

# **Bharat Heavy Electricals Limited**

**Boiler Auxiliaries Plant**

**Ranipet – 632 406 . India**

**Civil Projects & Services Department**

## **TENDER DOCUMENT (QUALIFICATION BID)**

**Name of work** : Design,construction, supply, erection and commissioning of swimming pool in township, Ranipet – 6 Vellore District , Tamilnadu.

**Tender Notice No.** : BAP:CF:03/2011-12 Dated **06.04.2011**

**Period of Contract** : **6 Months**

**Issued to** :



BHARAT HEAVY ELECTRICALS LIMITED  
(A Government of India Undertaking )  
Unit : BOILER AUXILIARIES PLANT  
RANIPET - 632 406.

**CIVIL PROJECTS & SERVICES DEPARTMENT**

To

The Tenderer

Dear Sirs,

Sub: **Design, construction, supply, erection and commissioning of swimming pool in township, Ranipet – 6 Vellore District , Tamilnadu.**

Ref: 1. Tender Notice No. BAP:CF:03/2011-12 dated 06.04.2011  
2. Tender Schedule No.

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Please find enclosed / attached non-transferable tender document containing Preamble, Specifications, General Conditions of Contract, Pro forma and Work & safety procedure, Instruction to Tenderers, Bill of Quantities to offer your most competitive rates for all the items.

- 1) **EMD shall be in the form of DD.** Tenderers who had already remitted one time EMD should furnish the details of cash receipt No. \_\_\_\_\_ dt. \_\_\_\_\_, with a covering letter. Tender without EMD / without reference to one time EMD will be summarily rejected. All Demand Draft shall be drawn in favour of **BHEL, Ranipet** payable at **Ranipet**. In case of tender documents downloaded from website, tender shall accompany the tender cost of Rs. 750/- in the form of demand draft (separate) in addition to the EMD in the form of Demand Draft.
- 2) Document has to be signed by the tenderer in all the pages.
- 3) Price bid has to be duly filled in and signed by the tenderer in all the pages. **The tenderer has to quote most competitive rates for all the items in the Bill of Quantities.**

The completed bid along with requisite EMD of **Rs.1,50,000/-** for the work in the form of Demand Draft in favour of BHEL, Ranipet shall reach the office of the undersigned on or before 10.11.2011 **at 15:00 hrs.** EMD in any other form will not be accepted. The tender will be opened on the **same day at 15:00 hrs.** In case of opening day falls on holiday or happened to be declared as a holiday, the receipt and opening of the tender shall automatically fall on the same timing of the next working day. You / your authorized representative may participate in the tender opening.

Clarification if any, can be obtained contacting following phone No. 04172 – 284995 / 284087 Tele-Fax No. : 04172 – 242026, e-mail: [vdinakar@bhelrpt.co.in](mailto:vdinakar@bhelrpt.co.in), [vraj@bhelrpt.co.in](mailto:vraj@bhelrpt.co.in), .

Thanking you,

Yours faithfully  
For and on behalf of  
BHARAT HEAVY ELECTRICALS LIMITED,

MANAGER / CIVIL PROJECTS & SERVICES

## NOTICE INVITING TENDERS

1. Tender Notice Number : BAP:CF:03/2011-12 Dt. 06.04.2011
2. Name of work and : Design, Construction, supply, erection and commissioning of swimming pool in township.
3. Completion Time : 6 months.
4. Estimated Cost : Rs. 54.30 Lakhs
5. Document cost : Rs. 750/- (Non-refundable) + 100.00 for postal charges.
6. Earnest Money Deposit or : Rs. 1,50,000/- (shall be in the form of DD Pay Order only)
7. Last Date & Time for receipt of Completed Tender. : Before 3:00 P.M. on 10.11.2011.
8. Date & Time of tender Opening:
  - Technical bid : At 3:00 P.M. on 10.11.2011.
9. Place of submission of Tender : Office of Civil Projects & Services, BHEL, Ranipet, Vellore Dist. Tamil Nadu. Pin 632 406.

This tender document contains **217** pages including the following.

**Part I :-** Technical Bid from Page No.1 to **202** including General conditions of Contract, Special conditions of contract, drawings, Annexure A to G, Schedule A to D, etc

**Part II :-** Commercial Bid from Page No.1 to **34** of Bill of Quantities.

**Tender should be submitted in a sealed cover super scribing the name of work, Tender Notice number , Due date of Opening.**

Tenders without **EMD shall be summarily rejected.**

Note: **The tenderer shall return the duly filled in tender document after affixing signature on all the pages of the Tender Documents.**

Issued to :

**BHARAT HEAVY ELECTRICALS LIMITED  
RANIPET – 632 406**

**CIVIL PROJECTS & SERVICES DEPARTMENT**

**PREAMBLE**

01. The scope of work includes **Design, construction, supply, erection and commissioning of swimming pool in BHEL township, Ranipet – 6 Vellore District , Tamilnadu.**
02. Time is the essence of the contract. Being a time bound project with capital expenditure, the contractor should make all efforts to complete the work in time
03. The scope includes cost of cement, reinforcement steel , structural steel , piping systems, Cast Iron Specials and accessories etc., .
04. However, cement, reinforcement steel and structural steel will be issued by BHEL at BHEL stores and the cost of the same will be recovered from the contractor's running bills for quantity consumed at the recovery rate mentioned below.
- |                     |   |               |
|---------------------|---|---------------|
| Cement              | - | Rs 6325 / MT  |
| Reinforcement Steel | - | Rs 41975 / MT |
| Structural Steel    | - | Rs 46500 / MT |
05. The tenderers are advised to visit the plant area near Ranipet , Vellore (Dt.) and get themselves acquainted with the site conditions before submitting the offer.
06. **The following eligibility criteria shall be complied to fulfill the Qualification Bid**
- a. The tenderer should have EPF, PAN, proof of having submitted IT return for the last three years, Profit & Loss account and balance sheet certified by the auditor.
  - b. Average annual financial turnover in Swimming pool construction in the last three years should be at least 30% of the value of work as on 31.03.2011 (Pl. furnish the provisional balance sheet for the year 2010-11 if not audited).
  - c. During last seven years should have successfully completed either
    - i. Three similar works each not less than 40% value of respective work (or)
    - ii. Two similar works each not less than 50% value of respective work (or)
    - iii. One similar work not less than 80% value of respective work.
- Note 1: Similar works means Design, Construction, supply erection & commissioning of swimming pool.**
- d. Should have successfully constructed, commissioned and maintained a swimming pool for one year in the last seven years.
- Note 2:** The tenderers to note that possession of PF code is not a pre-condition for participation in the tender. However, the successful tenderer should ensure to get the PF code No. and the PF amount deducted from their employees are to be deposited in this PF code along with their contribution.
07. The works executed in the own name of the tenderer only will be considered for eligibility criteria. The nominated committee may also visit the works executed by the contractor to ascertain the nature of work before qualifying.

