



PRE-QUALIFYING REQUIREMENTS
(TECHNICAL)
INDUCED DRFT COOLING TOWER
(IDCT)

DOC NO: PE-TS-508-165-W001

REV NO: 00 DATE: 27/02/2024

SHEET: 1 of 2

PROJECT: 2X800 MW LARA STPP STAGE-II

4.3.1 The bidder/ its sub-vendor should have designed, constructed and commissioned at least one (01) number Induced Draught Cooling Tower in RCC or Pultruded Fiberglass Reinforced Plastic (FRP) Construction of capacity not less than 13000 m³/hr which should have been in successful operation for atleast one (1) year.

The reference Cooling Towers should be of the same type i.e. counter flow or cross flow as is being offered by the Bidder/ its sub-vendor and of the same construction type i.e. RCC construction or FRP construction as being offered by the Bidder/ its sub-vendor.

In case the reference cooling tower was designed by a party other than the Bidder /its sub vendor, the Bidder/ its sub vendor shall employ a cooling tower designer, who has independently designed an Induced Draught Cooling Tower of same type as being offered of capacity not less than 13,000 Cu.M/Hr in RCC or Pultruded Fiberglass Reinforced Plastic (FRP) construction and which should have been in successful operation for at least one(1) year.

Further, if such designer has not carried out the engineering activities by itself in respect of the system of the reference installation against which the designer is seeking the qualification, then the engineering of the package shall be carried out by an Engineering firm who should have engineered an Induced Draught Cooling Tower of same type & construction as being offered of capacity not less than 13,000 Cu.M/Hr in RCC or Pultruded Fiberglass Reinforced Plastic (FRP) construction and which should have been in successful operation for at least one(1) year.

In such a case, the Bidder shall be required to furnish a letter of technical support from the Cooling Tower Designer and Engineering firm (as applicable) for successful performance of Cooling Tower system, as per the format enclosed in the bidding document. This letter of technical support should be submitted to Employer prior to the placement of order on approved sub vendor.

OR

4.3.2 The Bidder/ its sub-vendor should be a wholly or partially (with minimum 51% holding) held Indian subsidiary of a firm who in turn meets the requirements of clause 4.3.1 above. Further, the Bidder/ its sub-vendor on its own or alongwith its holding company should have executed/ be executing atleast one contract involving design, construction and commissioning of atleast one (1) number Induced Draft Cooling Tower in RCC/ Pultruded Fiberglass Reinforced Plastic (FRP) Construction of capacity not less than 6500m³/hr.

In such a case, the Bidder/its sub-vendor should furnish a letter of technical support from Holding Company (i.e. the firm meeting requirements of clause 4.3.1 above) for successful performance of the Cooling Towers as per format enclosed in bidding documents. This Letter of Technical Support should be submitted to employer prior to the placement of order on approved sub-vendor.

PREPARED BY:

**NAME:
DESIGNATION / DEPT.:**

REVIEWED BY:

**NAME:
DESIGNATION / DEPT.:**

APPROVED BY:

**NAME:
DESIGNATION / DEPT.:**



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SHEET: 2 of 2

OR

4.3.3 The Bidder/ its sub-vendor who has independently constructed RCC cooling towers can also participate alongwith it's Holding company/Collaborator/Associate who in turn meets the requirements of clause 4.3.1 above.

In such a case, the Bidder shall be required to furnish a Deed of Joint Undertaking executed by the Bidder/sub-vendor and it's Holding company/Collaborator/Associate for the successful performance of Cooling Tower, as per the format enclosed with the bidding documents. The Deed of Joint Undertaking (DJU) shall be submitted at the time of placement of order on the approved sub-vendor. In case of award, Bidder/sub-vendor and it's Holding company/Collaborator/Associate shall each be required to furnish an ondemand bank guarantee for INR 40 million (Forty Million only) in addition to the contract performance security to be furnished by the bidder.

