



PRE-QUALIFYING REQUIREMENTS
(TECHNICAL)
NATURAL DRAFT COOLING TOWER
(NDCT)

DOC NO: PE-TS-510-165-W001

REV NO: 01 DATE: 05.09.2025

SHEET: 1 of 2

ENQUIRY NO.:

PROJECT: 1 X 800 MW HPGCL DCRTTPP YAMUNA NAGAR

1.0 to 4.4.1 BLANK

4.4.2 Natural Draught Cooling Tower

4.4.2.1 Bidder should have designed, constructed and commissioned at least one (1) number Natural Draught Cooling Tower (NDCT) in RCC Construction with cooling water flow not less than 25,000 m³/hr which should have been in successful operation for at least one (1) year as on 20/03/2025.

4.4.2.2 In case the reference NDCT has been designed by a party other than the bidder, the bidder shall collaborate with a design agency, which has independently designed a NDCT of capacity not less than 25,000m³/hr in RCC construction and which should have been in successful operation for at least one (1) year as on 20/03/2025.

For Clause 4.4.2.2, the Bidder shall be required to furnish a Deed of Joint Undertaking (DJU) jointly executed by the Bidder and the Collaborator/ Associate and each executant of DJU shall be jointly and severally liable to the Owner for successful performance of the relevant system, as per the format to be provided at the time of placement of order. The Deed of Joint Undertaking (DJU) should be submitted at the time of placement of order on approved vendor. In such a case, the Collaborator/Associate shall be required to furnish an on-demand bank guarantee of INR 10 Million (Rupees Ten Million) for the Collaborator/ Associate of Natural Draught Cooling Tower.

OR

4.4.2.3 Bidder who does not meet the requirements under clauses 4.4.2.1 & 4.4.2.2, can also participate in collaboration/association with a firm who fully meets the requirements at clauses 4.4.2.1 & 4.4.2.2, provided the Bidder has executed projects involving RCC works of tall structures of minimum height of 100m using slip/jump form shuttering.

In such a case, the Bidder shall be required to furnish a Deed of Joint Undertaking executed by the Bidder and its Collaborator/Associate for the successful performance of Cooling Tower, as per the format to be provided at the time of placement of order. The Deed of Joint Undertaking (DJU) shall be submitted before placement of order. In case of award, Bidder and Collaborator/Associate shall each be required to furnish an on-demand bank guarantee for INR 65 million (Sixty-Five 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.

PREPARED BY:

**NAME:
DESIGNATION / DEPT.:**

REVIEWED BY:

**NAME:
DESIGNATION / DEPT.:**

APPROVED BY:

**NAME:
DESIGNATION / DEPT.:**



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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.:**

FORM OF DEED OF JOINT UNDERTAKING
(ON NON-JUDICIAL STAMP PAPER OF APPROPRIATE VALUE)

DEED OF JOINT UNDERTAKING TO BE EXECUTED BY EPC CONTRACTOR
M/s BHARAT HEAVY ELECTRICALS LIMITED (BHEL)
ALONGWITH THE SUB- VENDOR/COLLABORATOR/ASSOCIATE
M/S _____
FOR
NATURAL DRAUGHT COOLING TOWER ALONGWITH ASSOCIATED AUXILLARIES
FOR
1 X 800 MW ULTRA SUPERCRITICAL UNIT AT DEEN BANDHU CHHOTU RAM THERMAL
POWER PLANT
YAMUNA NAGAR, HARYANA, INDIA
(AS PER PROVENNESS CRITERIA LAID DOWN IN NIT PROVISIONS & CORRIGENDA)

This DEED of JOINT UNDERTAKING ('DJU') executed this..... day of
.....
Two Thousand..... by:-

M/s BHEL, a Company registered under thehaving its
Registered Office at(hereinafter called the "EPC Contractor" or
"Contractor", which expression shall include its successors, legal hires, administrators,
executors and permitted assigns)

A N D

M/s..... a company incorporated under the having
its registered office at..... (hereinafter called the "Sub- Vendor", which
expression shall include its successors, legal hires, administrators, executors and
permitted assigns)

AND/ OR

M/s..... a company incorporated under the
having its registered office at..... (hereinafter called the
"Collaborator/ Associate", which expression shall include its successors, legal
hires, administrators, executors and permitted assigns)

IN FAVOUR OF

Haryana Power Generation Corporation Limited, incorporated under the Companies Act
1956, having its registered office at Urja Bhawan, Sector – 6, Panchkula, Haryana -
134109, INDIA (hereinafter called "HPGCL" or "Employer" which expression shall
include its successors, legal hires, administrators, executors and assigns).