08. BHEL reserves its right to reject the tender on account of unsatisfactory past performance by the present tenderer in another project / sister unit awarded under different enquiry.
09. Dissimilar / irrelevant works will not be considered for eligibility criteria.
10. Documentary evidences (Xerox copies - attested) for turnover, works experience, P.F, & Sales Tax registration etc., all as indicated & required in the tender document should be furnished without which it will not be taken into account.
11. The value of turnover and the value of similar works mentioned above includes cost of cement, reinforcement steel, tile work, Illuminations, filters and other items covered in the scope of work.
12. Quoted rate shall be firm throughout the contract period and no cost escalation is allowed on any account.
13. The lump sum rate offered is for finished item of works and shall provide for the complete cost towards fuel, tools, tackles, plant & machinery, temporary works, labour, materials, levies, taxes, transport, lay-out, repairs, rectifications, maintenance till handing over, supervision, labour colonies, establishment, services, roads, revenue expenses, overheads, profits & all other incidentals etc., complete. However if the service tax is applicable for this contract work and free issue materials, the same will be extra and will be reimbursed on production of valid document proof for having paid service tax by the contractor.
14. Some changes are likely in the layout, design and specifications of the work. The rates quoted shall be deemed to be inclusive of all such contingencies.
15. The contractor should submit the mix design for RCC for different mix of concrete for different grade of cement including admixture of approved make at his cost through reputed institution.
16. Usually, working hours are limited to day time only. In emergency cases to carryout works during nights, it may be done so with the specific prior permission of BHEL. In such case, it is to be carried out in the presence of BHEL officials or their authorized persons.
17. The work shall be carried out as per the approved drawings, Civil Engineering Department Work & Safety procedure, AWS / BIS specifications, standard code of practice and as per the instructions of Engineer-in-charge. The brief description of items of work is given in the bill of quantities provided in the Price Bid. Tenderer has to quote rates both in figures and in words for all the items given in the Bill of Quantities provided in the Price Bid.
18. The contractor has to furnish the security deposit, as per Clause 13 of Tender Notice, attached in the Price Bid if the work is awarded. Also it is to be noted that after award of work the contractor has to furnish 50 % of security deposit before the commencement of work.
19. The contractor should bring the construction earth moving machineries like Poclain, JCB etc., as and when required for the work without any delay. Also required number of the following tools & Plants / instruments shall be made available always at site for the works.
  - a. Full load mixture machine
  - b. Petrol / Kerosene driven vibrator/ mechanical vibrator
  - c. Cube moulds
  - d. Inter carting vehicle (tractor, hand trolley etc)
  - e. Mobile / Hydraulic crane
  - f. Welding machine etc.
  - g. Steel shuttering
  - h. Pipe scaffolding
  - i. Slip form Shuttering & Allied Material

20. The contractor has to arrange sufficient number of lorries to collect & transport the surplus earth, construction debris generated, etc. at site. Otherwise BHEL would clear the debris at the contractor's risk and cost.
21. Since the responsibility for the quality, workmanship and accuracy of any work being carried out under this contract lies with the contractor, the contractor should ensure that no work is done without the presence of contractor's representative at the work spot. The contract should arrange for surveying construction site at his own cost.
22. Statement of completed works with detailed measurements along with material reconciliation statements shall be submitted by the contractor in the last week of every month for processing bill.
23. The decision of Engineer-in-charge shall be final and binding on the contractor regarding clarification of items in this tender schedule.
24. The works contract to be entered into with the successful tenderer will be governed by the BHEL Revised General Conditions of Contract in force.
25. The contractor shall strictly adhere to various labour laws in force.
26. The contractor has to submit the list of machineries to be deployed exclusively for this work, organization chart of their set up for the works and any change thereafter in the organization set up shall have the prior approval of BHEL.
27. The contractor should submit the programme for the completion of work (bar chart with different activity) and the list of machineries and site personnel to be deployed for the work along with tender.
28. The contractor should establish his own site office, for which vacant land will be allotted on specific request for which the rent will not be collected. No land will be provided towards labour colony.
29. The contractor should establish his own site office, fabrication yard, handling facility, storage facility to stock about 100 MT of cement etc., for which vacant land will be allotted on specific request for which the rent will not be collected.
30. The contractor is required to carry out construction activities as directed by the department officials. It is required to engage certain minimum strength of staff for effective supervision of works as indicated below:
 

Civil Engineer (Graduate in Civil Engineering)	-	1 No.
Electrical Engineer (Diploma holder)	-	1 No.
31. In addition to the above, Quantity surveyors have to be engaged to prepare measurements and submit the bills.
32. Adequate number of Quality Engineer and qualified Safety Engineer should be deployed at site.
33. **To safeguard the persons working at underground etc., sufficient number of Industrial Safety PPE shall be provided at tenderer's cost in appropriate level and locations. The working hand including Supervisors, Engineers should wear the personal protective items and safety measures such as helmets, safety belts, shoes, etc., before entering into working place.**
34. The tenderer has to deploy adequate labour of required categories such as Unskilled, Skilled, Mason, Carpenter, Plumber, Welder, Fitter, Mistry, Technically experienced, etc. so as to execute the works simultaneously in all areas of work. The Technical persons with experience shall have to produce valid certificate for verification.
35. The contractor shall follow norms of BHEL security system for movement of men & materials within the complex.

