



**UDANGUDI POWER CORPORATION LIMITED**  
(A Joint Venture of TNEB & BHEL)

TENDER SPECIFICATION FOR

OFFERING ENGINEERING CONSULTANCY & OWNER'S ENGINEER SERVICES FOR ESTABLISHING 2X800MW UDANGUDI SUPER CRITICAL THERMAL POWER PROJECT (A CDM PROJECT) IN TUTICORIN DIST, TAMIL NADU.

SPECIFICATION NO:CEO/UPCL/Specn No. 04 /2010-2011

LAST DATE FOR BID SUBMISSION : 14.00 HRS ON 10.08.2010  
TENDER OPENING DUE ON : 14.30 HRS ON 10.08.2010

Office of the  
President & Chief Executive Officer,  
Udangudi Power Corporation Ltd.,  
TNEB Complex,  
144, Anna Salai,  
Chennai – 600 002.

## INVITATION FOR BID

**Name of the Work:** Offering Engineering Consultancy & Owner's Engineer Services for establishing 2x800MW Udangudi Super Critical Thermal Power Project (A CDM Project) in Tuticorin District, Tamil Nadu.

For and on behalf of Udangudi Power Corporation Ltd., sealed tenders are invited in triplicate under Open Tender-Two part system for the following works:-

- 1) Description of work : Offering Engineering Consultancy and Owner's Engineer Services for establishing 2x800 MW Udangudi Super Critical Thermal Power Project (A CDM Project) in Tuticorin District, Tamil Nadu.
- 2) Tender Specification No. : CEO/UPCL/SPEC NO : 04 /2010-2011
- 3) Earnest Money Deposit : **Rs.1,00,000/-** (Rupees One lakh only)  
Note: Tenders submitted without EMD will not be accepted.
- 4) Last date for Submission of Bid : **10.08.2010 up to 14.00 Hrs.**
- 5) Date & Place of Opening of Tender (Techno commercial bid) : **10.08.2010 at 14.30 Hrs.**  
  
Office of the President & Chief Executive Officer, Udangudi Power Corporation Limited (UPCL), TNEB Complex, 144 Anna Salai, Chennai – 600 002. If the due date happens to be a holiday, the tender will be received & opened on the next working day.
- 6) Validity of offer : 90 days from the date of tender opening.
- 7) Method of submission of tender : Open tender-Two Part System
- 8) Number of tender offer copies to be furnished : In Triplicate
- 9) Place of Sale of Tender Specification & Clarification to be sought from : O/o President & Chief Executive Officer, TNEB Complex, 144, Anna Salai, Chennai – 600 002.  
Fax: (91) (44) 28544305
- 10) a) Sale of tender specification will commence from : **07.07.2010 at 11.00 Hrs.**

- b) Closing date for Sale of tender specification : **09.08.2010 up to 17.00 Hrs.**
- 11) Cost of Tender Specification if obtained in person : Rs.10,000/- (Rupees Ten Thousand only)  
Postage charges Rs. 250/-extra if sent by post  
However UPCL will not be responsible for any delay / loss in postal transit.
- 12) Publication of tender specification in web site : Tender specification can also be downloaded at free of cost from the following web sites  
[www.udangudipower.com](http://www.udangudipower.com)  
[www.tnebnet.org](http://www.tnebnet.org)  
[www.bhel.in](http://www.bhel.in)
- 13) Date & Time of pre-bid meeting : **26.07.2010 at 11.00 Hrs.**
- 14) Tender Inviting Authority : President & Chief Executive Officer,  
Udangudi Power Corporation Limited,  
TNEB Complex,  
144, Anna Salai,  
Chennai – 600 002.
- E-mail : [usctpp@gmail.com](mailto:usctpp@gmail.com)
- Phone Nos. : 044-28544304  
044-28544306
- Fax No. : 044-28544305
- Website : [www.udangudipower.com](http://www.udangudipower.com)

## INFORMATION TO BIDDERS

### I. PROJECT INFORMATION:

1.	Name of the project	Udangudi Power Corporation Limited 2x800 MW Coal based TPP
2.	Location	Udangudi Village
3.	District & State	Tuticorin District, Tamil Nadu State
4.	Land availability	939 Acres
5.	Latitude	08°27' N
6.	Longitude	78°03' E
7.	Altitude of the site	+2.00 m
8.	Road	ECR State Highway (SH 176) 0.5km away from the project site
9.	Railway Station	Tiruchendur (12 KM from project site)
10.	Airport	Vagaikulam (60 km from project site)
11.	Port	Tuticorin (45 Km from project site)
12.	Sensitive Areas	Gulf of Mannar (Approx. 45 km NE)
13.	Sea	Bay of Bengal (1.2 km East)
14.	Seismicity	Seismic zone II, Seismic Intensity VI on mm scale
15.	Total Annual Average Rainfall	625.8 mm
16.	Predominant Wind Direction	From West
17.	Coal requirement	5.157 MTPa (Blended coal) (30% Indigenous & 70% Imported coal)
18.	Water Requirement	The estimated sea water requirement is 13790 m <sup>3</sup> /hr (including for desalination)
19.	Raw water requirement	12 MLD
20.	Water transportation	Through Gravity Pipeline
21.	Raw water treatment	Sea water shall be treated in clarifiers filters and in desalination plant.
22.	Ash Generated per day	5663 Tons / day
23.	Project schedule	
a)	Zero date of the project	Date of award of BTG package
b)	COD of unit	Unit - 1 in 48 months Unit – 2 6 months thereafter
24.	Annual gross generation at 85% PLF	11913.6 million units
25.	Auxiliary power consumption	6%

## II. DEFINITIONS:

1. **'UPCL'** shall mean Udangudi Power Corporation Ltd.
2. **'Contract'** means the order issued by the purchaser incorporating all the Terms and Conditions and accepted by the contractor.
3. **'Contract Price'** shall mean the sum mentioned in or calculated in accordance with the provisions of the contract/purchase or any amendments thereto.
4. **'Contractor/Supplier'** shall mean the tenderer whose tender has been accepted by the 'Owner' and who executes the scope of works as per contract document and associated specifications, executed by the owner.
5. **'EPCC'** means Engineering Procurement Construction Contract
6. **'Consultant'** shall mean the provider of consultancy services whose tender has been accepted by the 'Owner' and shall include the tenderer's heirs, legal representative, successors and assignees.
7. **'Successful Tenderer'** shall mean the tenderer whose tender has been accepted.
8. **'Engineer'** means an engineering official nominated by UPCL to oversee the works performed by the consultant who is competent to verify the measurements of works and certify the same.
9. **'Tender/Bid'** shall mean the proposal / document the Bidder submits in the requested and specified form in the specification.
10. **'Tender Notice'** means a notice published in the dailies/website/notice Board in respect of this tender.
11. **'Week'** shall mean completed week consisting of a period of 7 (seven) days.
12. **'Month'** shall mean, English calendar month.
13. **'Site'** shall mean the place or places named in the contract and include, where applicable, the lands and buildings upon or in which the works are to be executed.
14. **'Plant'** shall mean and include the plant and machinery to be supplied/erected by the contractor under the contract.
15. **'Works'** shall mean and include the works to be done by the consultant under the contract.

16. **Letter of Intent** (LoI) means a communication conveying the intention of the purchaser to place the detailed order.
17. **Letter of Acceptance** (LOA) shall mean the UPCL's letter conveying its acceptance of the tender subject to such reservations/ conditions as may be stated therein. This acceptance letter precedes the detailed Order having detailed terms and conditions of the technical & financial parameters.
18. **"Two part system"** means a procedure under which the tenderers are required to simultaneously submit two separate sealed covers, one containing the earnest money deposit and the details of their bid qualifying requirements, capability to undertake the tender along with technical terms and commercial conditions except price bid which will be opened first and the second cover containing the price quotation which will be opened only if the tenderer is approved and qualified in the first instance to execute the work.
19. **'Earnest Money Deposit'** means the amount required to be remitted by a tenderer along with his tender indicating his willingness to implement the contract, which will be returned back to the bidder, if the bidder is not successful in getting the order. In case of successful bidder, it will be adjusted against SD payable.
20. **'Construction'** means all works associated with the construction, reconstruction, demolition, repair or renovation of a building structure or any other related works.

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**UDANGUDI POWER CORPORATION LIMITED**

**SECTION - I**

**INSTRUCTION TO BIDDERS**

**Name of the work :** Offering Engineering Consultancy & Owner's Engineer Services for establishing 2x800MW Udangudi Super Critical Thermal Power Project (A CDM Project) at Udangudi in Tuticorin District, Tamil Nadu.

