

**BALANCE OF PLANTS (BOP)  
ON EPC BASIS**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## EPC PACKAGE FOR BALANCE OF PLANTS (BOP)

AT

MPPGCL SATPURA TPS,  
UNIT-12 (1X660 MW), SARNI, MP

# Volume-1A

BHARAT HEAVY ELECTRICALS LIMITED



# TECHNICAL CONDITIONS OF CONTRACT (TCC)

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## Chapter-I Project Information

### 1. PROJECT INFORMATION:

Sl. No.	Description	Details
1	Project Title	Satpura TPS, Unit-12 (1X660 MW), Sarni
2	Customer	M.P. Power Generating Co. Ltd. (MPPGCL)
3	Location	Sarni TPS is located near Sarni town in Betul district of Madhya Pradesh State, having latitude and longitude of 22°- 06' (N) and 78° -10' (E) respectively. The site is approximately 65 Km from Betul via Baretha. State Highway (SH-45) is alongside of the power plant. National Highway (NH-46) which runs from Itarsi to Betul & Distance from site to NH-46 is 31 km
4	Nearest Airport	The nearest commercial airports are Bhopal and Nagpur. Both are about 190 Km from the project site.
5	Access by Road/Major Cities	The road distances of proposed site from major cities/towns are as follows: Bhopal City: 175 Kms. Nagpur City: 185 Kms. The nearest rail head is Ghoradongri Railway Station (on Nagpur-Itarsi mainline) and is approximately 18 km from the project site.
6	Temperature / Humidity / Rain Fall	Climatological data from nearest observatory from Amarkantak is attached as <b>Annexure-II</b> of TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC NO.: CW-CM-11233-C-O-M-001.
7	Seismic Zone	As per Technical Specification of Civil Works, Seismic Design Criteria attached as <b>Annexure-E</b> of TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC NO.: CW-CM-11233-C-O-M-001.
8	Wind Speed	As per Technical Specification of Civil Works Wind Design Criteria attached as <b>Annexure-D</b> of TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC NO.: CW-CM-11233-C-O-M-001.

The basic information about the project is tabulated above and the present proposal is for setting up BOP Packages for SATPURA TPS, UNIT-12 (1X660 MW) for MPPGCL with all the facilities as specified in the NIT. General information related to the project and site is available in **ANNEXURE-1**, which has been enclosed along with this enquiry specification.

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## Chapter-I Project Information

1.0	INSTRUCTIONS TO BIDDERS																
1.1	<p>The Bidder shall visit project site and acquire full knowledge and information about conditions prevailing at site and in &amp; around the plant premises, together with site conditions, transportation routes, various distances, all the statutory, obligatory, mandatory requirements of various authorities and all information that may be necessary for preparing the bid and entering into the Contract. All costs for and associated with site visits shall be borne by the bidder.</p> <p>Bidder has to arrange certification/acknowledgement of their Site Visit from BHEL Site Person and same has to be submitted.</p>																
1.2	<p>Other contractors would be working in this area and their structures are to be protected. The material brought and stacked for construction should not make hindrance to other contractors.</p>																
1.3	<p>The information given herein is for general guidance and shall not be contractually binding on BHEL/Owner (MPPGCL). All relevant site data /information as may be necessary shall have to be obtained /collected by the Bidder. All costs for and associated with site visits shall be borne by the bidder.</p>																
1.4	<p>The contractor, in the event of this work awarded to him, shall establish an office at site and keep posted an authorized, responsible officer with valid Power of Attorney for the purpose of the contract. Any order or instructions of the 'Engineer' or his duly authorized representative, communicated to the contractor's representative at site office will be deemed to have been communicated to the contractor at his legal address.</p>																
1.5	<p>No claim will be entertained by BHEL on the ground of lack of knowledge and the bidder's rates shall be deemed to have taken this into account.</p>																
1.6	<p>Bidders may fix up their site visit in consultation with below mentioned contact person:</p> <table border="1" data-bbox="288 1368 1453 1863"> <tr> <td data-bbox="288 1368 560 1429">Name:</td><td data-bbox="560 1368 1453 1429">Shri Rohit Agarwal</td></tr> <tr> <td data-bbox="288 1429 560 1489">Designation:</td><td data-bbox="560 1429 1453 1489">Sr.Manager</td></tr> <tr> <td data-bbox="288 1489 560 1550">Email:</td><td data-bbox="560 1489 1453 1550">rohitagr@bhel.in</td></tr> <tr> <td data-bbox="288 1550 560 1610">Ph no:</td><td data-bbox="560 1550 1453 1610">9974066147</td></tr> <tr> <td data-bbox="288 1610 560 1671">Name:</td><td data-bbox="560 1610 1453 1671">Shri ASHWIN C BHISIKAR</td></tr> <tr> <td data-bbox="288 1671 560 1731">Designation:</td><td data-bbox="560 1671 1453 1731">SDGM</td></tr> <tr> <td data-bbox="288 1731 560 1792">Email:</td><td data-bbox="560 1731 1453 1792">ashwinbhisikar@bhel.in</td></tr> <tr> <td data-bbox="288 1792 560 1863">Ph no:</td><td data-bbox="560 1792 1453 1863">8390211889</td></tr> </table>	Name:	Shri Rohit Agarwal	Designation:	Sr.Manager	Email:	rohitagr@bhel.in	Ph no:	9974066147	Name:	Shri ASHWIN C BHISIKAR	Designation:	SDGM	Email:	ashwinbhisikar@bhel.in	Ph no:	8390211889
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## Chapter-II Facilities to be provided by Bidder/BHEL