36. Exclusive Stores personnel should be engaged who would co ordinate with department official for clearance and collection of BHEL supplied materials required for works.
37. Separate non-technical persons should be engaged for arranging daily gate passes for labours and vehicles entry in all the gates of Factory Complex.
38. The tenderer shall carry out health performance test at his cost for all the workmen engaged in the work through a registered medical practitioner and produce certificate on demand.
39. It shall be the responsibility of the contractor to see that the workmen do not utilize the departmental canteen facilities. Contractor has to make his own arrangements to provide refreshment for the workmen.
40. All the works shall be executed as per the standard specifications as provided in TNBP / BIS.
41. All the materials to be used in the work and the nature of work shall conform to the respective TNBP & BIS and National Building Organization, Standard Specifications forming part of "ALL INDIA STANDARD SCHEDULE OF RATES" specifications and shall be got approved by the Engineer-in-charge before actual incorporation in the work.
42. The contractor should maintain proper accounts for cement, reinforcement steel and structural steel sections and other materials if any supplied by this department and should be available at the site of work for verification and check by the Officials of this Organization at any time.
43. All materials brought by the Contractor for incorporation in the work shall be got inspected and approved by the Engineer-in-charge before they are incorporated in the work. All the structural works including fabrication, erection etc., are subjected to inspection and clearance by Third Party Agency fixed by BHEL.
44. The contractor should use only the materials of brand and quality as approved by BHEL.
45. All materials and consumables brought by the contractor should have manufacturer's certificate.
46. All tools and plants including jack hammer with silencer & bits, rock drilling machine, etc., required for all the works covered under this contract will have to be brought by the contractor.
47. All safety measures are to be followed during execution of work, particularly during blasting and only licensed blaster should be engaged for this purpose. Sufficient care shall be taken by the contractor during excavation to avoid damages to the buried pipe lines, cables and other infrastructure like railway lines if any etc. Controlled blasting including muffling can be carried out with prior permission from safety department.
48. Contractor's materials and tools & plants shall have to be brought inside the plant area with proper invoice / voucher and make necessary entry in the security gate. They should maintain proper record for tools and plants, materials, etc., brought inside the factory complex.
49. The contractor should extend full co-operation with the third party agencies engaged, if any by BHEL to adhere the Quality Control Procedures ensuring quality.
50. The contractor should extend full co-operation to the other contractors who may be doing other works in the same areas to enable them to execute their portions of work without any delay or difficulty.
51. With regard to specifications not covered by the General and Special Conditions of Contract, those contained in the Tamil Nadu Building Practice Standard Specifications or other specifications approved by Bharat Heavy Electricals Limited, shall apply.
52. Water will be supplied at one point on chargeable basis @ 1% of the contract value, Power will be provided at one terminal point on commercial tariff plus applicable taxes, the

contractor has to make their own arrangement for tapping the same with necessary tools & tackles and compressed air will be provided free of charges from the nearest tapping point subject to availability. The contractor should make necessary arrangement for tapping the same. In case BHEL is not able to provide the above facilities, contractor has to make his own arrangement for completion of the work at their own cost

53. The contractor should be in a position to make his own arrangement for compressed air without any extra claim for the uninterrupted operation of jack hammer with silencer
54. Purchase preference policy if applicable will be extended to CPSE bidders subject to other terms & conditions as provided in the office memorandum issued by DPE. The tenderer has to furnish copy of Government circular for claiming purchase preference.
55. Tenderers are requested to furnish the duly filled in E format attached as separate sheet along with a cancelled cheque leaf to accept Electronic fund transfer / R T G S transfer for any payment from BHEL, Ranipet.
56. The main work order may further be split in too few sub work orders. The process of billing, material tallying and submission of completion reports will be according to the individual sub work orders.
57. Bank Guarantee format can be obtained after award of work in case of successful tenderer.
58. No advance / mobilization advance will be given.
59. LD / Penalty clause is applicable as per General Conditions of Contract in force.
60. BHEL reserves its right to accept / reject any or all the tenders without assigning any reasons.
61. Also BHEL reserves its right to finalize the contract through reverse auction for which only qualified tenderers will be provided with necessary documents containing reverse auction rules, terms and conditions for this purpose.
62. The quoted amount as provided in this tender will be in full and final for functions to be performed by the contractor and no claim whatsoever shall be made against BHEL in respect of any part relating to the plans, drawings and other documents submitted by the contractor. The drawings, design, plan, related details prepared and acquired by the Contractor for the work entrusted to him under this agreement will become the property of BHEL. The drawings, design, plan, related details cannot be issued to any other person, firm or authority or used by the Contractor for any other project without prior permission of BHEL.
63. The contractor shall supply required drawings (Minimum 3 sets) to the Department, free of cost, till the completion of the work.
64. The contractor shall not make any deviations, alterations or omissions from the approved drawings, without prior consent of the Department.
65. All the approved drawings shall be the property of BHEL. The same shall be submitted to the department immediately after getting them approved.
66. BHEL may review the work carried out by the contractor at planning, detailed engineering or at any pre-constructional stage to get satisfied with the standards and procedures adopted by the contractor to make available the concerned documents to BHEL on demand.
67. It is the responsibility of the contractor to plan and design the Swimming pool based on standard engineering practice. The contractor shall stand guarantee for the performance of the system designed by them for a minimum of 7 years. **A guarantee bond on standard approved proforma shall be provided by the contractor.**
68. The contractor shall provide detailed computations and back up of structural design sheets to BHEL.

69. The contractor shall provide all drawings and designs on auto CAD STADD-PRO or any relevant computer programmes. Copy of final design / drawings shall be made available to BHEL in soft copy also.
70. All structural designs shall be vetted by IIT / SERC / NIT at the contractor's own cost. Nothing extra shall be paid on this account. The structural design drawings and the calculation sheets shall be signed and verified by the proof checking agency and the certificates regarding safety of structure as per codal provisions shall be submitted to BHEL..
71. The terminal points of this scope of contract is from the inlet pipe valves below G.L to the outlet, scour, overflow pipe valves below ground level and all structures within the terminal points including the tank.