General notes of the PQR are as under:

1. Bidder to submit supporting documents in English. If documents submitted by bidder are in language other than English, a self-attested English translated document should also be submitted.
2. Notwithstanding anything stated above, BHEL/Customer reserves the right to assess the capabilities and capacity of the bidder to perform the contract, should the circumstances warrant such assessment in overall interest of BHEL/Customer.
3. Consideration of offer shall be subject to customer's approval of bidder.
4. After satisfactory fulfilment of all the above criteria/ requirement, offer shall be considered for further evaluation as per NIT and all other terms of the tender.

PREPARED BY:

**NAME:
DESIGNATION / DEPT.:**

REVIEWED BY:

**NAME:
DESIGNATION / DEPT.:**

APPROVED BY:

**NAME:
DESIGNATION / DEPT.:**

PROVENNESS OF induced draft COOLING TOWER

I. (A) Details of Induced draught Cooling Towers (as per clause 4.3.1of Sub-Section-IA, Part-A, Section-VI of Bidding Documents

In support of Sub-Qualifying Requirements of Clause 4.3.1 of Sub-Section-IA, Part-A, Section-VI of Bidding Document, we confirm that We/our Sub-vendor have designed, constructed and commissioned at least one (01) number Induced Draught Cooling Tower in RCC or Pultruded Fiberglass Reinforced Plastic(FRP) Construction of capacity not less than 13000m3/hr which has been in successful operation for atleast one year(1) prior to the date of Techno-commercial bid opening.

The reference Cooling Towers are of the same type i.e. counter flow or cross flow as is being offered and of the same construction type i.e. RCC construction or FRP construction as being offered by us.

We shall furnish a letter of technical support from our cooling tower designer/ Engineering firm (as applicable) for the satisfactory performance of Cooling Towers as per the format enclosed in the bidding document before placement of award of Cooling Tower.

The details of the reference cooling tower is furnished below:

Sl. No.	Description/Details	Plant
1.	Description of Work and Name of Client	.....
2.	Location/Address of the Plant/works	.....
3.	Address of the Client (including Contact Person Name, Telephone No, e-mail etc.)	.....
4.	No. of Cooling Towers	.....
5.	Capacity of each Cooling Tower (Cu.M/hr.)	.....
6.	Type of Fill (splash/modular/trickle type)	.....
7.	Type of Construction	.....
8.	Whether scope of works included	
	(a) Design of Cooling Towers by Bidder/its Sub-vendor	YES*/NO*

- | | | |
|-----|--|------------|
| (b) | Construction of Cooling towers | YES*/NO* |
| (c) | Commissioning of Cooling towers | YES*/NO* |
| 9. | Date of Commissioning of the Cooling tower | |
| 10. | Certificate from client to substantiate Bidder's QR data is enclosed at Annexure to this Attachment-3K | YES*/NO* |
| 11. | Whether the reference cooling tower at sl. No. 1 is designed by the bidder/ sub vendor | YES*/NO* |
| 12. | Whether the reference cooling tower at sl. No. 1 is designed by party other than bidder/ sub vendor | YES*/NO* |
| 13. | Name of the party who has designed reference cooling tower | |
| 14. | Whether the reference cooling tower at sl. No. 1 is engineered by designer | YES*/NO* |
| 15. | Name of the Engineering firm who has engineered reference cooling tower | |
| 14. | Whether Documentary evidence/ certificate(s) from client enclosed for the above data | Yes* / No* |

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- * Strike off whichever is not applicable.

Date : (Signature).....

Place : (Printed Name).....

(Designation).....

(Common Seal).....