WHEREAS, the Employer invited Bids for design, engineering, manufacture, supply,
transportation to site, installation, erection, testing, commissioning, Trial Operation and
carrying out Performance Guarantee / Demonstration tests for 1x800 MW Ultra
Supercritical Expansion Unit at Deen Bandhu Chhotu Ram Thermal Power Plant, Yamuna
Nagar, Haryana, India (hereinafter referred to as "Plant") as specified in its Bidding
Document No. 03/HPGCL/DCRTPP/EPC/800 MW dated 16.01.2023 and Employer has
awarded the work to EPC Contractor vide revised Letter of Intent ('LOI') dated 20.03.2025
and Purchase Order and Work order ('WO') dated 21.03.2025 and Contract Agreements
dated 24.03.2025 resulting into a legal binding contract.

WHEREAS, Clause 4.4.2, Chapter-4.0: Provenness, Volume II of Bidding Document (as
amended vide Corrigendum-10 dated 12.10.2023) regarding Natural Draught Cooling
Tower Package for its 1x800 MW Ultra Supercritical Expansion Unit at Deen Bandhu
Chhotu Ram Thermal Power Plant, Yamuna Nagar, Haryana stipulates that bidding is
open to a bidder who meets the requirements stipulated in Clause 4.4.2.1 (sub-clause
4.4.2) of Item 4.0 of Provenness and/or in collaboration with a firm who in turn fully meet
the stipulated requirements as per Clause 4.4.2.2 (sub-clause 4.4.2) of Item 4.0 of
Provenness of Bidding Document (as amended vide Corrigendum-10 dated 12.10.2023).

WHEREAS in the case the EPC contractor intends to execute work of Natural Draught

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Cooling Tower Package in collaboration with Sub-Vendor/Collaborator / Associate who in turn fully meet the stipulated requirements as per Clause 4.4.2.2(sub-clause 4.4.2) of Item 4.0 of Provenness of Bidding Document (as amended vide Corrigendum-10 dated 12.10.2023), the bidder, Sub-Vendor and/or the Collaborator/Associate are required to jointly execute and furnish an irrevocable Deed of Joint Undertaking that they shall be held jointly and severally responsible and bound unto the Employer for successful design, execution, completion and performance of the Natural Draught Cooling Tower for 1x800 MW Deen Bandhu Chhotu Ram Thermal Power Plant, Yamuna Nagar, Haryana, India fully meeting the parameters guaranteed parameters as per the Bidding Documents, in the event the Bid is accepted by the Employer resulting in a Contract (hereinafter called the "Contract").

AND WHEREAS M/s.....(Bidder) and/or M/s.....(Sub-Vendor) himself does not meet the requirements of clause no. 4.4.2.1 (sub-clause 4.4.2), of item 4.0 of Provenness of Bidding Document (as amended vide Corrigendum-10 dated 12.10.2023) and hence desires to collaborate/ associate with M/s (hereinafter referred to as Collaborator/ Associate):

Which has independently designed a NDCT of capacity not less than 25000 M³/hr. in RCC Construction and which should have been in successful operation for at least one (1) year prior to the date of issue of letter of award.

WHEREAS M/s..... (Bidder) himself and/or M/s.....(Sub-Vendor) does not meet the requirements of clause no. 4.4.2.1 (sub-clause 4.4.2), item 4.0 of Provenness of Bidding Document (as amended vide Corrigendum-10 dated 12.10.2023) and has Collaborated/ Associated with M/s..... (Name & Address of Collaborator for design agency) vide Deed of Joint Undertaking dated for successful performance of **Natural Draught Cooling Tower** along-with associated auxiliaries to be designed, manufactured, supplied, installed, erected, commissioned and tested under the Natural Draught Cooling Tower for 1x800 MW Ultra Super Critical Expansion Unit at Deen Bandhu Chhotu Ram Thermal Power Plant, Yamuna Nagar, Haryana, India.