### Scope of Work for Swimming pool

1	Design & Drawing	Submission of design basis, design calculation for approval, Engineering & design of the Swimming pool and submission of construction drawings.
2	Pool size	
	Main Pool	25m x 12m (300 Sq.m.)
3	Kids Pool	5m x 2.50m (12.50 Sq.m.)
	Balancing Tank	18000 Litres
	Turn Hour	5.00 Hrs
4	Supply & installation of Filtration equipments for main pool	
	Filters-2 Nos.	Totally Anti-corrosive fiberglass reinforced polyester resin sand filter. 1050mm diameter fitted with pressure gauge panel, manual air bleeder, water drain and emptying plug fitted with collector arms and diffuser made from unplasticized PVC and polypropylene, Filtration velocity 40 Cum/ hr/ m <sup>2</sup> Maximum working pressure = 2.50 kg/cm <sup>2</sup> . Diameter = 1050 mm Flow Rate = 43 Cum/Hr.
	Multiport valve 2 Nos.	Multiport valve 2.5"
	Re-Circulating pump 3 Nos.	Cast Iron pumps 2860 rpm, Mechanical seal in Stainless Steel IP – 55, Maximum output 3.5 HP, Voltage 230 / 400 V, 3 phase. Flow rate of 46 m <sup>3</sup> /Hr @ 12m water head. (2 working + 1 stand by)
5	Supply & installation of Filtration equipments for Kids pool	
	Filters – 1 No.	Totally Anti-corrosive fiberglass reinforced polyester resin sand filter. 600mm diameter fitted with pressure gauge panel, manual air bleeder, water drain and emptying plug fitted with collector arms and diffuser made from unplasticized PVC and polypropylene, Filtration velocity 14 Cum/ hr/ m <sup>2</sup> Maximum working pressure = 2.50 kg/cm <sup>2</sup> . Diameter = 600 mm Flow Rate = 14 Cum/Hr.
	Multiport valve – 1 No.	Multiport valve 2.00"
	Re-Circulating pump 2 Nos.	Cast Iron pumps 2860 rpm, Mechanical seal in Stainless Steel IP – 55, Maximum output 3.5 HP, Voltage 230 / 400 V, 3 phase. Flow rate of 16 m <sup>3</sup> /Hr @ 12m water head. (1 working + 1 standby)
6	Filtration flow fittings for Main Pool	
	Pool drains – 5 Nos.	Supply and fixing of Anti-Vortex Drain
	Suction Inlet – 5 Nos. (Vacuum Point)	Suction inlet in ABS with cap internal thread of 1½" dia and external thread 2" dia.
	Wall Conduits for suction inlets -5 Nos.	PVC wall conduits 300mm long. Rear connection to pipe by 2" female adaptor.
	Floor Inlets -16 Nos.	White ABS Plastic bottom inlet for concrete with S.S. screws and regulable flow. Flow/inlet = 9,000 l/hr.
7	Under water illumination for pool	
	Supply and installation of underwater lights – 24 Nos.	"STANDARD" Model Under water Lights. Niche in polypropylene and glass fibre 300 W 12V lamp. With 3 mtr cable and in white ABS rim.
	Supply and	Transformer 300W 12V (Indian make).

	installation of transformers – 24 Nos.	
	Supply & installation of junction boxes – 24 Nos.	Junction boxes, made in ABS, composed of 3 entries ¾” or PG-16 couplings.
	Supply & fixing of flexible cable conduits – 24 Nos.	Cable conduit hose, flexible 1 mt long conduit for connecting light to junction box ¾” and PG-16 threaded ends.
8	Over flow gratings – 100 Nos.	Supply and fixing of overflow gratings Make: UV stabilized PP width: 295mm, Height : 35mm.
9	Chemical dosing system	
	Dosing pumps – 2 Nos.	Electronic dosing pumps to be mounted on its base as well as hung on the wall. Pumps following CE regulations, IP-65 protection. Power connections: 220/240V, 50/60 Hz. The materials in contact with liquid are: Polypropylene, Viton, Teflon and PVC. Includes anti-acid plastic case. Operating panel protection provided by a transparent polycarbonate cover. Lubrication not required. Flow 5 l/hr. @ 5 bar.
	Chemical storage tanks – 2 Nos..	Supply and installation of Semi transparent polyethelene tank with external scale scale so that levels can be checked easily, capacity of tank 100 lts.
	Agitators – 2 Nos.	Supply & Installation of agitators for easy installation in the tanks, provided with steering grip in Bakelite, rod and propeller arms in PVC, length of string rod 900mm.
10	Maintenance accessories	
	Anodized aluminium vacuum head with rollers conn. Butterfly nut – 1 No.	
	Transparent blue plastic vacuum hose 1½” dia – 1 No	
	15 mtrs long including hose cuffs for connection to suction inlets – 2 Nos.	
	Deep bag net made in polypropylene and white polyester netting butterfly nut connection – 1 No.	
	Surface net made in polypropelene and white polyester netting butterfly connection – 1 No.	
	Curved brushes made in polypropylene for pool basins and scum liners – 1 No.	
	Straight brushes made in	

	polypropylene for pool basins and scum liners – 1 No.	
	Algae brushes with stainless steel bristles – 1 No.	
	Reinforced aluminium telescopic handle 2.4-4.8m long with clip connection – 1 No.	
	Supply of test kit for free chlorine & pH – 1 No.	
	Supply of media for filters	Quartzite: 0.4 – 0.8mm - 2 Kg.
11	Safe Bearing Capacity of Soil	220 KN / SQM
12	Reinforcement Steel	Confirming to IS 1786 of Latest Edition
13	Cement	Grade 43 Confirming to IS 1182 of Latest Edition
14	Concrete	Applicable admixtures for workability / water tightness suitable for food grade water storage structures are to be used.
15	Stainless ladder and Hand Rails	Supply and fixing of stainless steel ladder 3 step 3 Nos.