2.0 FACILITIES TO BE PROVIDED BY BIDDER/BHEL				
Sl. No	Description PART I	Scope		Remarks
		BHEL	Bidder	
2.1	Establishment:			
2.1.1	For Construction Purpose:			
A	Open space for office (as per availability within project premises)	Yes		Location will be finalized after joint survey with owner.
B	Open space for storage (as per availability within project premises)	Yes		Location will be finalized after joint survey with owner. Any additional space as required for timely execution of the project is to be arranged by the bidder without any extra cost.
C	Construction of bidder's office, canteen and storage building including supply of materials and other services		Yes	
D	Bidder's all office equipment, office / store / canteen consumables		Yes	
E	Canteen facilities for the bidder's staff, supervisors and engineers etc.		Yes	
F	Firefighting equipment like buckets, extinguishers, Fire Tender etc.		Yes	
G	Fencing & security of storage area, office, canteen etc. of the bidder		Yes	
2.1.2	For Living purpose of the bidder:			
A	Open space for labor colony		Yes	Bidder has to make his own arrangements for shelter and transportation of labors as per requirement and as per specification of BHEL/Owner. However, if open space for Land for labour colony, storage shed and laydown area has been made available by Owner (MPPGCL) free of cost, BHEL may extend the same to the bidder at its own discretion.

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B	Labor Colony with internal roads, sanitation, complying with statutory requirements		Yes	Construction Plan shall be approved by BHEL. With required facilities is attached.
2.2	<b>Construction Power:</b>			
2.2.1	Electricity for construction purposes (for Site/Project works only) 3 Phase 415/440V within project premises			Construction Power shall be <b>chargeable</b> @ prevailing MPPGCL DISCOM rates.
A	Single point source from Customer	Yes		Max 4 different Tapings at BOP Battery Limit as per Construction Power Layout attached in <b>Annexure-5</b> shall be provided to BOP vendor by BHEL.
B	Further distribution including all materials, Energy Meter, Protection devices and its maintenance & service during entire project time period		Yes	
C	Duties and deposits including statutory clearances if applicable		Yes	
2.2.2	Electricity for office, stores, canteen etc. of the bidder within project premises		<b>Yes</b>	Bidder has to make his own arrangements and the same is chargeable as per terms & conditions of MPPGCL / as per prevailing DISCOM rates.
A	Single point source		Yes	
B	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	
C	Duties and deposits including statutory clearances if applicable		Yes	
2.2.3	Electricity for living accommodation of the bidder's staff, engineers, supervisors, labour hutment etc.		<b>Yes</b>	Bidder has to make his own arrangements and the same is chargeable as per terms & conditions of MPPGCL / as per prevailing DISCOM rates.
A	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	

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B	Payment/Duties and deposits including statutory clearances if applicable		Yes	
2.3	<b>Water Supply:</b>			
2.3.1	For construction purposes:			
A	Making the water available at single point		Yes	Contractor may be permitted to make arrangement for lifting of construction water at one point of MPPGCL's reservoir, at his own cost. Charges for water used will be as per MPPGCL terms & conditions.
B	Tube Well / Bore Well		Yes	Alternatively, w.r.t. point no. 2.3.1A & B contractor may install appropriate tube wells at 1-2 locations within plant boundary after obtaining approval from Central Ground Water Authority (CGWA), Bhopal at his end. No charges will be levied on water used.
C	(1 No) Tapings for Construction Water to be provided to BHEL at mutually agreed location at site		Yes	Construction Water upto one location suitable to BHEL along with suitable valves & meter arrangement shall be in the scope of contractor.
D	Further distribution as per the requirement of work including supply of materials and execution		Yes	
2.3.2	Water supply for bidder's office, stores, canteen etc.			
A	Making the water available at single point		Yes	In line with point no. 2.3.1A & B and as per terms & conditions with Owner (MPPGCL).
B	Further distribution as per the requirement of work including supply of materials and execution		Yes	