WHEREAS M/s is submitting its proposal in response to the aforesaid Invitation for Bid to the Employer for Natural Draught Cooling Tower Package for 1x800 MW Deen Bandhu Chhotu Ram Thermal Power Plant, Yamuna Nagar, Haryana, India against the Employer's Bidding Documents.

NOW THEREFORE, THIS UNDERTAKING WITNESSETH AS UNDER:

1. That in consideration of the Award of the Contract by the Employer to the EPC Contractor, WE, the aforesaid Sub-Vendor, Collaborator/Associate and the EPC Contractor, do hereby declare and undertake that WE shall be jointly and severally responsible to the Employer for the successful design, installation, execution, commissioning, testing and completion of the **Natural Draught Cooling Tower** along-with associated auxiliaries and perform all the contractual obligations including but not limited to the technical guarantees for the **Natural Draught Cooling Tower** as per the bidding documents.
2. In case of any breach of the Contract committed by the EPC Contractor, WE, the Sub-Vendor and Collaborator/ Associate, do hereby undertake, declare and confirm that WE shall be fully responsible for the successful design, execution, testing, commissioning & completion of the **Natural Draught Cooling Tower** along-with associated auxiliaries and undertake to carry out all the obligations and responsibilities under the contract in order to discharge the Contractor's obligations and responsibilities stipulated in the Contract. Further if the Employer sustains any loss or damage on account of any breach of the Contract, WE, the Contractor, Sub-Vendor and Collaborator / Associate jointly and severally undertake to promptly indemnify, and pay such losses/damages caused to the Employer on its written demand without any demur, reservation, contest or protest in any manner whatsoever, without effecting to the owner.

This is without prejudice to any rights of the Employer under the Contract

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and/or guarantees. It shall not be necessary or obligatory for the Employer to first proceed against the Contractor before proceeding against the Sub-Vendor /Collaborator/Associate, nor would any extension of time or any relaxation given by the Employer to the Contractor prejudice to any rights of the Employer under this Deed of Joint Undertaking to proceed against the Sub-Vendor /Collaborator/Associate.

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

- (a) The Contractor, Sub-Vendor, Collaborator/Associate will be fully responsible for design, engineering, execution, erection, testing, commissioning and successful completion of **Natural Draught Cooling Tower** along-with associated auxiliaries as per the satisfaction of the Employer.

Further, the Collaborator/Associate shall depute their technical experts from time to time to the Contractor's works/Employer's project site as required by Employer and agreed to by the Contractor/Sub-Vendor and Collaborator/Associate to facilitate the successful design, execution, erection, testing, commissioning & completion of the **Natural Draught Cooling Tower** along-with associated auxiliaries as stipulated in the aforesaid Contract.

Further the Collaborator/Associate shall ensure proper design, engineering, execution, erection, testing, commissioning and successful completion of **Natural Draught Cooling Tower** along-with associated auxiliaries in accordance with the specifications and stipulations of the NIT & corrigenda and if necessary, the Collaborator/Associate shall advise the Contractor and Sub-Vendor suitable modifications of design and implement necessary corrective measures to discharge the obligations under the Contract.

- (b) In the event the Contractor fail to demonstrate successful performance of the **Natural Draught Cooling Tower** along-with associated auxiliaries as set forth in paragraph 1 above, Collaborator/Associate, Sub-Vendor and the Contractor shall promptly carry out all the measures at their own expense(s) and shall promptly provide corrected designs to the Employer.
- (c) Implementation of the corrected designs and all other necessary repairs, replacements, rectifications or modifications in the **Natural Draught Cooling Tower** along-with associated auxiliaries shall be carried out as per NIT requirements. Thereafter, the Contractor, Sub-Vendor and the Collaborator/Associate shall demonstrate the successful performance of **Natural Draught Cooling Tower** along-with associated auxiliaries meeting the guaranteed performance parameters as per bidding documents.
- (d) All obligations, whether, financial or performance based, including but not limited to imposition of penalties, payment of compensations for delays/default, deficient performance etc. and meeting guaranteed results/values, shall be the joint and several responsibilities of the Contractor Sub-Vendor and the Collaborator/Associate. HPGCL reserves the right to deduct any such loss/charge/compensation/damages from the payment due/security tendered by the EPC Contractor/ Sub-Vendor Collaborator/Associate.