1. Each construction joint shall be provided with required width and thick PVC water stopper of suitable size .
2. All the fittings shall be embedded in the structure while the work is in progress and all connections shall be left outside the structures with sluice valve/ control valves and other accessories in position ready for connection with incoming and outgoing pipes. The direction of scour pipe be kept towards the nearby drain as per direction of Engineer-in-charge.
3. All the specials/fittings/valves shall confirm to relevant standard .
4. No extra payment shall be entertained and the cost shall include all incidentals required for commissioning the plant.
5. **The above scope includes comprehensive maintenance of swimming pool for one year. The above scope is not exhaustive and the contractor has to take care of the additional requirement if any for commissioning of the plant at no extra cost.**
6. **Delivery schedule:**
  - i. Design and construction drawings has to be submitted within 15 days of award of work for approval from BHEL.
  - ii. Formal approval shall be given by BHEL within 15 days from the receipt of design and drawings for construction.
  - iii. The contract period specified shall include the above said period.

## Schedule of Payment

No advance payment is entertained. On each stage payment 10 % as security will be retained by BHEL till full security deposit as in clause 13 of the tender notice in price bid is reached. **Contractor has to furnish the material tallying statement (for BHEL issued materials) along with their invoice for each bill.**

a) On approval of design, construction drawing	5 % of the contract value
b) On completion of whole Civil works	40% of the contract value less payment already made in stage `a`
c) Supply of all equipments at site	70% of the contract value less payment already made in stage ( a ) + ( b )
d) Erection of the total system	80% of the contract value less payment already made in stage ( a ) + ( b ) + ( c )
e) On successful commissioning of the entire system.	90 % of the contract value less payment already made in stage ( a ) + ( b ) + ( c ) + ( d )
f) At the end of one year successful completion of Maintenance period [All costs of Operation & Maintenance of the swimming pool for one year period from the date of successful commissioning of the swimming pool, using contractor's labour, consumables, tools & plants including all repairs & replacement of all contractor supplied equipment in the swimming pool at contractor's cost during the maintenance period – all within quoted rate of this tender]	100 % of the contract value less payment already made in stage ( a ) + ( b ) + ( c ) + ( d)+(e)

## **REVERSE AUCTION**

**BHEL reserves the right to go for a Reverse Auction (RA)** instead of Opening the submitted sealed bid, which will be decided after technical evaluation. Information and general terms and conditions governing RA are given below.

### **GENERAL TERMS AND CONDITIONS OF RA**

Against this tender for the subject work/system with detailed scope of work as per tender specifications, BHEL may resort to "REVERSE AUCTION PROCEDURE" i.e., ON LINE BIDDING ON INTERNET.

1. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
2. BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.
3. BHEL will inform the vendor in writing in case of reverse auction, the details of Service Provider to enable them to contact & get trained.
4. Reverse Auction rules like event date, time, Start price, bid decrement, extensions etc. also will be communicated through service provider for compliance.
5. Vendors have to fax the Compliance form in the prescribed format (provided by Service provider) before start of Reverse auction. Without this, the vendor will not be eligible to Participate in the event.
6. BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at "Total Cost to BHEL" like Taxes and Duties, Freight charges, Insurance and loading factors (for non-compliance to BHEL standard Commercial terms & conditions) for each of the vendor to enable them to fill-in the price and keep it ready for keying in during the Auction.

However if the service tax is applicable for this contract, the same will be reimbursed on production of valid document proof for having paid service tax by the tenderer.

7. Reverse auction will be conducted on scheduled date & time.
8. At the end of Reverse Auction event, the lowest bidder value will be known on the network.
9. The lowest bidder has to Fax the duly signed Filled-in prescribed format as provided on case-to-case basis to BHEL through Service provider within 24 hours of Auction without fail.
10. Any variation between the on-line bid value and the signed document will be considered as sabotaging the tender process and will invite disqualification of vendor to conduct business with BHEL as per prevailing procedure.
11. In case BHEL decides not to go for Reverse Auction procedure for this tender enquiry, the Price bids and price impacts, if any, already submitted and available with BHEL shall be opened as per BHEL's standard practice.
12. BHEL reserves the right to negotiate if need be, with the "L1" vendor of the Reverse Auction

**Force Majeure clause:** If at any time during the continuance of this contract the performance in whole or in part by either party of any obligations under this contract shall be prevented or delayed by reason, of any war, hostilities, acts of the public enemy, civil commotion, sabotage, fires, explosions, epidemics, quarantine, restrictions or acts of GOD (hereinafter referred to as events) then provided notice of happening of any such events is given by either party to other within twenty one days from the date of occurrence thereof neither party shall reason of such events be entitled to terminate this contract nor shall either party have any such non performance and delay is resumed as soon as practicable after such events has come to an end or ceased to exist. If the performance in whole or part of any obligation under this contract is prevented or delayed by reason or any such event claims for extension of time shall be granted for period considered reasonable by BHEL subject to prompt notification by the tenderer to BHEL of the particulars of the events and supply to the BHEL if required of any supporting evidence. Any waiver of time in respect of partial installment shall not be deemed to be a waiver of time in respect of remaining deliveries.

The correspondence exchanged against the tender from both tenderer and BHEL through email are considered as valid document legally though it is not signed. It is treated as valid confirmations made on behalf of the respective company and very much comes under the legal ambit of the business transaction and hence it is binding on both the parties to the business.

Any transaction pertaining to the tender from both the parties of business done round the clock irrespective of the office or business hours of the companies, are valid legally and binding on both the parties. This applies to the extent only in such cases where deadline time for transaction is not specifically declared by either or both the parties to the business.

In case Letter of Intent (LOI) is issued through email, the PC generated time and date of mail shall be construed as the official time and date of release of LOI. In as much as this date is within the last date of validity given by the bidder the LOI is said to have been issued within the validity period and shall be binding on both the parties to the business.