**1.0 GENERAL:**

On behalf of UPCL separate sealed competitive bid under "Two Part" system on Open tender is invited in triplicate for offering Consultancy services to prepare the Tender specification for Balance of Plant under EPC (Engineering, Procurement and Construction Contract), attending the pre-bid meeting at site, Evaluation of Bids and offering post contract services for the Main Plant and Balance of Plant packages including project management services for the establishment of 2x800 MW, coal based super critical thermal power project at Udangudi in Tuticorin District, Tamil Nadu.

**Submission of Bid due on or before : 10.08.2010 at 14.00 Hrs.**

**1.1 SCOPE OF SERVICES:**

**1.1.1 Main Plant Package - Pre Contract Consultancy Services:**

Evaluation of Bid and assisting UPCL for award of EPC contract to M/s. BHEL for the Main Plant package of 2x800 MW Super Critical units for the following works. However the preparation of tender specification for the following is excluded from the scope.

- Super Critical Steam Generator and its Auxiliaries including balanced draft system, raw coal bunkers, milling system, boiler safety related equipment and ESP.
- Steam Turbine and its Auxiliaries including governing system, feed water system, regenerative heating system, condensate polishing unit, de-aerator, HP & LP Bypass system and condenser.
- Generator and its auxiliaries.
- Unified Distributed Digital Control and Supervisory Instrumentation system for all closed loop control system for the entire plant incorporating controls, interlocks, sequential control & events recorder.
- Compressed air system for both instrument air system and service air system.
- Generator Transformer, Station Transformer and Unit Auxiliary Transformer and associated protection system.
- Generator control, protection and metering system including control and relay panels and synchronizing panels for generator, generator transformers, unit

transformers, station transformers, auto synchronizer, sequential event logging for generator and subsystems.

- LT & HT switchgear systems
- Ash Handling System
- 400KV GIS Switch yard
- Desalination and Demineralisation Plant
- Air Conditioning and ventilation system
- Fire Detection & Fire Fighting System in BTG area.
- Illumination in BTG area.
- Cooling water pumps house including forebay and Cooling Water pumps.
- All associated civil works for the scope covered above.

#### 1.1.2 Balance of Plant Package – Pre Contract Consultancy Services:

- Tender specification has to be prepared for BoP package covering all the project components of Civil, Electrical and Mechanical works other than stipulated in Main plant package works offered to BHEL. The BoP package generally includes Internal coal handling system (terminal points of ECHS has to be demarcated), Cooling tower, Chimney, Cooling Sea Water Intake by gravity flow from 1600 m offshore, Cooling Water Outfall system (Cooling Water Blow down, etc..) at 360 m offshore, Cooling Water makeup pump House along with fore bay, Fuel Oil Pump House, Hydrogen Plant, Effluent Treatment Plant, Administrative building, General civil works other than those included in the BHEL scope, Fire fighting system, Air Conditioning and ventilation system, work shop, stores, dispensary, canteen, vehicle parking, roads, Drainages, peripheral rain water surplus course, Illumination, Identification of terminal points, other miscellaneous works which are needed for normal O & M of the plant including Environmental aspects, etc.
- Attending the pre-bid meeting with tenderers and furnishing reply to the queries raised by the bidders, Evaluation of Bids and assisting Udangudi Power Corporation Ltd., for award of EPC contract for the BoP package for the project.

#### 1.1.3 Project - Post Contract Consultancy Services for the entire Plant :

- Providing the project schedules for Main Plant and Balance of Plant packages. L1 level project schedule will be prepared by consultant. L2 and L3 level project schedules shall be prepared by EPC contractors and the consultant shall review the same.

- Monitoring the implementation of ERP package provided by the Main Plant Vendor.
- Monitoring of various project activities from award of contract, periodical review of supply position, erection, quality inspections, testing and commissioning by providing periodical weekly / monthly reports by using latest software (SAP or primavara, etc.)
- Review of contractors' Engineering Documents / Design basis report, EPC drawings, Documents, etc., and recommending to UPCL for approval.
- Interfacing issues of various packages with different agencies and Main Plant.
- Assisting UPCL in finalizing the equipments sizing and selection.
- Scrutinizing the Quality Assurance Plan
- Furnishing required Data for Clean Development Mechanism (CDM)
- Attending the review meetings, selection of sub-vendors / sub-contractors for approval by UPCL.
- Carrying out pre-inspection at vendors' premises for selective critical items as requested by UPCL.
- Technical assistance and preparation of documents required for submission and presentation for the project with Lenders, Investors, Statutory and Government Authorities.
- Complete Post Contract project management services and Site management services by posting a team of Engineers at site till commissioning of Units for establishing the proposed 2x800 MW coal based super critical power project (A CDM Project).
- Witnessing the PG test and analyzing the PG test report and recommending to UPCL for approval.
- Preparation of Defect and Liability list, preparation of warranty and Guarantee points for the EPC contractors, review of O & M Documents, etc.,
- Any other services not specifically mentioned in the scope of services, but essentially required for the successful commissioning of the units.

#### 1.1.4 Exclusions:

The following works are excluded from the scope

Preparation of tender specification for Main Plant and Allied Works package as per para 1.1.1

Entire works connected with coal jetty, shore unloaders, external coal handling pipe conveyor system and associated civil works up to junction tower in ICHS.

**1.2 EARNEST MONEY DEPOSIT: Rs.1,00,000/=(Rupees One lakh only)**

- 1.2.1 Intending tenderers should pay the Earnest Money Deposit as specified in Invitation for Bid.
- 1.2.2 The EMD specified above should be in the form of Banker's Cheque or Demand Draft from any of the Nationalized/Scheduled Banks in India. The Demand Draft or the Banker's Cheque shall be drawn in favour " Udangudi Power Corporation Limited" payable at Chennai. Cheque is not acceptable towards Earnest Money Deposit.
- 1.2.3 The EMD of all the bidders except that of the successful bidder will be returned by UPCL after the acceptance and Award of the contract.
- 1.2.4 Bid not accompanied with EMD in accordance with the above provisions will be summarily rejected by the Owner.
- 1.2.5 No interest will be payable by UPCL on the above EMD remitted by the tenderer.

**1.3 SCHEDULE FOR RECEIPT AND OPENING OF BID:**

- a) Tender Specification available from : 11.00 Hrs. IST on 07.07.2010.
- b) Date and time for closing of Tender specification sale : 17.00 Hrs. IST on 09.08.2010.
- c) Date of Pre-bid meeting with tenderer : 11.00 Hrs. IST on. 26.07.2010
- d) Last date and time for receipt of bids : 14.00 Hrs. IST on 10.08.2010.
- e) Date and time for opening of Techno-Commercial Bids : 14.30 Hrs. IST on 10.08.2010.

(If the due date for submission / opening of bid happens to be a holiday, the next working day will be the last day for submission / opening of bids.)

**1.4 BID QUALIFICATION REQUIREMENTS (BQR):**

- 1.1 Bidder should have executed or currently executing engineering consultancy work for at least one coal based Super-Critical TPS of unit capacity not less than 660 MW. For currently executing works, the bidder should have evaluated the tender for main plant package and the same would have been awarded based on the bidder's evaluation. A certificate from the owner of the plant shall be submitted stating that the main plant package was awarded based on the evaluation of the bidder.
- 1.2 The bidder should also have prepared the specification for the BoP package and the work has been awarded based on the specification for at least one coal based TPS of unit capacity not less than 200 MW and the power plant is in operation

prior to the date of submission of the bid. A certificate from the owner of the plant is to be obtained for the above and enclosed in the bid.

- 2.0 Necessary documents like P.O / W.O corresponding to the above certificate shall be enclosed.
- 3.0 The tenderer should have an annual turnover of not less than rupees 3 crore in any of the last three consecutive financial years prior to the date of opening of the tender. Audited balance sheet shall be enclosed in support of above.
- 4.0 The Indian subsidiary of any foreign company who is participating in the tender based on the credentials of the foreign company shall produce a MOU/ authorization certificate from the parent company to the effect that the bidder is an Indian subsidiary company and they will provide all necessary technical assistance to the Indian subsidiary for the entire duration of the project.
- 5.0 In case of consortium the total number of consortium partners including the prime bidder shall not be more than two. Consortium partners individually or jointly should fulfill the requirement Sl. 1.1 and 1.2. The prime bidder must comply the requirement of Sl 3 as well. The consortium partners must enter into an agreement indicating the responsibility of each in concurrence with their past experience and the copy of the agreement has to be submitted along with the bid.
- 6.0 The offers of bidders not furnishing the documents as required satisfying the BQR under clause 1.1, 1.2, 2, 3, 4 & 5 will be summarily rejected. Submission of post tender certificates/documents will not be accepted.

**1.5 PRE-BID MEETING:**

- a. The bidder or his authorized representative is invited to attend pre-bid meeting, which will take place at the following address.