4. WE, the Contractor, Sub-Vendor and the Collaborator/Associate do hereby undertake and confirm that this Deed of Joint Undertaking (DJU) shall be irrevocable and shall not be revoked till the expiry of 90 days of satisfactory completion of contract or Defect Liability period whichever is later. In case of delay in completion of contract or Defect Liability period, the validity of this Deed of Joint Undertaking shall be extended by such period of delay. WE further agree that this DJU shall be without any prejudice to the various liabilities of the Contractor, including the Contract Performance Security and/or other securities submitted by

*With
signature*

the Contractor to HPGCL and other obligations of the Contractor in terms of the Contract.

5. The Contractor, Sub-Vendor and the Collaborator/Associate will be fully responsible for the quality of **Natural Draught Cooling Tower** along-with associated auxiliaries including the materials incorporated in such works whether fabricated at their works or at their Vendor's works or constructed/fabricated at site, and their repairs or replacement, if necessary, for timely delivery execution thereof to meet the work schedule under the contractual provisions.
6. In case of Award, in addition to the Contract Performance Security and/or other securities submitted by Contractor to HPGCL, the Collaborator/Associate shall furnish "as Security" an on-demand **Performance Bank Guarantee** in favour of the Employer in a form acceptable to Employer as per provisions of the NIT. The value of such Bank Guarantee shall be equal to INR 10,000,000/- (Rupees Ten 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 and the terms and conditions under the contract. The Bank Guarantee shall be unconditional, irrevocable and valid for entire period of Contract, i.e. till ninety (90) days beyond the end of the satisfactory completion of contract or Defect Liability period whichever is later. In case of delay in completion of the contract or defect liability period, the validity of this Bank Guarantee shall be extended by the period of such delay. The Bank 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 Document. This Deed of Undertaking shall be construed and interpreted in accordance with the Laws of India and the Courts of Panchkula, Haryana, India shall have exclusive jurisdiction.
8. WE, the EPC contractor, Sub-Vendor and the Collaborator/Associate agree that this Undertaking shall be irrevocable and shall form an integral part of the contract. We further agree that this Undertaking shall continue to be enforceable till the successful completion of Contract or Defect Liability period whichever is later.
9. That this Deed shall be operative from the date of execution of this DJU.

IN WITNESS WHEREOF, the EPC Contractor, Sub-Vendor and the Collaborator/Associate, through their authorized representatives, have executed these present and affixed common seals of their respective companies on the Day, Month and Year first mentioned above.

*Witness
at Panchkula*

For M/s
(Sub-Vendor/Collaborator/Associate)

Witness :

1.
(Signatures)

.....
(Signature of the authorised representative)

.....
(Name & Official Address)

Name :

Designation :

Common Seal of the Company
.....

For M/s.....
(EPC Contractor)

Witness :

1.
(Signatures)

.....
(Signature of the authorized representative)

.....
(Name & Official Address)

Name :

Designation :

Common Seal of the Company
.....

OWNER.....

IN FAVOUR OF

(Signature of the authorized representative of owner)

Name:

Designation:

Place:

*Abhishek
Wiz*

I.(A) DETAILS OF Cooling Tower (as per clause 4.4.2.2 of Chapter 04, "Provenness" , Volume II of Bidding Documents

In support of Sub-Qualifying Requirements of Clause 4.4.2.2 of Chapter 04, "Provenness" , Volume II of Bidding Document, we confirm that our Sub-vendor M/ s..... have designed, constructed and commissioned at least one (1) number **Natural** Draught Cooling Tower in RCC Construction with **with cooling water flow** not less than **25000** M³/hr **which should have been in successful operation for at least one (1) year as on 20/03/2025.**