Tenderers participating in the tender should declare in their technical bid that whether they have been black-listed / kept on hold for a specified period / given Business holiday for a specified period by any Public sector undertaking or Government departments. The reasons for such action with details and the current status of such hold shall be clearly furnished to BHEL. If no such details are mentioned in the offer then it will be construed that the subject bidder is not under any such hold. But at a later date if it comes to the notice of BHEL about any such hold under enforcement on the subject bidder, BHEL will have every right to reject the offer of such vendors at any point of time and also under any stage of the finalization of the subject tender irrespective of the status of the subject bidder in that tender. Such bidders will not be permitted to participate in the further tender proceedings and will be communicated suitably. They will not be also considered for any ongoing tenders even if participated till the hold is officially lifted and confirmed in writing.

**GENERAL AND SPECIAL CONDITIONS OF CONTRACT**  
**GENERAL CONDITIONS**

1. No night work will be permitted without the written permission of the Engineer – in – charge.
2. Bulkage test on the sand to be used on the work should be conducted periodically to arrive at the correct quantity of sand to be mixed for the different proportions as and when required.
3. Items of work other than those mentioned in the Bill of Quantities (Tender Schedule) attached hereto will be carried out at the rates to be fixed by this organization as per relevant clauses of the General Conditions of Contract.
4. Permission for erection of temporary work sheds etc., at site will have to be obtained from BHEL in writing in advance.
5. The works contract to be entered into with the successful tenderer will be governed by the BHEL revised General Conditions of Contract in force.
6. The successful tenderer / Contractor shall observe all safety regulations and take necessary safety precaution as called for under the “BHEL General Conditions of Contract and Safety Precautions” enclosed herewith.
7. In all matters of dispute, the decision of the General Manager, Bharat Heavy Electricals Ltd., Ranipet – 632 406 shall be final and binding on the tenderer / contractor.
8. Some changes are likely in the quantities furnished as well as in the layout, design and specifications of the work. The rate quoted shall be deemed to be inclusive of all such contingencies.
9. All the materials to be used in the work and nature of work shall conform to respective TNBP, IS and National Buildings Organization Standard Specifications and shall be got approved by the Engineer – in – charge before actual incorporation in the work
10. All surplus raw steel remaining with the contractor shall be returned to BHEL stores at his own cost after completion of fabrication, in the form of full lengths, useful cut bits and scrap. The following yardstick will be adopted for the purpose of classification of scrap.

(a) Mild steel and alloy Steel plates and sheets	1000X500mm and above	Useful cut bit
(b) Mild steel and alloy Steel plates and sheets	Less than 1000 X 500 mm	Scrap
(c) Structural	One metre and above in length	Useful cut bits
(d) Structural	Less than one metre in length	Scrap

The invisible (Non-returnable) wastage should not exceed a maximum of 2% by weight of fabricated steel work and returnable wastage generated by way of scrap or useful cutbits shall be returned at “Actuals”. Maximum permissible limit for scrap without recovery shall be 5% of actual fabricated quantity. However every care should be taken to see that raw steel is utilized most economically by preparing necessary cutting lists to restrict the scrap within the permissible limit.

Should the quantum of invisible wastage exceed the 2% permissible limit, RECOVERY AT TWICE THE VALUE OF the extra tonnage involved (which will be evaluated on an average cost per tonne basis considering the total raw steel materials issued ) will be effected from the contractor for the excess quantity involved ( **2 times x Rs. 46,500 = Rs.93,000 / MT + applicable taxes**).

The Contractor shall submit a material tallying statement on completion of the work indicating the details of quantities of each material (section by section) received quantities used for fabrication as per DOD lists. Quantity returned in full length, useful cut bits and scrap and the quantity reckoned as invisible wastage.

- a) **Single recovery rate for the non returned scrap : Rs. 46,500/- per M.T**  
**upto 5% of actual consumption + applicable taxes**
- b) **The punitive recovery rate for steel qty. not : Rs. 93,000/- per M.T.**  
**accounted and extra scrap generated beyond + applicable taxes**  
**5% of actual consumption**

## SPECIAL CONDITIONS OF CONTRACT

1. Cement, structural steel sections, reinforcement steel (MS rods, CTD bars etc.,) will be issued at BHEL Stores as stated in serial number 4 of preamble. The Contractor's quoted rates shall therefore be inclusive of the cost of conveyance of these items from BHEL Stores to site of work including, loading, unloading and other incidental costs etc.
  2. All surplus reinforcement rod with the contractor shall be returned to BHEL Stores at his own cost in the form of full lengths, useful cut bits and scrap. The invisible (non-returnable) wastage should not exceed a maximum of 0.5% of the actual quantity consumed in the work.
  3. The contractor shall return all the scrap to the disposal stores at his own cost. Bent rods will also be taken as scrap only, irrespective of their length. The maximum permissible limit of scrap without recovery is 5% of actual consumption. The recovery details for the materials are as follows:
    - a) **Single recovery rate for the non returned scrap upto 5% of actual consumption** : **Rs.41,975/- per M.T + applicable taxes**
    - b) **The punitive recovery rate for steel qty. not accounted and extra scrap generated beyond 5% of actual consumption** : **Rs.83,950/- per M.T. + applicable taxes**
- Excess consumption of cement over and above the theoretical requirement as per BHEL Data up to a limit of 5% will be charged at the rate of Rs.6,325/per M.T. + applicable taxes. Consumption beyond 5% will be charged at the punitive recovery rate of Rs.12,650/per M.T.. + applicable taxes.**
4. The Contractor should maintain proper accounts of cement, MS rods / CTD bars, structural steel sections ,Cast Iron Pipes, Specials and other materials if any supplied by this organization and these should be available at the site of the work for verification and check by the official of his organization at any time.
  5. All materials brought by the Contractor for incorporation in the work shall be got inspected and approved by the Engineer-in-charge before they are incorporated in the work
  6. The Manager / Civil or his duly authorized representative shall have all reasonable times access to Contractor's premises of work and shall have the power at all the reasonable times to inspect and test any portion of the work or examine the materials and workmanship of the structures during their manufacture and test. The contractor shall give due notice in writing to the Inspecting Engineer of BHEL when the materials supplied to be incorporated in the work are ready for Inspection and test. No material shall be incorporated in the work until the inspecting Engineer certified in writing that such materials have been inspected and approved by him.
  7. The contractor should submit in advance every fortnight a detailed programme of work to be undertaken from time to time strictly in conformities with the "Time and Progress Chart" covering the entire constructed work and reschedule them wherever necessary during the progress of the work so as to achieve the target set. Periodical progress reports of every fortnight should also be furnished by the Contractor regarding the collection of materials issued and to be issued from BHEL Stores and other relevant information as asked for by the Engineer-in-charge and other BHEL Officers-in-charge of the work.
  8. The contractor should extend full co-operation to the other contractors who may be doing other works in the same areas to enable them to execute their portions of work without any delay or difficulty.