(Bidder / Sub-vendor)

I. (B) Details of Induced draught Cooling Towers (as per clause 4.3.2 of Sub-Section-IA, Part-A, Section-VI of Bidding Documents)

In support of Sub-Qualifying Requirements of Clause 4.3.2 of Sub-Section-IA, Part-A, Section-VI of Bidding Document, we confirm that We are a wholly or partially (with minimum 51% holding) held Indian subsidiary of a firm who fulfills the requirements in Clause 4.3.1 of Sub-Section-IA, Part-A, Section-VI of Bidding Documents. We , on our own/ alongwith our holding company have executed/ are executing atleast one contract involving design, construction and commissioning of atleast one(1) number Induced Draft Cooling Tower in RCC/ Pultruded Fiberglass Reinforced Plastic (FRP) Construction of capacity not less than 6500m3/hr.

We shall furnish a letter of technical support from our Holding Company for the satisfactory performance of Cooling Towers as per the format enclosed in the bidding document before placement of award of Cooling Tower.

The details of the reference cooling tower is furnished below:

Sl. No.	Description/Details	Plant
1.	Description of Work and Name of Client	.....
2.	Location/Address of the Plant/works	.....
3.	Address of the Client (including Contact Person Name, Telephone No, e-mail etc.)	.....
4.	No. of Cooling Towers	.....
5.	Capacity of each Cooling Tower (Cu.M/hr.)	.....
6.	Type of Fill (Other than splash/modular/trickle type) Bidder to Specify the type of fill	.....
7.	Type of Construction	.....
8.	Whether scope of works included	
	(a) Design of Cooling Towers by Bidder/its Sub-vendor associate/Collaborator	YES*/NO*
	(Name of Designer)	.....
	(b) Construction of	YES*/NO*

Cooling towers

- (c) Commissioning of Cooling towers YES*/NO*
9. Date of Commissioning of the Cooling tower
10. Certificate from client to substantiate Bidder's QR data is enclosed at Annexure to this Attachment-3K YES*/NO*
11. Whether the reference cooling tower at sl. No. 1 is designed by the bidder/ sub vendor YES*/NO*
12. Whether the reference cooling tower at sl. No. 1 is designed by Sub-vendor's own engineers YES*/NO*
13. Whether Documentary evidence/ certificate(s) from client enclosed for the above data Yes* / No*

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- * Strike off whichever is not applicable.

Date : (Signature).....

Place : (Printed Name).....

(Designation).....
(Common Seal).....

Date : (Signature).....

Place : (Printed Name).....

(Bidder / Sub vendor / Associate/ Collaborator)

I. (C) Details of Induced draught Cooling Towers (as per clause 4.3.3 of Sub-Section-IA, Part-A, Section-VI of Bidding Documents)

In support of Sub-Qualifying Requirements of Clause 4.3.3 of Sub-Section-IA, Part-A, Section-VI of Bidding Document, we confirm that We/our Sub-vendor have independently constructed RCC cooling towers and our Holding company/Collaborator/Associate fulfills the requirements in Clause 4.3.1 of Sub-Section-IA, Part-A, Section-VI of Bidding Documents.

We shall furnish a Deed of Joint Undertaking executed by us/ our sub-vendor and Holding company/Collaborator/Associate for the successful performance of Cooling Tower, as per the format enclosed with the bidding documents. The Deed of Joint Undertaking (DJU) shall be submitted along with on demand bank-guarantee at the time of placement of order on the approved sub-vendor.

The details of the reference cooling tower is furnished below:

-- SI. No.	Description/Details	Plant
1.	Description of Work and Name of Client	.....
2.	Location/Address of the Plant/works	.....
3.	Address of the Client (including Contact Person Name, Telephone No, e-mail etc.)	.....
4.	No. of Cooling Towers	.....
5.	Type of Construction	.....
6.	Details of ref cooling tower of Holding company /Collaborator / Associate as per clause 4.3.1	
7.	Documentary evidence / Certificate from client to substantiate Bidder's QR data is enclosed at Annexure to this Attachment-3K	YES*/NO*

● * Strike off whichever is not applicable.

Date : (Signature).....

Place : (Printed Name).....

(Designation).....