Office of the  
President & Chief Executive Officer,  
Udangudi Power Corporation Ltd.,  
TNEB Complex,  
144, Anna Salai,  
Chennai 600 002,  
Tamil Nadu, India.

- b. Date and time for pre-bid meeting shall be as indicated in the Notice Inviting Tender.
- c. The purpose of the pre-bid meeting will be to clarify any issues regarding the bidding documents in general.
- d. The bidder is requested to submit queries in writing in the format as per Annexure – III to reach the Owner at the address indicated above, at least before two (2) working days of the pre-bid meeting.

- e. Any modification of the bidding documents which may become necessary as a result of the pre-bid conference or otherwise shall be made by the Owner by issuing clarification / amendment to the bid documents and also by notifying in the web site.

## **1.6 SUBMISSION OF TENDER:**

- 1.6.1 The Tender document of the Bid is divided into two parts and should be submitted in two separate sealed covers named as below:
- i. Sealed Cover- PART I (Envelope A): Techno commercial Bid.
  - ii. Sealed Cover- PART II (Envelope B): Price Bid.

Before submission of bid the bidders are required to verify and comply with the **Check list** enclosed as Annexure – I.

**Submission of Bid due on or before : 10.08.2010 at 14.00 Hrs.**

The offer should be addressed to:

President & Chief Executive Officer,  
Udangudi Power Corporation Ltd.,  
TNEB Complex,  
144, Anna Salai,  
Chennai 600 002,  
Tamil Nadu, India.

and if handed over in person, the same shall be handed over to the O/o President & CEO, Udangudi Power Corporation Ltd., TNEB Complex, Chennai-600 002 on or before the due date and time specified above.

- 1.6.2 The Bidders have the option of sending the bid by Registered post, Courier or submitting the bid in person, so as to ensure that the bids are received in the UPCL office, by the date and time indicated in the SI.No.1.3 above. Bids submitted by telex/fax/telegram/ e-mail etc. will not be accepted. UPCL will not take any responsibility for the delay in transit.

- 1.6.3 The sealed Envelopes A and B shall contain the following:

### 1.6.3.1 Envelope – A :

- i. Proof of remittance of EMD (Crossed Demand Draft / Banker's Cheque) shall be placed in Envelope A or in the overall sealed outer Envelope and duly superscribed on it the name of work, specification No. and the due date of tender with the name of the tenderer and sealed in an overall sealed outer Envelope along with proof towards Earnest Money Deposit.
- ii. Data/ Document regarding bid qualification requirements as per clause 1.4.
- iii. Technical specification, Details/ Proposals.
- iv. Commercial terms including payment terms, liquidated damages, guarantees, financial statements and other commercial matters.

- v. The organization chart proposed for this project in consultant's office and Project site shall be enclosed.
- vi. The contractor shall list out his experience, with documentary credentials of services rendered, proof in his offer in Envelope A.
- vii. **Check list** as per format.
- viii. **No Deviation Certificate** as per format.
- ix. Any other information called for in the specification other than price.

The above particulars shall be furnished in the above order superscribing the headings.

**NOTE:** Envelope – A: SHOULD NOT CONTAIN ANY PRICE BID.

1.6.3.2 Envelope – B:

SHOULD CONTAIN THE PRICE BIDS. This envelope should contain only the prices quoted by the tenderer against the scope of works mentioned in the schedule enclosed with this specification.

- 1.6.3.3 "Envelope -A", and "Envelope -B" along with proof towards Earnest Money Deposit shall be enclosed in an overall envelope and this shall be sent to reach the prescribed officer of the Corporation on or before the notified time, for the receipt of the tender as per clause 1.3.

All the pages in the Envelope A and B should be signed by the tenderer and his seal affixed below the signature. The words 'Envelope A' - (Techno Commercial bid) and 'Envelope B' - (Price bid) shall be clearly written on the respective covers to avoid accidental opening of Price Bid during tender opening.

- 1.6.3.4 Offers not satisfying the above requirements will be **summarily rejected**.

**1.7 OPENING OF TENDER:**

- 1.7.1 The tenders will be opened at the Office of the President & Chief Executive Officer, Udangudi Power Corporation Ltd., TNEB Complex, 144, Anna Salai, Chennai- 600 002 on the due date and time prescribed in the presence of such of those tenderers who may desire to be present. If the due date for tender opening happens to be a holiday, the tenders will be opened on the next working day.
- 1.7.2 The participating firms in the tender shall duly authorize the individual who attend the opening of tenders.
- 1.7.3 Envelope-A of those bidders who satisfy specification requirement will only be opened at the time notified for opening. If the bidder indicates the price in Envelope- A, the bid will not be read out and will be rejected.
- 1.7.4 The due date and time of opening of envelope-B (Price bid) of qualified tenderers will be intimated later.
- 1.7.5 If the tenderer has any doubt about the meaning of any portion of this specification, he

should at once seek clarification , at least 48 hours before opening of this tender. Any queries received after this time will not be replied.

**1.8 TENDER INVITING AUTHORITY:**

President & Chief Executive Officer, Udangudi Power Corporation Ltd.,, TNEB Complex, 144. Anna Salai, CHENNAI - 600 002, Tamil Nadu, India.
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Phone No:044-28544304 044-28544306
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Fax: 044-28544305
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E-Mail

usctpp@gmail.com



## SECTION – II

### COMMERCIAL TERMS AND CONDITIONS

#### **2.0 GENERAL:**

The scope of services for the "Consultancy & Owners Engineer Service" shall be as detailed in Section - III of this specification.

#### **2.1 LOCATION:**

The proposed project will be set up at Udangudi village in Tuticorin District, about 600 km south of Chennai and 45 km from Tuticorin. The site is very close to existing East Coast Road from Rameswaram to Kanyakumari (SH-176). The nearest Railway station is at Thiruchendur which is about 12 km from the site. The nearest airport is at Vagaikulam, which is about 60 km from the site. The nearest seaport is Tuticorin Port, which is about 45 km from the site.

#### **2.2 COMPLETENESS OF TENDER:**

The tender should be complete in all aspects.

The tenderer shall furnish all relevant details called for in the specification with supporting documents wherever required for consideration by Udangudi Power Corporation Ltd., The tenders not containing complete details as above are liable for rejection.

#### **2.3 PRICES:**

1. Tenderers shall quote **FIRM PRICE** in Indian Rupees only. The prices and rates quoted shall be firm for the entire duration of contract and any agreed extensions thereof.

The quoted price shall comprise of:

2. Charges for offering consultancy services for establishing a 2x800 MW coal based super critical thermal power project (A CDM Project) at Udangudi Site shall be specified category-wise separately as mentioned in the schedule attached to the specification.
3. No Escalation is payable for this contract. The contract does not attract any escalation, whatsoever the reasons may be.

#### **2.4 VARIATION IN QUANTITY:**

The quantities of the various items mentioned in this schedule of items are approximate, based on the preliminary information and may vary based on requirements. The claim will be allowed based on actual quantity only. The quoted rates shall remain firm and valid throughout the period of execution including extensions, for reasons what-so-ever, as

long as variation in the total value of work executed not exceeding 25% of the total value of contract.

## **2.5 VALIDITY OF TENDERS:**

Tenders should be valid for acceptance for a period of at least Ninety (90) days from the date of tender opening.

In case any bidder quotes a lower validity period than that called for, his offer shall be liable for rejection. In exceptional circumstances, the Owner may solicit the bidder's consent for an extension of the period of validity of their offer. The request and response thereto shall be made in writing (including fax or telex).

## **2.6 SECURITY DEPOSIT:**

- 2.6.1 The successful bidder will have to furnish a Security Deposit of five (5) percent of the total value of the Contract price after adjusting the EMD amount already remitted for the faithful performance of the Contract in accordance with the terms and conditions specified in the Contract and in the Tender Specification.
- 2.6.2 The Security Deposit shall be remitted by crossed Demand Draft/ Banker's Cheque obtained from a Nationalised/ Scheduled bank of India or any reputed Foreign Bank having branches in India and drawn in favour of "Udangudi Power Corporation Limited" payable at Chennai.
- 2.6.3 The Security Deposit can also be furnished in the form of an irrevocable Bank Guarantee on Non-judicial stamp paper of value not less than Rs. 80/- as per proforma enclosed in Annexure-IV, obtained from any Nationalised Bank/ Scheduled Bank of India.
- 2.6.4 The above Security Deposit shall be furnished within 30 days from the date of acceptance of the Purchase order. If the bidder fails to remit the SD within the stipulated period, the contract is liable for termination besides forfeiture of EMD. In the event of delay in furnishing of Security Deposit as prescribed above, UPCL reserves the right to accept belated payment of SD subject to levy of penal interest at the rate of 22% from the date of expiry of 30 days time allowed till the actual date of receipt of SD.
- 2.6.5 The Security Deposit Bank Guarantee shall be kept valid till successful completion of the contract, after which the Security Deposit will be returned to the Contractor. The SD paid by the contractor will not carry any interest.
- 2.6.6 If the owner incurs any loss or damage on account of breach of any clause mentioned in the tender specification / consultancy services contract to be awarded or any other cause arising out of the Contract, that becomes payable by the Contractor to the Owner, then the Owner will in addition to such other rights that he may have under the law, appropriate the whole or part of the Security Deposit and such amount that is appropriated will not be refunded to the Contractor.

