of 12.75 % for calculating the discount on O&M, which is based on the communication from head office, it is felt that the application of percentage interest is not proper as the communication related to calculating the economical size of pumping main in design

calculations. Instead, it would be proper to apply an interest rate of 10.50 % at which loans are sanctioned by HUDCO for TWAD schemes.

The finance wing at head office had made the following observations :

The evaluation criteria do not stipulate the discounting of O&M charges as required in Rule 15 (1) and 29(2)(e) of Tamilnadu Transparency of Tender Rules which require that

Rule 15(1)

The tender documents shall clearly indicate the criteria in addition to price which are to be adopted for evaluating the tenders and how such criteria will be quantified and evaluated

Rule 29(2)(e)

In the case of purchase of equipment, the operation and maintenance and spare part costs for appropriate periods as may be specified in bid documents may be quantified, where practicable and considered.

Further, the lending rate of 10.50 % has been adopted in arriving at the discounted rate. The deposit interest rate of 6.75 % may be adopted to have a realistic position. Moreover, as the rates are frequently fluctuating, the correct rate at the time of completion of work cannot be ascertained at this stage.

With the above details, the tender proposal was placed again before the Tender Committee at its meeting held on 31.12.2002. The Tender Committee, after detailed discussions, decided that the comparison of the rates received in the tender by the Chief Engineer is incorrect and the correct comparison of the rates received for the tender should be inclusive of installation, operation and maintenance as done at head office, as the tender has been invited for installation, operation and maintenance as a whole.

The Tender Committee at its last meeting, directed that the rate quoted for annual maintenance for five years should be discounted to the present price level and compared duly adding with the installation cost for arriving at the lowest tender received for the above work. However, taking note of the observations of the finance wing that the bid conditions do not contain anything to the effect that the discounted value of O&M will be considered for comparison, the Tender Committee decided to arrive at the lowest tender by considering the total cost for installation, operation and maintenance as offered in the price bid.

Based on the above, the Tender Committee resolved to recommend to the Board, the lowest tender offered by M/s. A. Sekhar, Madurai for a negotiated value of Rs. 47,02,03,278/- (installation and O&M for five years including first year free maintenance) for the above work.

The Tender Committee observed further that

The electrical consumption should be worked out for the maximum point for the full designed capacity of the scheme and incorporated in the agreement at the time of concluding the agreement with the successful bidder.

At the beginning of every year of operation and maintenance, the probable electrical consumption should be worked out taking into account the new connections executed upto the beginning of the year in currency and intimated to the contractor as the ceiling limit for payment of electrical consumption charges by the department for that particular year.

In future, wherever the discount factor is to be applied for arriving at (net present value) NPV, the lending interest rate of financial institutions should be adopted and not the deposit interest rate. The O&M cost should be discounted by treating the year of commencement of O&M as the first year and added to the installation cost offered by the tenderer in the price bid for purpose of comparison.

Even after the O&M period payments are discounted in line with the principles discussed above, the value of the tender at Rs. 49,84,97,262/- (after applying discount) offered by Thiru A. Sekhar, Madurai is the lowest compared to the value of other tenders.

The matter was placed before the Board at its meeting held on 03.01.2003. The Board, after careful consideration, resolved in its resolution no. 3.4 dated 03.01.2003, to accept the recommendation of the Tender Committee and to approve the lowest tender offered by M/s. A. Sekhar, Madurai for a negotiated value of Rs. 47,02,03,278/- (installation and O&M for five years including first year free maintenance) for the above work, with the following observations.

The electrical consumption should be worked out for the maximum point for the full designed capacity of the scheme and incorporated in the agreement at the time of concluding the agreement with the successful bidder.

At the beginning of every year of operation and maintenance, the probable electrical consumption should be worked out taking into account the new connections executed upto the beginning of the year in currency and intimated to the contractor as the ceiling limit for payment of electrical consumption charges by the department for that particular year.

In future, wherever the discount factor is to be applied for arriving at (net present value) NPV, the lending interest rate of financial institutions should be adopted and not the deposit interest rate. The O&M cost should be discounted by treating the year of commencement of O&M as the first year and added to the installation cost offered by the tenderer in the price bid for purpose of comparison.

The Board noted that even after the O&M period payments are discounted in line with the principles discussed above, the value of the tender offered by Thiru A.Sekar, Madurai is the lowest compared to the value of other tenders.

Accordingly, the Board approves the lowest tender offered by M/s. A. Sekhar, Madurai for a negotiated value of Rs. 47,02,03,278/- (installation and O&M for five years including first year free maintenance) for the above work. The Board directs that the electrical consumption should be worked out for the maximum point for the full designed capacity of the scheme and incorporated in the agreement at the time of concluding the agreement with the successful bidder. The Board further directs that at the beginning of every year of operation and maintenance, the probable electrical consumption should be worked out taking into account the new connections executed upto the beginning of the year in currency and intimated to the contractor as the ceiling limit for payment of electrical consumption charges by the department for that particular year. The Board also directs that in future, wherever the discount factor is to be applied for arriving at (net present value) NPV, the lending interest rate of financial institutions should be adopted and not the deposit interest rate. The O&M cost should be discounted by treating the year of commencement of O&M as the first year and added to the installation cost offered by the tenderer in the price bid for purpose of comparison.

/ By order of the Board /

**N.VASUDEVAN,
MANAGING DIRECTOR,
TWAD BOARD, CHENNAI-5**

To

The Chief Engineer, TWAD Board, Eastern Region, Thanjavur
Copy to the Suprintending Engineer, TWAD Board, Thanjavur Circle, Thanjavur.
Copy to the Finance Director, TWAD Board, Chepauk, Chennai – 600 005
Copy to the Engineering Director, TWAD Board, Chepauk, Chennai – 600 005
Copy to the Chief Audit Officer/ Chief Accounts Officer, TWAD Board, Chepauk, Chennai – 600 005
Copy to the Joint Chief Engineer (C, O&M), TWAD Board, Chepauk, Chennai – 5
Copy to the Joint Chief Engineer (P&D), TWAD Board, Chepauk, Chennai - 5
Copy to the RAO, TWAD Board, Chepauk, Chennai – 600 005
Copy to the Board Cell/ Spare

/Forwardcd/by order/

DV 10-1-03

**Joint Chief Engineer (C.O&M)
TWAD Board, Chennai-5**

MD
10/1/03