(Common Seal)

(Bidder / Sub-vendor)

LETTER OF SUPPORT FOR SATISFACTORY PERFORMANCE OF COOLING TOWER

TO

[EMPLOYER'S NAME & ADDRESS]

Sub: Letter of Technical Support submitted From (name of the Associate*/ Collaborator*/Holding Company*/Designer*/ Engineering Firm*) undertaking the responsibility for satisfactory performance of(Name of the equipment/system*).

Dear Sirs,

1. In accordance with the Award of the Contract by (Name of the Contractor) to M/s. (Name of the sub-vendor), we, the aforesaid Associate*/Collaborator*/Holding Company*/ Designer*/ Engineering Firm*, (M/s) shall be fully responsible for the satisfactory performance of the(Name of the equipment/system*).
2. Further, the manner of achieving the objective set forth in point 1 above shall be as follows
For (Name of the equipment/system*):
 - (a) We shall be fully responsible for design, engineering, commissioning (as applicable) and extending all necessary support for putting in to satisfactory operation and carrying out the Guarantee Tests (If applicable) for(Name of the equipment/system*) to the satisfaction of the Employer.
 - (b) We shall depute technical experts for supervision during inspection, site erection, commissioning and final testing (as and when necessary) of the.....(Name of the equipment/system*).
 - (c) We shall participate in Technical Co-ordination meetings (TCMs) from time to time, as and when required by Employer.
 - (d) We shall promptly carry out all the corrective measures and shall promptly provide corrected design and shall undertake replacements, rectifications or modifications to the equipment/system* as and when required by Employer in case the equipment/system* fails to demonstrate successful performance as per contract at site.
3. We, the Associate*/Collaborator/Holding company*/Designer*/ Engineering firm* do hereby undertake and confirm that this Letter of Technical Support shall be valid for a period up to the end of defect liability period of the contract.

Signature of the Authorised Representative:.....

For M/s

(Associate*/Collaborator*/Holding company*/ Designer*/ Engineering Firm*)

Name

Designation

Date:.....

Common Seal of the Company

***: Strike off whichever is not applicable.**

**FORM OF DEED OF JOINT UNDERTAKING TO BE PROVIDED
FOR INDUCED DRAFT COOLING TOWER AS PER CLAUSE 4.3 OF
TECHNICAL SPECIFICATIONS (SECTION -VI PART-A SUB-SECTION-IA)**

(ON NON-JUDICIAL STAMP PAPER OF APPROPRIATE VALUE)

**DEED OF JOINT UNDERTAKING TO BE EXECUTED BY BIDDER/SUB VENDOR AND ITS
HOLDING COMPANY/COLLABORATOR/ASSOCIATE FOR SUCCESSFUL
PERFORMANCE OF COOLING TOWER MEETING THE REQUIREMENTS STIPULATED
IN THE TECHNICAL SPECIFICATION.**

The DEED OF JOINT UNDERTAKING executed thisday ofTwo thousand by M/s (BIDDER/SUB VENDOR)..... (hereinafter called the BIDDER/SUB VENDOR, which expression shall include its successors, administrators, executors and permitted assigns) AND

The DEED OF JOINT UNDERTAKING executed thisday ofTwo thousand by M/s (**HOLDING COMPANY/COLLABORATOR/ASSOCIATE**) a Company incorporated underhaving its Registered Office at (hereinafter called the **HOLDING COMPANY/COLLABORATOR/ASSOCIATE**, which expression shall include its successors, administrators, executors and permitted assigns) AND

in favour of, having its Registered Office at NTPC Bhawan, Scope Complex, 7, Institutional Area, Lodhi Road, New Delhi-110003 INDIA ("Employer" which expression shall include its successors, administrators, executors and assigns).

WHEREAS, the Employer invited Bids for design, engineering, manufacture, supply, transportation to site, construction, installation, testing, commissioning and conductance of guarantee tests for the EPC Package for ----- TPP (hereinafter referred to as "Plant") vide its Bidding Document No. -----, which interalia include Cooling tower(s).