## **2.7 PAYMENT TERMS:- (FOR THE WORKS COVERED IN THE ENCLOSED PRICE SCHEDULE):**

### **2.7.1 Preparation of Tender specification:**

Preparation of Balance of Plant Tender Specification for Establishing the 2 x 800 MW Udangudi Super Critical Thermal Power Project (A CDM Project) under EPC Contract Basis in Single Package.

- a. 40% of the price quoted for this item shall be paid on submission of draft tender specification for the package (10 copies).
- b. 40% of the price quoted for this item shall be paid on submission of final Tender specification for the package after approval by UPCL (20 copies and one soft copy).
- c. Balance 20% payment shall be made after issue of LOI for the package after adjusting the Liquidated damages for the delayed portion of the work if any.

### **2.7.2 Pre-contract services:**

#### **1) Pre-bid meeting:**

90% of the price quoted for pre-bid meeting shall be made on attending the meeting with all required particulars / Documents by the consultant, upon certification by the Competent Engineer of UPCL.

Balance 10% shall be released after award of contract for the package.

#### **2) Pre-bid replies**

90% of the price quoted for pre-bid replies shall be made based on the bills submitted along with ten copies of replies furnished for the pre bid queries by the consultant, upon certification by the Competent Engineer of UPCL.

Balance 10% shall be released after award of contract for the package.

#### **3) Evaluation and preparation of contract documents:**

One copy of Detailed Project Report and one set of all bids received by the UPCL in response to tender invitations for various equipment and services will be provided to the consultant for evaluations and comments.

50% of the price quoted for this item shall be made on completion of works for evaluation of bids (Techno-commercial) by the consultant, upon certification by the Competent Engineer of UPCL.

30% of the price quoted for this item shall be made on completion of works for evaluation of bids (Price Bid).

10% of the price quoted for this item shall be made after issue of Letter of Intent to the BTG / BoP Contractor.

Balance 10% shall be released after preparation of contract documents based on the bids submitted along with ten copies of the final contract document by the consultant, upon certification by the Competent Engineer of UPCL.

**2.7.3 POST CONTRACT SERVICES :**

For items III 'a' to 'e' referred in Price Schedule attached to this specification

90% payment of the approved billing breakup/actual quantity of execution shall be made on monthly pro-rata basis after the bills submitted by the consultant are duly certified by Competent Engineer of UPCL.

Balance 10% payment shall be released after commissioning of both the Generating Units and after satisfactory completion of work in all respects and after adjusting the Liquidated damages and penalties if any for the delayed portion of work.

2.7.4 Payment will be made by Cheque on any one of the scheduled banks or their branches in Tamil Nadu as may be decided by the company from time to time. If the contractor requests for DD payment, Exchange Commission for issue of bank draft will be to the account of the tenderer. Under any circumstances no advance payment will be made by UPCL.

2.7.5 Generally payment for the bills will be made within 30 days after presentation of the bills duly certified by the UPCL Engineer.

**2.8 PERIOD OF CONTRACT:**

The period of contract shall be as follows:-

2.8.1 Pre-contract services of Consultancy work : Total 6 months from the date of LOI for consultancy contract.

The duration of mile stone activities is furnished below

- a) Evaluation of BTG package : 30 days from the date of handing over of BTG specification Documents to the consultant by UPCL.
- b) Preparation of Draft Tender specification for Balance of Plant Under single EPCC package : 45 days from the date of issue of LOI for consultancy contract by UPCL.
- c) Submission of Final Tender specification for BoP under single EPCC package : 15 days from the date of approval of draft tender specification by UPCL.

2.8.2 Post contract services of Consultancy work: Total 54 months from the date of award of main plant package excluding PG test.

## **2.9 FORCE MAJEURE:**

- 2.9.1 Neither the Contractor nor the Owner shall be considered in default in performance of its obligations hereunder if such performance is prevented or delayed for any causes beyond the reasonable control of the party affected, such as war, hostilities, revolution, riot, civil commotion, epidemic, major fires, explosions, floods, earthquakes or because of any law, order, proclamatory regulations or ordinance of Government or because of any act of God, provided notice in writing of such cause with necessary evidence that the obligation under the Contract is thereby affected or prevented or delayed, is given within 14 days from the happening of the event and in any case if it is not possible to serve the notice within 14 days period, then within the shortest possible period without delay. In case the force majeure conditions prolong beyond a continuous period of 6 months, the Owner shall be entitled to decide the further course of action including revisions in the terms of Contract if any, Cancellation etc.,
- 2.9.2 As soon as the cause of Force Majeure has been removed, the party whose ability to perform its obligation has been affected shall notify the other party the actual delay occurred on account of such activities.
- 2.9.3 Although the time for completion of work shall be suitably extended (not exceeding the period during which the work was stopped on account of Force Majeure clause), such extension shall not result in any additional claim by the Contractor against the Owner on any account of such a delay for any other reason whatsoever.

## **2.10 SUBLETTING OF WORK:**

The contract shall not be assigned or sublet and any attempt to do so, the Engineer In-charge shall have the power to invoke any relevant clause including the termination of the contract, as deemed fit in the interest of UPCL.

## **2.11 LIQUIDATED DAMAGES AND PENALTIES:**

The delivery/completion period specified under clause 2.8 "Period of contract" shall be guaranteed under liquidated damages clause given below:

- 2.11.1 If the Contractor fails to complete the works within the time fixed by the owner in the consultancy services contract to be awarded and accepted by the successful bidder or any extension thereof, the owner shall recover from the contractor as Liquidated Damages, as stipulated below :

### **2.11.1.1 Pre-Contract Services:**

Preparation of Tender Specification For Balance of Plant Establishing The 2 x 800 MW UDANGUDI SUPER CRITICAL THERMAL POWER PROJECT (A CDM Project) Under EPC Basis in Single Package.

- a) In case of delay in submission of the EPC tender specification (Draft / final) by the consultant beyond the time limit stipulated in the contract then 0.5% of the respective contract value will be levied as penalty for each week of delay subject to the total penalty not exceeding 10% of the contract price of the works so delayed.

b) Pre-bid replies, evaluation and contract documents: If there is any delay in preparation of the above work by the consultant within the time specified in the contract., (2.8.1 of this section) then 0.5% of respective contract price (II 'b' & 'c' of the schedule put together) will be levied as penalty for each week of delay subject to the total penalty not exceeding 10% of the contract price of the works so delayed.

#### 2.11.1.2 Post Contract Services :

If there is any delay in post contract consultancy services, activities or lack of quality or if any neglect by the consultant in the monitoring process and failure to forecast / inform the delay to the notice of Owners (UPCL) in time is established, then 0.5% of contract value will be levied as penalty for any cited activity subject to the total penalty not exceeding 10% of the contract price of the works so delayed.

2.11.2 However the Total penalty for Pre-Contract & Post – Contract Services will not be more than 10% of the total contract price.

2.11.3 In case the final commissioning of the unit is achieved within overall agreed schedule of completion, the LD deducted for mile stone activities will be refunded.

### **2.12 TAXES:**

#### 2.12.1 Service tax :

Service tax if applicable shall be admitted by the corporation upon furnishing of ST Code, registration no. and ST account no. in the invoice.

As per latest guide lines, 10.30% Service Tax inclusive of education cess on service tax on the consultancy services shall be admitted. However service tax rates are subject to statutory variation. For the delayed completion of services attributable to the contractor, the increase in service tax if any will be to the account of the contractor.

#### 2.12.2 Income Tax:

Tenderer shall submit Xerox copy of PAN card along with tender. Income Tax, as applicable will be deducted from the amount due to the contractor.

### **2.13 JURISDICTION FOR LEGAL PROCEEDINGS:**

No suit or any proceedings in regard to any matter arising in any respect under this contract shall be instituted in a Court, Save in the City Civil Court of Madras or the Courts of Small Causes at Madras. It is agreed that no other courts shall have jurisdiction to entertain any suit or proceedings even though part of the cause of action might arise within their jurisdiction. In case any part of cause of action arises within the jurisdiction of any of the courts in Tamil Nadu and not in the courts in the Chennai City, it is agreed to between the parties that such suits or proceedings shall be instituted in a court within Tamil Nadu and no other court outside Tamil Nadu shall have jurisdiction, even though any part of the cause of action might arise within the jurisdiction of such courts.