We further confirm that the reference cooling towers are of the same

type as is being offered by us. The details of the reference cooling tower executed by our Sub-vendor 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 Cooling Towers (RCC NDCT)	.....
7.	Type of Construction	.....
8.	Whether scope of works included	
	(a) Design of Cooling Towers	YES*/NO*

Sl. No.	Description/Details	Plant
	(b) Construction of Cooling towers	YES*/NO*
	(c) Commissioning of Cooling towers	YES*/NO*
9.	Type of fill used,	.....
10.	Value of Contract/Work (Rs. in million)	.....
11.	Date of order by the client	.....
12.	Date of Commissioning of the Cooling tower	Tower 1:
13.	Is the cooling tower in successful operation as on 20/03/25	YES*/NO*
14.	Number of years of successful operation as on 20/03/25	.....years
15.	Certificate from client to substantiate Bidder's QR data is enclosed at Annexure to this Attachment-3A-9	YES*/NO*
16.	Whether the reference cooling tower at sl. No. 1 is designed by bidder himself or not	YES*/NO*
17.	If 'No' then furnish the details of cooling Towers/ design proposed	
18.	Experience of designer	
	a. Description of work & name of client	
	b. Location / Address of Plants /work	

Sl. Description/Details
No.

Plant

- c. Address of client (including contact person name, telephone no., e-mail etc.
- d. No. of cooling towers
- e. Capacity of each cooling tower (m3/hr)
- f. Type of Cooling Towers
(RCC NDCT)
- g. Type of Construction (RCC or not)
- h. Type of fill used,
- i. Value of contract/Work (Rs. in million)
- j. Date of order by the client
- k. Date of Commissioning of the cooling tower
- l. Is the cooling tower in successful operation as **20/03/25**

Note : z Sub-vendor to ensure submission of documentary evidences in the form of copies of Letter of Award/purchase order, Clients performance/completion certificate etc for each tower/contract to establish that Sub-vendor has designed, Constructed including the details such as the capacity/type of cooling towers, Commissioning dates etc with the bid in support of the above declarations.

z * Strike off whichever is not applicable.

Date : (Signature).....
Place : (Printed Name).....
(Designation).....
(Common Seal).....

I.(B) DETAILS OF Cooling Tower Bidder (as per clause 4.4.2.1 of Chapter 04, "Provenness" , Volume II of Bidding Document

In support of Sub-Qualifying Requirements of Clause 4.4.2.1 of Chapter 04, "Provenness" , Volume II of Bidding Document, we confirm that our Sub-vendor M/s..... have designed, constructed and commissioned at least one (1) number **Natural** Draught Cooling Tower in RCC Construction with **with cooling water flow** not less than **25000** M³/hr **which should have been in successful operation for at least one (1) year as on 20/03/2025.**

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 Cooling Towers (RCC NDCT)	
7.	Type of Construction	
8.	Whether scope of works included	
	(a) Design of Cooling Towers	YES*/NO*
	(b) Construction of Cooling towers	YES*/NO*
	(c) Commissioning of Cooling towers	YES*/NO*

Sl. No.	Description/Details	Plant
9.	Type of fill used, (splash type or not)	.....
10.	Value of Contract/Work (Rs. in million)	.....
11.	Date of order by the client	.....
12.	Date of Commissioning of the Cooling tower	Tower 1:
13.	Is the cooling tower in successful operation as on 20/03/25	YES*/NO*
14.	Number of years of successful operation as on date of bid opening	.....years
15.	Certificate from client to substantiate Bidder's QR data is enclosed at Annexure to this Attachment-3A-9	YES*/NO*

Note : z Sub-vendor to ensure submission of documentary evidences in the form of copies of Letter of Award/purchase order, Clients performance/completion certificate etc for each tower/contract to establish that Sub-vendor has designed, Constructed including the details such as the capacity/type of cooling towers, Commissioning dates etc with the bid in support of the above declarations.

z * Strike off whichever is not applicable.

Date : (Signature).....

Place : (Printed Name).....

(Designation).....

(Common Seal).....