WHEREAS M/S ----- (Bidder) has submitted its proposal in response to the aforesaid invitation for Bid by the Employer for EPC package for -----TPP against the employer's bidding documents no. ----- interalia including design, engineering, manufacturing, supply, transportation to site, installation, testing and commissioning (including trial operation and performance and guarantee test) of cooling tower(s).

AND WHEREAS vide clause 4.3.3 of TECHNICAL SPECIFICATIONS (SECTION-VI, PART-A, SUB-SECTION-IA), it has been specified that bidder/ sub-vendor who has independently constructed RCC cooling towers can also participate alongwith it's Holding company/Collaborator/Associate who in turn meets the requirements of clause 4.3.1 of TECHNICAL SPECIFICATIONS (SECTION-VI, PART-A, SUB-SECTION-IA).

NOW THEREFORE, THIS DEED WITNESSETH AS UNDER:

1. We the bidder/sub vendor and our Holding company/Collaborator/Associate, do hereby declare and undertake that we shall be jointly and severally responsible to the Employer for the successful performance of the Cooling tower(s).

2. In case of any breach of the Contract by the contractor /its sub-vendor, we the Holding company/ Collaborator / Associate do hereby undertake, declare and confirm that we shall be fully responsible for the successful performance of the cooling tower(s) and undertake to carryout all the obligations and responsibilities under this Deed of Joint Undertaking in order to discharge the bidder/sub vendor obligations stipulated under the Contract. Further, if the Employer sustains any loss or damage on account of any breach of the Contract for the cooling tower , we undertake to promptly indemnify and pay such loss/damages caused to the Employer on its written demand without any demur, reservation, Contest or protest in any manner whatsoever. This is without prejudice to any rights of the Employer against the bidder/sub vendor under the Contract and/or guarantees. It shall not be necessary or obligatory for the Employer to first proceed against the bidder/sub vendor before proceeding against the Holding company/ Collaborator / Associate nor any extension of time or any relaxation given by the Employer to the bidder/sub vendor shall prejudice any rights of the Employer under this Deed of Joint Undertaking to proceed against the Holding company/ Collaborator / Associate. The liability of the contractor, his sub-vendor and the Holding company/ Collaborator / Associate shall be limited to an amount equal to 100% of the value of the contract** between the contractor and the sub supplier for the equipments/systems.

3. Without prejudice to the generality of the Undertaking in paragraph 1 above, the manner of achieving the objective set forth in paragraph 1 above shall be as follows:

(a) We, Holding company/ Collaborator / Associate shall ensure that complete design, manufacturing, quality assurance and installation of the cooling towe(s) is carried out inline with drawings and procedures and shall be fully responsible for its compliance so as to ensure satisfactory, reliable, safe and trouble free performance of cooling tower(s) .

Further, we, Holding company/ Collaborator / Associate shall extend our quality surveillance / supervision / quality control to the bidder / sub vendor during Design, engineering, erection, commissioning and performance testing of cooling tower(s).

Further, Holding company/ Collaborator / Associate shall depute their technical experts from time to time to the bidder / sub vendor works / Employer's project site as required by the Employer and agreed to by bidder / sub vendor to facilitate the successful performance of the cooling tower(s) as stipulated in the aforesaid Contract.

Further, Holding company/ Collaborator / Associate shall ensure proper design, manufacture installation, testing and successful performance of the cooling tower under the said contract in accordance with stipulations of Bidding Documents and if necessary, Holding company/ Collaborator / Associate shall advise the bidder/sub vendor suitable modifications of design and implement necessary corrective measures to discharge the obligations under the contract.

(b) In the event the bidder/sub vendor fail to demonstrate that the cooling tower(s) meet the guaranteed parameters and demonstration parameters as specified in the contract, Holding company/ Collaborator / Associate shall promptly carry out all the corrective measures related to engineering services at their own expense and shall promptly provide corrected design to the Employer.