The bidders shall furnish an undertaking in a non-judicial stamp paper of value Rs.80/- agreeing to the above condition as per schedule furnished in Annexure-V.

#### **2.14 ARBITRATION:**

Arbitration is not applicable to this contract.

#### **2.15 INSURANCE:**

From the Effective Date of Contract and for the duration of contract, the consultants shall take a policy covering workmen's compensation for the consultants and their staff. The consultants shall be responsible for payment of insurance premium against this policy and also follow up the claims that may arise out of or in commotion with the same.

The consultants shall take a policy covering Automobiles, third party liability insurance and property damage insurance covering automobiles owned or hired by consultants of use in the performance of the Service.

#### **2.16 SECURITY:**

The Consultant shall hold in strict confidence of all data, information and records received by him from the OWNER and shall not surrender the same to third parties without prior written approval of the OWNER.

#### **2.17 SPECIAL CONDITIONS:**

- 2.17.1 The contractor shall list out his experience, along with performance report obtained from the owner of the plant regarding consultancy services rendered / being rendered and provide proof with documentary credentials like P.O / Work Order issued to the tenderer for undertaking consultancy work, in his offer in Envelope A.
- 2.17.2 The tenderers should clearly indicate their acceptance to all the terms and conditions of the specification.
- 2.17.3 All information in the bid shall be in ENGLISH only. All corrections, over typing etc. in the tender should be attested. Tenderers are advised to post sufficiently early so as to ensure that the tenders reach this office in time. Tenders though posted in time but delayed in transit by post will not be considered, if received after the due date and time.
- 2.17.4 Site office, Office equipments, accommodation and other requirements if any should be borne by the contractor only.

#### **2.18 REJECTION OF TENDERS:**

Tender is liable to be rejected if:

- a) Not in the prescribed form and not containing all the required details.
- b) Not properly signed by the tenderer.
- c) Received after the expiry of the due date and time.
- d) Received by telex, telegram, FAX or E-mail.

- e) Not in conformity with the UPCL's technical specification and is not given as a complete system but only in part.
- f) With validity period less than that specified in the specification.
- g) Incomplete and ambiguous.
- h) Received from blacklisted contractor or firm.
- i) Received from a tenderer who is directly or indirectly connected with Government services or service of local authority.
- j) Received without the details of the past performance.
- k) Received with Techno - Commercial Deviations.
- l) Not accompanied by copy of PAN Card

**2.19 TERMINATION OF CONTRACT:**

UPCL reserves the right to terminate the contract of consultancy after giving due notice, in case of Default on the part of the Consultant as given below.

- 1) Non-adherence to the mutually agreed schedule for flow of information.
- 2) Delay in preparation of tenders specification.
- 3) Delay in finalization of bid recommendations.
- 4) Delay in review of Design, Documents and other inputs required for timely completion of the project.

**2.20 NEGLIGENCE:**

UPCL shall be at liberty to take the work wholly or in part out of the scope of consultant and assign the same to other party or parties at the risk, cost and responsibilities of the consultant, under the following circumstances:

- 1) Professional neglect in rendering services within the scope of contract.
- 2) Non-compliance to the orders, given in writing by the UPCL to comply with certain provisions of the contract of the project by delaying various inputs data / drawings and comments, etc.
- 3) Non-co-operation on the part of the consultants for expediting the project by delaying the various inputs data / drawings and comments etc.

**2.21 PENALTY FOR DEFECTIVE WORK:**

The consultants will be responsible for any defective work caused due to errors in design and drawings, quality of supervision, time delay, etc. including consequential loss

on this account to UPCL subject to maximum of 10% of the total value of consultancy contract apart from the other terms and conditions including LD clause.

**2.22 THE CORPORATION RESERVES THE RIGHT:**

- a) Not to accept the lowest or any tender.
- b) To relax or waive any of the conditions stipulated in the tender specification as deemed necessary in the best interest of the Corporation for good and sufficient reasons.
- c) To revise the quantum of works/ completion period of work of any or all the items covered by this enquiry during the pendency of contract and to terminate the contract in between the agreed stipulated period.
- d) To reject any or all the tenders without assigning any reasons thereof.

**2.23 CORRESPONDENCE:**

The consultant shall respond to the various communication made by the UPCL or suppliers quickly. For all important documents, Speed post / Registered post shall be used.

Approval period shall be reckoned from the date of receipt of the communication / documents by the consultant and receipt of reply thereof by UPCL.

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## SECTION – III

### TECHNICAL SPECIFICATION

#### CONSULTANCY CONTRACT FOR ESTABLISHING A COAL BASED 2 X 800 MW SUPER CRITICAL THERMAL POWER PROJECT (A CDM PROJECT), AT UDANGUDI IN TUTICORIN DISTRICT

#### **3.0 SCOPE OF SERVICES:**

#### **3.1 PRE-CONTRACT SERVICES:**

##### **3.1.1 EPC Tender Specification:**

Preparation of tender specification under EPC (Engineering, Procurement and Construction Contract) for Balance of Plant in single package (excluding Main Plant along with associated Civil works, Cooling water pump house along with fore bay and Cooling Water pumps, 400 KV GIS Switchyard, Desalination & Demineralisation plant, Ash handling system and ERP) assisting UPCL in the interfacing issues of various equipments with main plant equipment ((i.e) Boiler, Turbine & Generator) vendor M/s BHEL.

Technical specification for EPC contract for the above coal based thermal power project is to be prepared based on the DPR / actual need of UPCL and the terminal points are to be clearly demarcated. UPCL comments on the draft specification should be considered while preparing the final specification.

Draft Tender specification (10 Copies) shall be furnished to UPCL within the time stipulated in clause 2.8.1 (b).

After approval by UPCL twenty (20) copies and one soft copy of the Final Tender specification are to be furnished.

##### **3.1.2 Pre Bid Meeting & Pre Bid Replies:**

- i. The consultant shall participate in the pre-bid meetings with prospective tenderers.
- ii. The consultant shall prepare reply to pre-bid queries and furnish clarification/additional details if any required by the bidders on the specification.

### 3.1.3 Evaluation of Bids:

All the techno commercial and price bids of Main Plant and Balance of Plant packages received are to be evaluated and a report with recommendation shall be submitted to UPCL for final decision. If required, the consultant shall participate in the discussion with the bidders during negotiations for finalization of the contract.

In case, the tenderer offers equivalent and alternate equipment in place of the original equipment mentioned in the tender specification, then recommendations on the suitability of the equipment should be furnished by consultant.

The consultant shall assist UPCL in the preparation of LOIs (Letter of Intents) and Draft purchase orders to the successful EPCC bidder.

### 3.2 **POST CONTRACT SERVICES:**

Providing the project schedules for various packages including the main plant, monitoring of various project activities from award of contract to commissioning of project, periodical review of supply position, erection, quality inspections, testing and commissioning of project by providing the periodical reports ( Weekly / Monthly) by using latest software (viz., SAP, Primavera, etc.). The Consultant shall handle all the aspects of the projects, including assisting UPCL in the interfacing issues of various packages with main plant equipment ( Boiler, Turbine & Generator). The major systems covered in the scope of post contract services of the Consultant are given below. However, the Consultant shall render his services for all other systems as well that are necessary for the successful operation of the plant.

- Steam generator and associated auxiliaries.
- Steam Turbine and associated auxiliaries
- Generator and associated auxiliaries.
- Drawl of sea water from deep sea,
- Cooling Water system for condenser, Aux. cooling etc.
- Cooling Water blow down system
- Water treatment system including RO/Desalination plant/DM Plant.
- Feed water system, MS & RH steam system, auxiliary steam system, condensate system, HP & LP by-pass system.
- Fire protection System and Fire fighting system.

- Ash Handling system including recovery water system and dry fly ash conveying system.
- Internal Coal handling system.
- Hydrogen Plant.
- Chlorination System.
- Raw water systems including auxiliary CW system.
- Pulverising/ Milling systems and mill reject conveying system.
- Fuel oil storage and handling system.
- Miscellaneous pump house such as Raw Water Pump House, Fuel oil pump House, Fire Water Pump House.
- Station building including TG Floor, EOT Crane etc.
- Compressor House.
- Effluent Water treatment system.
- FGD plant, if required
- Air conditioning and ventilation system
- HV, MV, LV switchgear
- 400 kV/765 kV GISS and switch yard system
- Generator Transformers, switchyard equipment
- Generator and feeder protection
- Instrumentation and control
- DDC and MIS
- On line steam and water analysis system (Sampling)
- Environmental analysing and monitoring
- Plant DC system, earthing and lightning protection
- Civil works of the entire plant
- Any other system related to the power plant but not specified herein may also be included.