## SHEDULE 'A'

### LIST OF WORKS AND PRICES

**NAME OF WORK: Design, construction, supply, erection and commissioning of swimming pool Ranipet – 6 Vellore District , Tamilnadu.**

DETAILS & QUANTITIES of each item of work shown in the BILL OF QUANTITIES are only approximate. They are given as a guide for the purpose of tendering only and are liable to variation and alteration of the Competent Authority. The work under each item as executed shall be measured and priced at the corresponding rate quoted by the contractor in the BILL OF QUANTITIES

Sl.No.	Description of work / supplied	Total amount of work / supplies (in figures and words)		Period of contract
		Rs.	Ps.	
1.	<b>Design, construction, supply, erection and commissioning of swimming pool (Main pool of size 25m x 12m + kids pool of size 5m x 2.50m) at BHEL Township, Ranipet – 6 Vellore District , Tamilnadu.</b>	-----		<b>6 Months</b>

### BILL OF QUANTITIES

Sl. No.	Appx. Qty.	Description of work	TNBP No.	Rate (Both in Unit fig & Words)	Amount Rs.	Ps.
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AS PER SEPARATE SHEETS ATTACHED CONTAINING 1 PAGE

**BHARAT HEAVY ELECTRICALS LIMITED  
RANIPET – 632 406**

**BILL OF QUANTITIES**

**NAME OF WORK: Design, construction, supply, erection and commissioning of swimming pool in township Ranipet – 6  
Vellore District , Tamilnadu.**

<b>Sl. No.</b>	<b>Quantity</b>	<b>Description of work</b>	<b>Rate (both in figures and in words)</b>	<b>Unit</b>	<b>Amount</b>
1	1	Design, Construction, supply and erection of necessary equipments, pumps, pipings, valves, drain pipes, filters, screens, underwater lightings, tiling works, electrical items etc., as specified in the scope of work and as directed by the Engineer – in – charge, including evolving structural design and drawing vetted by third party and approved by BHEL before starting the work. The quoted rate shall include design, drawing, construction including all materials that go in to the work, conveyance of material, loading unloading & all other incidental charges etc complete., and as per the scope of work in the tender.		Each	
					Total

(RUPEES ..... ONLY)

**NOTE:-**

1. Service Tax applicable shall be inclusive for this contract. Service Tax paid by the contractor with respect to this work will be reimbursed by BHEL on production of documentary evidence for having paid the service tax.
2. The period of contract is **Six months**. The contractor is required to plan accordingly and complete the work in time.

**SCHEDULE 'B'**

**LIST OF FREE ISSUE MATERIAL FROM BHEL STORE**

Sl.No	Name of Material
1	Nil

**SCHEDULE 'C'**

**ISSUE OF TOOLS AND PLANTS TO CONTRACTORS**

Sl.No.	Qty.	Particulars	Details of BHEL Crew Supplied	Hire Charges Per unit Per Day	Place of Issue	Remarks
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.....Nil.....

a. Machineries shall not be operated over time without the written permission of the Sr. Engineer / Dy. Manager / Manager.

b. All Coolies, Watermen etc., required in addition to BHEL crew mentioned in column 4 above shall be arranged by the contractor at his own expense.

**SCHEDULE 'D'**

NOTE: All Drawings are to be signed by the Contractor as well as the officer entering into contract.

SL.No.	DRAWING NUMBER	DESCRIPTION
		-----NIL-----

C.A.....Date .....  
(To be used in conjunction with BHE Ltd., General Conditions of Contract)

### AUTHORITY TO TENDER

Tender Notice No.

Office of the  
ADDL.GEN. MANAGER / CIVIL /PROJECTS &  
SERVICES,BHARAT HEAVY ELECTRICALS LIMITED  
RANIPET – 632 406.

Tender Schedule No.

**Item rate tender for work required Design, construction, supply, erection and commissioning of swimming pool in township Ranipet – 6 Vellore District , Tamilnadu.**

Messrs / Mr. ....

.....of.....

are / is hereby authorized to tender for the above work. The Tender is to be delivered at the Office of CIVIL PROJECTS & SERVICES Bharat Heavy Electricals Limited Unit, Boiler Auxiliaries Plant , Ranipet – 632 406, **up to 15.00 hrs. on 10.11.2011** addressed to the Manager / Civil / Projects & Services , BHEL. Boiler Auxiliaries Plant , Ranipet – 632 406, super scribing the name of work as mentioned above.

Any correspondence concerning this tender should be addressed as indicated above quoting the Tender Notice, Schedule No. and other relevant particulars.

BHARAT HEAVY ELECTRICALS LIMITED DO NOT BIND THEMSELVES TO ACCEPT THE LOWEST OR ANY TENDER.

Issuing Officer with  
Designation

Contract Agreement No.....

**TENDER**

To

The Additional General Manager/Civil/ Projects & Services  
Bharat Heavy Electricals Limited  
Unit : Boiler Auxiliaries Plant  
Ranipet – 632 406.

I / We hereby offer to carry out the **Design, construction, supply, erection and commissioning of swimming pool in BHEL township Ranipet – 6 Vellore District , Tamilnadu.**

I / We hereby carefully perused the following documents connected with the above noted work and agree to abide by the same.