- (c) Implementation of the corrected design and all other necessary repairs, replacements, rectification or modifications to the cooling tower(s) and payment of financial liabilities and penalties and fulfillment of all other contractual obligations as provided under the contract shall be the joint and several responsibility of the bidder/sub vendor and Holding company/ Collaborator / Associate.
4. We, the contractor/sub vendor and Holding company/ Collaborator / Associate do hereby undertake and confirm that this Undertaking shall be irrevocable and shall not be revoked till ninety (90) days after the end of the defect liability period of the last equipment covered under the Contract and further stipulate that the Undertaking herein contained shall terminate after ninety (90) days of satisfactory completion of such defect liability period. In case of delay in completion of defect liability period, the validity of this Deed of Joint Undertaking shall be extended by such period of delay. We further agree that this Undertaking shall be without any prejudice to the various liabilities of the Contractor including Contract Performance Security as well as other obligations of the Contractor in terms of the Contract.
 5. The Contractor/sub vendor will be fully responsible for the quality of all the equipment/main assemblies/components manufactured at their works or at their Vendors' works or constructed at site, and their repair or replacement, if necessary, for incorporation in the Plant and timely delivery thereof to meet the completion schedule under the Contract.
 6. In case of Award, in addition to the Contract Performance Security for the contract, the Holding company/ Collaborator / Associate shall furnish 'as security' an on demand Performance Bank Guarantee in favour of the Employer as per provisions of the bidding documents. The value of such Bank Guarantee shall be equal to **INR 40 Million (Indian Rupees Forty Million only)** and it shall be guarantee towards the faithful performance /compliance of this Deed of Joint Undertaking in accordance with the terms and conditions specified herein. The bank guarantee shall be unconditional, irrevocable and valid till ninety (90) days beyond the end of defect liability period of the last equipment covered under the Contract. In case of delay in completion of the defect liability period, the validity of this Bank Guarantee shall be extended by the period of such delay. The guarantee amount shall be promptly paid to the Employer on demand without any demur, reservation, protest or contest.
 7. Any dispute that may arise in connection with this Deed of Joint Undertaking shall be settled as per arbitration procedure/rules mentioned in the Contract Documents. This Deed of Joint Undertaking shall be construed and interpreted in accordance with the Laws of India and the Courts of Delhi shall have exclusive jurisdiction.
 8. We, Holding company/ Collaborator / Associate and contractor /sub vendor agree that this Undertaking shall form an integral part of the Contracts from the date of signing of this Deed of Joint Undertaking. We further agree that this Undertaking shall continue to be enforceable till its validity.
 9. That this Deed of Joint Undertaking shall be operative from the effective date of signing of this Deed of Joint Undertaking.

IN WITNESS WHEREOF, Holding company/ Collaborator / Associate and contractor / sub vendor through their authorised representatives, have executed these presents and affixed common seal of their respective companies, on the day, month and year first mentioned above.

1. WITNESS For M/s
.....
(Holding company/ Collaborator / Associate)

.....
(Signature Name)
Representative).....
(Signature of the Authorised

.....
Name.....
(Official Address)

Designation.....

Common Seal of the

Company.....

1. WITNESS For M/s
.....
(*sub vendor)

.....
(Signature Name)
Representative).....
(Signature of the Authorised

.....
Name.....
(Official Address)

Designation.....

Common Seal of the

Company.....

1. WITNESS For M/s
.....
(Bidder/Contractor)

.....
(Signature Name)
Representative).....
(Signature of the Authorised

.....
Name.....
(Official Address)

Designation.....

Common Seal of the

Company.....

1. WITNESS

.....

company)

.....
(Signature Name)
Representative).....

.....
Name.....
(Official Address)

Designation.....

For M/s

(JV company/Subsidiary

(Signature of the Authorised

Common Seal of the

Company.....

Note :

- 1) **Power of Attorney of the executants of this DJU is to be furnished.**
- 2) *** Strike out, whichever is not applicable.**
- 3) **** Copy of priced purchase order for the equipment shall be furnished by Bidder.**