### **3.3 REVIEW OF CONTRACTOR'S ENGINEERING DOCUMENTS/DESIGN BASIS REPORT:**

The Consultant shall review Contractor's Design Basis Report covering basic engineering concepts, design criteria, design procedures etc to ensure that the resulting detailed engineering and subsequent procurement and construction would meet the contractual requirements and suggest proposals to UPCL for approval. During the review, the following aspects shall be taken into consideration.

- a) Scope of work
- b) Technical requirements
- c) Adherence to codes and standards
- d) Compliance to environmental and other statutory norms
- e) Safety, reliability, operability and maintainability aspects
- f) Material safety and disposal standards as applicable etc

### **3.4 REVIEW OF EPC DRAWINGS, DOCUMENTS AND OTHER SUBMISSIONS:**

The consultants shall review & report and alternate proposals shall be advisory in nature such that the extent and efforts are not duplicating Contractor's detailed engineering activity. The consultant shall review to ensure the execution is progressing along agreed contractual lines and.

The review shall cover the following:

- a) All basic studies and concept notes
- b) Basic as well as detailed engineering and design
- c) Design manuals indicating design criteria, design procedures & assumptions, software details etc.
- d) Plot plan and Area plans
- e) General arrangement drawings of all the systems, buildings and facilities
- f) Flow diagrams, heat and mass flow diagrams and schematics including piping drawings of steam, water and air systems
- g) Piping layout and isometric drawings of all systems
- h) Electrical single line diagrams
- i) Instrumentation and control schematics, Panel configuration drawings and control room layout drawings
- j) Logic diagrams
- k) Protection schemes
- l) Integration of different systems for plant automation.
- m) Technical data sheets and performance curves/data of major plant and equipments
- n) Verifying all design calculations of structural/foundations all systems using standard software like STADD PRO.
- o) Verifying all the design calculations of electrical systems using standard software EDAT etc.,
- p) Any and all of the Contractor's drawings and documentation such that plant

aesthetics, layout, maintenance ease are addressed but shall not include fabrication drawings, construction drawings, erection drawings, component and/or sub assembly drawings of equipment etc.

**3.5 REVIEW OF DOCUMENTS UNDER “ PROCUREMENT”:**

Review of Contractor’s documents is to ensure that all plant, equipment and services that are procured by the Contractor are in line with the requirements of the contract.

The documents to be reviewed shall include:

1. Purchase specifications of major plant and equipment sub contracted by the Contractor
2. Purchase specifications of all civil works sub-contracted by the Contractor
3. Selection of sub-vendors/sub contractors based on the credential and recommending for approval by UPCL.

**3.6 REVIEW OF QUALITY ASSURANCE PLAN:**

This would cover the following tasks related to quality assurance aspects of the Project.

- a) Assessing the credential of Sub-Contractors proposed by the EPC contractor and recommendations for approval by UPCL.
- b) Review and finalization of the EPC Contractor’s/sub-contractor’s and its vendor quality plans such as QA & QC including customer hold points for inspection. The Consultant shall indicate in the Bid proposal the customer hold point that are necessary to ensure quality.
- c) Review and finalization of shop and site performance test procedures for all major equipment and systems
- d) Attend pre-inspection at vendors’ premises for selective critical items as requested by UPCL.

**3.7 SUPPORT TILL ALL DETAILED AND BASIC ENGINEERING REVIEW IS COMPLETED.**

Technical assistance and documents required for submission and presentation for the Project with lenders, Investors, Statutory and Government Authorities’.

**3.8 SCOPE FOR OFFERING PROJECT MANAGEMENT SERVICES:**

3.8.1 The Project Management Services and responsibilities would include the following:

3.8.2 Providing the Master project schedules for the packages including the main plant, monitoring of various project activities (From award of contract, Supply position, Erection,

Quality assurance and Commissioning by providing the periodical reports (Weekly / Monthly) by using a latest software such as SAP or other.

- 3.8.3 Participation in project coordination & Engineering Review meetings regularly
- 3.8.4 Review of Master Network Schedule and other detailed network schedules, preparing the revisions and updates.
- 3.8.5 Review of project coordination and communication procedures
- 3.8.6 Progress review and monitoring with respect to Network schedule, participation in review meetings at project site, works or at UPCL office.
- 3.8.7 Monitoring supply of materials for the packages.
- 3.8.8 Review and certification of change orders
- 3.8.9 Support to UPCL in settlement of claims and disputes for the Project
- 3.8.10 Assisting UPCL for the project in providing solutions in resolving design related problems, interfacing between various issues and contractual problems and site related issues.
- 3.8.11 Preparing of weekly and monthly MIS reports for progress.
- 3.8.12 Monitoring progress with actual and budgeted and indicating the slippages, deviations and suggesting the remedial measures.
- 3.8.13 The review meeting may also be held outside Chennai/ Project site or at Works.
- 3.8.14 Preparation of Minutes for co-ordination meetings, Technical discussion meetings, Review meetings, etc.,
- 3.8.15 Offer consultancy services wherever necessary for smooth execution / completion of the project.

**3.9 SITE MANAGEMENT SERVICES:**

- 3.9.1 Continuous supervision of construction, erection, testing and commissioning of plant, equipment and facilities including the civil works by the EPC Contractors to ensure full compliance of the EPC Contract with regard to quality, safety and performance.
- 3.9.2 Review of construction schedules and monitoring, co-ordination of various site activities through owner's engineer with respect to the latest approved schedule.
- 3.9.3 Assisting Udangudi Power Corporation Ltd., regarding adequacy of special tools, equipments, manpower and resources of contractor for the project.
- 3.9.4 Review of EPC Contractor's work plans for ensuing week/month
- 3.9.5 Preparation of weekly/monthly site progress reports covering current construction status, deviations from approved schedules, critical areas and proposed remedial measures
- 3.9.6 Assisting Udangudi Power Corporation Ltd., regarding technical problems encountered at site.
- 3.9.7 Proposing corrective actions to be taken in case of works that are not in line with

approved design/specifications.

- 3.9.8 Review and offering remarks regarding field changes desired by contractor
- 3.9.9 Regular review and offering remarks regarding the site quality assurance plans and compliance.
- 3.9.10 Review the invoice presented by contractors and recommending to UPCL for payment.
- 3.9.11 Advice on safety aspects during construction and commissioning of the Project and monitor the contractor's safety efforts.
- 3.9.12 Review of documents for testing, commissioning, performance testing for establishing guaranteed performance parameters and for operation and maintenance and training of personnel.
- 3.9.13 Review of pre-commissioning checklists for various equipments and systems
- 3.9.14 Interface and coordinate activities to monitor the plant testing in all respects, verify that all requirements in testing programme from initial synchronization of the unit through all performance testing.
- 3.9.15 Witness Performance Guarantee at site on all the important equipment/systems, review and evaluation of test results, with comments/recommendations, conduct independent calculations to verify test results.
- 3.9.16 Adequate engineering personnel shall be deployed at site for monitoring all the above aspects as per clause 3.13.2 of section III.

### **3.10 PLANT TAKE-OVER SERVICES:**

- 3.10.1 Witness Performance Guarantee Testing of the plant to be conducted by the EPC contractor at site prior to take-over.
- 3.10.2 Assistance to Udangudi Power Corporation Ltd., in analyzing the PG test results, interpretation and acceptance of the test results for approval.
- 3.10.3 Preparation of Defect and Liability list.
- 3.10.4 Preparation of Warranty and Guarantee points for the EPC Contractor

### **3.11 O&M DOCUMENTS REVIEW:**

- 3.11.1 Review of O&M manuals
- 3.11.2 Review and approval of jointly agreed " as built drawings"/ completion reports prepared and submitted by EPC Contractor.
- 3.11.3 Review of spare parts lists and determination of adequacy based on the Equipment Overhaul and running hours.

3.11.4 Review the Transition plan and support during the period of transition between the O&M contractors stepping-in and the EPC Contractor stepping-out.

### **3.12 SHOP INSPECTION, QUALITY ASSURANCE AND TESTING SERVICES**

The scope shall include witnessing the shop Inspection test at the manufacturer's works for selective critical items like Boiler, Steam Turbine, Generator, Generator Transformer etc., and recommending UPCL for Material Despatch Clearance. The inspection may have to be done outside India also.

### **3.13 POSTING SITE ENGINEERS:**

3.13.1 A team of well qualified Engineers served in Power Projects / Generating Stations shall be deployed for monitoring the progress of works at site. The above engineers' resume shall be got approved from the UPCL before posting them at site. The responsibility of the above team shall be fixed so that they have to coordinate between various contractors, monitor and report the progress of all works related to finalizing documents and drawings, follow up of field work for quality assurance, monitoring the supply position of material & equipment and to ensure that there is no slippage or delay in completion of all activities within the scheduled period of time.