- 1.Specifications (General & Particular )
- 2.Schedule 'A', 'B', 'C', 'D' & 'E'
- 3.BHE Ltd., General & Special Conditions of Contract, Tender Notice and Instructions to Tenders attached hereto.

I / We forward herewith the sum of Rs.....as Earnest Money, which shall be refunded should this tender be rejected. I / We further agree to deposit such sum which along with the sum of Rs.....mentioned above shall make up 50% of the fully Security Deposit for this work as provided for under conditions of the BHARAT HEAVY ELECTRICALS LIMITED General Conditions of Contract.

I / We further agree to execute all the work referred to in the said documents upon the terms & conditions contained or referred therein and as detailed in Schedule 'A' and Bill of Quantities annexure thereto and to carry out such deviations as may be ordered, vide conditions 6 of the BHEL Ltd., General Conditions of Contract up to a maximum of 20% of the tendered amount of Rs.....

I / We further agree to refer all disputes, as required by condition 62 of the General conditions of Contract to the sole arbitration of an Officer, to be appointed by the General Manager, B.H.E Ltd., in his sole discretion whose decision shall be final and binding.

**WITNESS**

Signature of the Contractor

Date :

1. ....

2. ....

**GENERAL SUMMARY**

1.	(a) Net Cost of works or building etc., from Schedule 'A'	Rs.
2.	Provisional sum	Rs.
		.....
	Total	Rs.
		.....

Rupees.....  
.....  
.....

Shri..... in the  
capacity of ..... has been  
duly authorized by me / us to sign the tender for and on behalf of  
.....

( in block letters )

Date :

SIGNATURE OF CONTRACTOR

Witness :

Postal Address :

1.....  
Address

Telephone No.

2.....  
Address

..... alterations have been made in the Tender Document and as evidence that these alterations were made before the execution of contract agreement, they have been initialed by the Contractor and the

.....  
.....  
.....

.....the said officer is hereby authorized to sign and initial on my behalf the documents forming part of this contract (Number of alternation in figures and words to be given here)

The above tender is accepted by me on behalf of the Bharat Heavy Electricals Limited, Unit : Boiler Auxiliaries Plant , Ranipet – 632 406.

for a sum of Rs.....  
.....  
.....

.....at the rates as indicated in Schedule 'A'.( Bill of Quantities)

Signature .....Date.....

Designation .....

## SPECIAL CONDITION

<p>1. Items of work other than those mentioned in Bill of Quantities will have to be carried out at the rates to be fixed by this organization .The same offered &amp; accepted percentage will be applicable with reference to CPWD DSR 2007.</p>
<p>2. Safety precautions should be taken while doing the work. You will have to follow all safety requirements to carry out the work inside the factory premises.</p>
<p>3. <b>CONTRACT CONDITIONS ON TAXES &amp; DUTIES.</b></p>
<p>3a The Tenderer shall have been Registered under Excise, Sales Tax, VAT, Service Tax regulations if applicable and provide a copy of such registration to BHEL as part of the tender document. In case of fresh registration/amendment thereon, the same shall be carried out before start of the work. PAN no shall be submitted as part the tender document. (copy to be enclosed)</p>
<p>3b. If payment of statutory dues are not made in accordance with the applicable provisions of the relevant Act within the time specified and Penalty, Interest etc paid/payable by the Contractor, the same shall not be reimbursed by BHEL and the entire implication is only to be borne by the Contractor. The Tenderer shall clearly indicate the rate of applicable taxes and duties for the work to be executed.</p>
<p>3c. The Tenderer shall indicate all exemptions on account of threshold limits or special notification under any stature. Any modification thereon shall also be intimated immediately on changes.</p>
<p>3d. The quote submitted shall include all taxes and duties of whatsoever in nature but exclusive of Service Tax which shall be quoted separately if applicable. The existing rate shall be quoted clearly. If reduced rates are applicable on account of material, labour if any the same shall be indicated clearly. After tender opening addition of any taxes &amp; duties are not admissible.</p>
<p>3e. If any composition scheme is to be availed by the Tenderer, the all relevant terms and conditions shall be indicated clearly in the offer. The required compliance under relevant statue shall be carried out.</p>
<p>3f. Any statutory variation will be to the account of BHEL. But if the variation is effective during the delayed/extended period of execution for reasons attributable to the vendor, the same shall be borne by the vendor only.</p>
<p>4. All materials shall confirm to the latest IS/IRC specifications</p>
<p>5. All works shall be carried out as per standard specifications and instructions of Engineer-in-charge.</p>
<p>6. All materials, colour, shade, brand, etc. shall be got approved from the Engineer-in-charge before the start of the work and shall confirm to the latest IS/IRC specifications.</p>
<p>7. The minimum wages applicable as per the Tamil Nadu minimum wages Act from time to time is to be paid.</p>
<p>8. The contractor have to follow all statutory requirements like PF, ESI etc., throughout the contract period.</p>
<p>9. The General conditions of contract in force shall apply to this contract.</p>
<p>10.The contractor is required to engage a qualified Engineer with sufficient knowledge of the work throughout the contract period.</p>

**11. Time is essence of the contract. Any delay beyond the delivery date will be subjected to LD.**

**12. BHEL will provide water at free of cost by identifying the water source (Open well) within the BHEL premises subject to availability and the contractor has to make their own arrangement for pumping the water from well and using the same after ensuring the suitability for the purpose. In case BHEL is not able to provide water as stated above, the contractor has to make their own arrangement for bringing the required quality of water at their own cost from outside BHEL premises for construction & testing purpose.**

**13. The contractor has to make their own arrangement for the required power supply for the execution of work. However BHEL will issue No-Objection Certificate for getting the temporary power service connection if required.**

**14. Cement, Reinforcement steel, structural steel & AC sheets will be issued free of cost for theoretical consumption. Recover will be made up to 5% over and above the theoretical consumption at a recovery rate of Rs. 6,325.00 / MT, Rs. 41,975.00 / MT, Rs. 46,500.00 / MT and Rs. 140.00 / Sq.m respectively beyond which penal recovery will be effected at double the rates specified above.**