3.13.2 The consultant shall post engineers as given below at the site as per UPCL requirement for site management till the commissioning of the plant and they will co-ordinate with different agencies.

i) PM/Sr. Engineers	63 man months	-	Engineering Graduate with minimum 15 years experience in the relevant discipline.
ii) Middle level Engineers	124 man months	-	Engineering Graduate with minimum 10 years experience in the relevant discipline.
iii) Jr. Level Engineers	131 man months	-	Engineering Graduate with minimum 5 years experience in the relevant discipline.

Total **318 man months**

3.13.3 The site team shall manage the site activities specified under "Site Management Services". Besides, the team shall be responsible for all project document control and shall prepare the "Project Completion Report".

- 3.13.4 The consultant in the bid proposal shall give a narrative of action plan in respect of quality control and monitoring.
- 3.13.5 The Engineering team that monitor the site activities shall correspond to the company's Engineer at field management regarding site quality assurance and compliance.
- 3.13.6 Any other item not specifically indicated in the scope of services, but required for effective commissioning of the project as per the best practices followed in the Power Industries should be taken into account.
- 3.13.7 The details mentioned in the specification are only indicative. However the consultant shall get familiarized with the proposed project site and all allied facilities & facts and suggest ways and measures to Udangudi Power Corporation Ltd., for effective implementation and the cost thereon shall also be taken into consideration while quoting the tender.

**3.14 ERP (ENTERPRISE, RESOURCE, PLANNING):**

Udangudi Power Corporation intends to have a proven web server based comprehensive ERP system with following major functionality modules.

- a) Project Management
  - b) Materials Management
  - c) Finance and Accounts
  - d) Human Resources
  - e) Operation and maintenance
  - f) Interface for non ERP systems such as Thermal Performance Monitoring, DDCMIS etc., - for monitoring purpose
  - g) MIS/TNERC reporting
- 3.15 The Detailed Project report to be supplied by Udangudi Power Corporation Ltd., shall be the basis for the preparation of Technical specification for this project. However it is the responsibility of the Consultant for providing all the consultancy services which are required for the satisfactory and speedy establishment of 2 x 800 MW Coal based Thermal Power Project ( A CDM Project) at Udangudi . The omission of specific reference to any of the activities connected in the execution of project which is necessary for proper erection and satisfactory commissioning of the plants shall not relieve the contractor of his responsibility to provide such consultancy services to complete and commission the unit at no extra cost.

**SECTION - IV**

**ANNEXURE – I**

**SPECIFICATION NO.CEO/UPCL /Specn.No. 04 /2010-11**

**CHECKLIST OF GENERAL PARTICULARS**

**Note:** Tenderers are requested to fill in the following details and no column should be left blank.

1. Name and address of the tenderer :
2. Telegraphic/Telex address :
3. Phone no/Fax no (Office) :
4. Details about type of the firm/company :
5. Name and designation of the official of the tenderer :
6. Attested copy of the Power of Attorney as the case may be:
7. Tenderer's proposal no and date :
8. Whether EMD submitted and submission details :
9. Documents to satisfy BQR in Envelope - A :
10. No Deviation Certificate :
11. Copy of PAN Card :
12. Price bid in Envelope – B :
13. Other details required as per the specification :

Date.....

Signature of the tenderer  
(with company seal)

**ANNEXURE – II**

**SPECIFICATION NO. CEO/UPCL /Specn.No. 04 /2010-11**

**FORMAT FOR NO DEVIATION CERTIFICATE  
(To be submitted in the bidder's letter head)**

President & Chief Executive Officer,  
Udangudi Power Corporation Ltd.,  
TNEB Complex,  
144, Anna Salai,  
Chennai – 600 002.

Sub: Offering Engineering Consultancy & Owner's Engineer Services for establishing 2x800MW Udangudi Super Critical Thermal Power Project (A CDM Project) at Udangudi in Tuticorin District, Tamil Nadu - No Deviation Certificate – Reg.

Ref: 1. Tender Specification no.CEO/UPCL /Specn. No. 04 /2010-11  
2. Other references (if any).

Dear Sirs,

With reference to above, this is to confirm you that, we have not taken any deviation from tender clauses. We hereby convey our unqualified acceptance to the terms and conditions as stipulated in the tender.

In the event of observance of any deviation in any part of our offer at a later date, whether implicit or explicit, the deviations shall stand null and void.

Thanking you,

Yours faithfully,

(Signature, date & seal of authorised  
representative of the contractor)

**ANNEXURE – III**

**SPECIFICATION NO. CEO/UPCL /Specn.No. 04 /2010-11**

**FORMAT FOR SEEKING PRE BID CLARIFICATION**

**Scope of work:** Offering Engineering Consultancy & Owner's Engineer Services for establishing 2x800MW Udangudi Super Critical Thermal Power Project (A CDM Project) at Udangudi in Tuticorin District, Tamil Nadu.

Sl.No	Reference clause of tender document	Existing provision	Bidder's query	UPCL's clarification

Date.....

Signature of the tenderer  
(with company seal)

**ANNEXURE –IV**  
**BANK GUARANTEE FOR SECURITY DEPOSIT**  
**NON-JUDICIAL – Rs.80 Stamp Paper**

THIS DEED OF GUARANTEE made on this ..... day of ..... only by the Bank of .....(Bank name & address) (Hereinafter called "Bank") to and in favour of the Udangudi Power Corporation Limited a body corporate constituted having its Registered Office at Anna Salai, Chennai-2 represented by the President & Chief Executive Officer /...../...../..... (hereinafter called " The Owner").

WHETHERAS                      Messrs                      .....  
..... (herein called "The contractor") have by virtue of the contract entered into with the owner as per P.O. No. ....  
Dt..... agreed with the owner to ..... In accordance with the terms and conditions contained therein:

AND WHEREAS in accordance with the terms of the Contract in P.O. No. ....  
dt..... The contractor has to pay a sum of Rs. ..../- (Rupees  
..... only) towards security deposit from a Nationalised Bank.

AND WHEREAS the contractor has requested the owner to accept bank guarantee in lieu of security deposit for a sum equivalent to

5% (Five percent) of the value of the contract for the satisfactory performance of the contract.

AND WHEREAS the Bank has, at the request of the contractor, agreed to guarantee the payment of the said sum in case the contract is not performed in accordance with the specification indicated in the terms and conditions contained in P.O. No. .... date  
..... or in the letter .....Dt.....

NOW THIS DEED WITNESSES AS FOLLOWS:

1. In consideration of the owner having agreed to accept the Bank Guarantee from a Nationalised Bank towards security deposit for a sum equivalent to Rs..... (Rupees.....only), the Bank do hereby guarantee

that if the contractor fails to perform the contract in accordance with the specification and conditions of the contract as subsequently amended, the Bank shall pay forthwith merely on demand without and protest or demur to the Owner such amount or amounts, as the Bank may be called upon to pay by the Owner:

PROVIDED that the liability of the Bank under this deed shall not at any time exceed the said guaranteed amount of Rs...../-(Rupees ..... only)

PROVIDED further that the guarantee hereunder furnished shall be released as soon as the contractor has performed his part of the contract in accordance with the terms of the contract and the period of performance guarantee is over and a certificate to that effect is issued by the Owner.

2. The Bank further undertakes to indemnify the Owner against any loss or damage that may be caused or suffered by the Owner by reason of any breach of the term and conditions in the said P.O. No. .... dated .....

3. The guarantee herein contained shall remain in force till the terms and conditions of the P.O. No. .... dt the ..... have been fully and properly carried out by the said contractor and in any case, the guarantee shall not hold good after the .....

4. The Bank further agrees with the Owner that the Owner shall have the fullest liberty (without the consent of the Bank and without affecting in any manner the obligations of the Bank hereunder) to vary any of the terms and conditions of the contract or to extend the time of performance of the contract by the said contractor from time to time or to postpone from time to time any of the powers exercisable by the owner against the said contractor and to forbear to enforce any of the terms and conditions relating to the said contract and the Bank shall not be relieved of its liability by the reason of any such variations, or extension being granted to the reason to the said contractor or by reasons of any for-bearance, act or omission on the part of the owner or any indulgence by the owner to the said contractor or by any such matter or thing what-so- ever which under the law relating to sureties would but for these provisions have the effect of so relieving the bank.

Any account settled between the owner and the contractor shall be the conclusive evidence against the bank for the amount due and shall not be questioned by the Bank.

The expression "Bank", "Contractor" and "the Owner" herein before used shall include

their respective successors and assigns.

IN WITNESS WHERE OF Thiru. .... acting for and on behalf of the Bank has signed this deed on the day, month and year first above written.

In the presence of witnesses:

Signature  
Seal of the Bank

(Name in Block letters)

1.

2.

(Name in capitals to be subscribed with designation,  
office address or residential address)

**ANNEXURE-V**

**UNDERTAKING FOR LEGAL PROCEEDINGS JURISDICTION**

THIS DEED OF UNDERTAKING EXECUTED AT CHENNAI ON THIS THE  
..... By Messers.

hereinafter called the "TENDERER" (Which expression where the context so admits mean include their agents, Representatives, Successors – in – office and Assigns).

**TO AND IN FAVOUR OF**

The UDANGUDI POWER CORPORATION LIMITED a body corporate constituted under, having its office at NPKRR Maaligai, 144, Anna Salai Electricity Avenue, Chennai – 600 002, hereinafter called the "Corporation" (Which expression shall where the context so admits mean and include the successors in – office and assigns).

WHEREAS the Corporation has called for acceptance of jurisdiction of legal proceedings.

NOW THIS UNDERTAKING WITNESSETH that no suit or any proceedings in regard in any matter arising in any respect under this contract shall be instituted in any court, save in appropriate Civil court of Chennai or the court of small causes Chennai. It is agreed that no other court shall have the jurisdiction to entertain any suit or proceedings, eventhough, part of the cause of action might arise within their jurisdiction. In case, any part of cause of action might arises within the jurisdiction of any of the courts in Tamil Nadu and not in the courts in Chennai City, then it is agreed between parties that such suits or proceedings shall be instituted in court within Tamil Nadu and no other court outside Tamil Nadu shall have jurisdiction, eventhough any part of the cause of action might arise within the jurisdiction of such

IN WITNESS WHERE OF acting for and on behalf of the Tenderer has signed this deed in the day, month and year herein before first mentioned.

SIGNATURE OF THE TENDERER.

NAME :

DESIGNATION :

DATE :

COMPANY SEAL :

## SECTION - V

SPECIFICATION NO: CEO/UPCL/Specn No. 04 /2010-2011

### PRICE OFFERS - EVALUATION AND COMPARISON

#### PREAMBLE:

This preamble forms part of price schedule. The tenderer should read this preamble carefully before quoting the rates for various items. Clauses under this preamble shall be read in conjunction with various sections of tender with subsequent changes / modifications, etc. there to as applicable as on date of submission of offer.

- 1) The evaluation shall include contract value of works with applicable sales/service tax, etc.,
- 2) Rate shall be quoted in figures and in words in clear legible writing. In case of discrepancy between the prices quoted in words and in figures, the lower of the two shall be considered.
- 3) Arithmetical Errors if any may be corrected before evaluation.
- 4) The evaluation will be on the total amount quoted for all the works.
- 5) For any techno commercial deviation having financial implications, appropriate loading on price for evaluation purpose will be made at the discretion of UPCL.
- 6) UPCL Engineer's decision shall be final and binding on the contractor regarding clarification of items in the schedule with respect to the other sections of the contract.

**PRICE SCHEDULE**

**SPECIFICATION NO.CEO/UPCL /Specn.No. 04/2010-11**

**NAME OF WORK** : OFFERING ENGINEERING CONSULTANCY & OWNER'S ENGINEER SERVICES FOR ESTABLISHING 2X800MW UDANGUDI SUPER CRITICAL THERMAL POWER PROJECT (A CDM PROJECT) IN TUTICORIN DIST, TAMIL NADU.

Sl.No.	Description	Prices in Indian Rupees. (Both figures and words)
I.	<b>Preparation of Tender specification</b> Lumpsum Charges for Preparation of tender specification documents for BoP in single package (20) copies with one soft copy for Establishing 2 x 800 MW coal based super critical thermal power project at Udangudi excluding the main plant package.	
II	<b>Pre Contract services</b> a) Lumpsum charges for attending pre bid meeting of the tender for BoP under single EPCC package.	
	b) Lumpsum charges for furnishing reply to the queries raised by the bidders to UPCL and modification of specification if necessary.	
	c) Lumpsum charges for assisting UPCL in evaluation of techno-commercial bid and price bids & attending price negotiation meeting with the prospective tenderer, suggesting UPCL for award of contract and Preparing contract documents for the packages. i) For main plant package ii) For Balance of Plant package	

III	<b>POST CONTRACT SERVICES FOR ALL PACKAGES :</b>			
	<p>a) Lumpsum charges for Review of Engineering documents and scrutinizing the Quality Assurance Plan, Drawings and Design basis reports to be supplied by the contractors and recommending to UPCL for approval, assisting UPCL in the equipments sizing and selection, selection of sub-vendors / sub contractors, etc., of the packages for approval by UPCL.</p> <p>i) For main plant package</p> <p>ii) For Balance of Plant package</p>			
	<p>b) Lumpsum charges for attending co-ordination meeting by a team consisting three members with contractors and UPCL (inclusive of accommodation, boarding, to &amp; fro travel expenses and local conveyance charges) as and when required during the execution of contract till commissioning of the Unit. Approximately 50 meetings (the meeting may be for one day) have been envisaged during the contract period. Most of these meetings will be held in Chennai or at site.</p> <p><b><u>If the meeting is extended, man day rate alone will be paid extra for the additional days. (Man day rate without to &amp; fro charges shall be indicated separately in the description column itself and this will not be taken for Evaluation)</u></b></p> <p><b><u>Man day rate for additional day of co-ordination meeting – Rs..... /-</u></b></p>	Rate / meeting	No. of meetings	Amount
			50	

	c) Lumpsum charges for attending technical discussion meeting by a team consisting three members of different discipline with contractors and UPCL (inclusive of accommodation, boarding, travel and local conveyance charges) as and when required during the execution of contract till commissioning of the Unit. Approximately 60 meetings (the meeting may be for one day) have been envisaged during the contract period. Most of these meetings will be held in Chennai or at site. Sometimes, the meeting may also be held in any one of the unit of BHEL or any vendor in India. Rate shall be quoted per meeting including travel expenses and assuming one day for the meeting.	Rate / meeting	No. of meetings	Amount
	<p><i><u>If the meeting is extended, man day rate alone will be paid extra for the additional days. (Man day rate without to &amp; fro charges shall be indicated separately in the description column itself and this will not be taken for Evaluation)</u></i></p> <p><i><u>Man day rate for additional day of technical discussion meeting - Rs...../-</u></i></p>		60	
	d) Lumpsum charges for carrying out pre-inspection at vendors premises within India by experts for selective critical equipments as requested by UPCL etc. Man-day rate inclusive of to & fro travel expenses, boarding, lodging and local conveyance charges shall be quoted. (Approximately 30	Rate / Inspection	No. of Inspection	Amount
			30	

	<p>inspections are envisaged). Rate shall be quoted per inspection including travel expenses and assuming one day for the inspection.</p> <p><b><u>If the inspection is extended, man day rate alone will be paid extra for the additional days. (Man day rate without to &amp; fro charges shall be indicated separately in the description column itself and this will not be taken for Evaluation).</u></b></p> <p><b><u>Man day rate for additional day of inspection – Rs..... /-</u></b></p>			
	<p>e) Lumpsum charges for posting Engineering Team considering the scope of Site Management Service (inclusive of accommodation, boarding, conveyance and all other facilities required) for coordination and monitoring the quality / the progress of works till commissioning of the Unit. (Man months for different Engineering discipline shall be provided as per UPCL requirement of totally 318 man months as furnished in Clause 3.13.2).</p> <p><b><u>In case of engaging more than 318 man months which is not attributable to the Bidder, man month rate will be paid extra for the additional man months. (Man month rate for different level shall be indicated separately in the description column itself and this will not be taken for Evaluation).</u></b></p> <p><b><u>i. Man-month rate for Senior Level</u></b></p>			

	<u>Engineer Rs...../-.</u> <u>ii. Man-month rate for Middle Level</u> <u>Engineer Rs...../-.</u> <u>iii. Man-month rate for Junior Level</u> <u>Engineer Rs...../-.</u>	
	f) Lumpsum charges for witnessing the PG test of the plant and analyzing the PG test report and recommending to UPCL for approval. (Inclusive of traveling to site, boarding, lodging and local travel expenses shall be quoted).	
IV	Service tax on item I – III if any applicable	
	Total value of the contract in Indian Rupees.	

SIGNATURE :  
NAME :  
DESIGNATION :  
DATE :  
PLACE :  
SEAL :

Note: The fee of the consultant for any deputation / discussion / inspection in foreign country shall be paid for the actual travelling expenses such as to & fro fare, Boarding, Lodging and Local conveyance in addition to the man day rate against III (d) of the schedule (i.e., Man day rate for additional day of inspection).