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2.3.3	Water supply for Living Purpose			In line with point no. 2.3.1A & B and as per terms & conditions with Owner (MPPGCL).
A	Making the water available at single point		Yes	
B	Further distribution as per the requirement of work including supply of materials and execution		Yes	
2.4	<b>Construction Lighting</b>			
A	For construction work (supply of all the necessary materials) 1. At office/storage area 2. At the preassembly area 3. At the construction site /area		Yes	
B	For construction work (execution of the lighting work/ arrangements) 1. At office/storage area 2. At the preassembly area 3. At the construction site /area		Yes	
C	Providing the necessary consumables like bulbs, switches, etc. during the course of project work		Yes	
D	Lighting for the living purposes of the bidder at the colony / quarters		Yes	
2.5	<b>Communication facilities for site operations of the bidder</b>			
A	Téléphone, internet, intranet, e-mail etc.		Yes	
2.6	<b>Demobilization of all the above facilities</b>		Yes	After successful completion of scope of work, Demobilization/ Disposal/ levelled space to be ensured by Bidder.
2.7	<b>Erection Facilities</b>			
2.7.1	Engineering works for construction:			
A	Providing the erection/constructions drawings for all the equipment covered under this scope		Yes	



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B	Drawings for construction methods		Yes	In consultation with BHEL
C	As-built drawings where ever deviations observed and executed and also based on the decisions taken at site		Yes	Changes are to be incorporated and final as-built drgs in required nos to be submitted to BHEL / Owner on completion of work.
D	Shipping lists etc. for reference and planning the activities		Yes	
E	Preparation of site erection schedules and other input requirements as per Form-14.	Yes	Yes	In consultation with BHEL
F	Review of performance and revision of site erection schedules in order to achieve the end dates and other commitments	Yes	Yes	In consultation with BHEL
G	Weekly construction / erection schedules based on Sl. No. D		Yes	In consultation with BHEL
H	Daily work plan based on Sl. No. F		Yes	In consultation with BHEL
I	Periodic visit of the senior official of the bidder to site to review the progress so that works is completed as per schedule. It is suggested this review by the senior official of the bidder should be done once in every two months.		Yes	

<b>2.8</b>	<b>Land/Open Space:</b>
<b>2.8.1</b>	Land within plant boundary is limited and the bidder has to plan and use the existing land considering the use of land by other Civil /mechanical/ electrical contractors and the storage of plant machineries and materials. The existing land shall be shared by all erection agencies. BHEL shall provide free of charge limited open space for office, storage shed and laydown area as and where made available by Owner (MPPGCL). It is the responsibility of the bidder to construct sheds, fabrication yard, establish batching pant, provide all utilities and dismantle and clear the site after completion of work or as and when required, as a

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	part of his scope of work. Any additional space as required for timely execution of the project is to be arranged by the bidder without any extra cost.
<b>2.9</b>	<b>Labour and Staff Colony:</b> Following are in the Bidder's scope of work for labour & staff colony:
<b>2.9.1</b>	Labour colony is to be developed by bidder for all the labourers required to be deployed for their scope of work. Labour colony set-up is to be developed in compliance of statutory requirements.  Ownership of the labour hutment shall be of the contractor. Contractor shall keep BHEL indemnified from any statutory obligations / legal compliances w.r.t. labour hutment establishment during as well as after the completion of contract.
<b>2.9.2</b>	If open space for Land for labour colony, storage shed and laydown area has been made available by Owner (MPPGCL) free of cost, BHEL may extend the same to the bidder at its own discretion. Necessary levelling/dressing of land shall be done by the bidder. All arrangement for electricity and drinking/service water to be arranged by the bidder within his quoted price. Any additional space as required is to be arranged by the bidder without any extra cost.
<b>2.9.3</b>	Providing and maintaining facilities for safety, security, welfare, drinking water and sanitation, hygiene, biennial health check-up etc. for construction workers at their workplaces as well as at labour & staff colonies. Contractor shall ensure establishment & maintenance of workmen/labour colony in line with BHEL layout drawings & Guidelines (As per <b>Annexure-3</b> - Standard Guidelines for Worker's Accommodation / Establishments at BHEL-Project Sites)
<b>2.9.4</b>	Development and maintenance of above facilities for construction workers deployed by the bidder shall solely rest with the bidder.
<b>2.9.5</b>	Installation of necessary amenities- and temporary infrastructure for construction activities at Project site locations. Following are the minimum amenities to be provided by the bidder within the quoted price including removal/disposal of the same in environment friendly manner after its intended use/completion of scope of work: <ul style="list-style-type: none"> <li>i. Labour rest sheds near work spot.</li> <li>ii. Canteen facility creation.</li> <li>iii. Drinking water facility.</li> </ul>

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	<p>iv. Labour Bio toilets near work spot in sufficient nos. with regular cleaning &amp; maintenance arrangement. Exclusive arrangement of Bio toilets to be made at site for ladies.</p> <p>v. Labour colony should have all hygienic condition, dining hall, toilets, proper sewerage system, good drinking water arrangements.</p> <p>vi. Recreational facilities, etc.</p>
<b>2.10</b>	<b>Construction Power:</b>
<b>2.10.1</b>	<p>Construction power (three phases, 415 V/ 440 V) will be provided on chargeable basis at prevailing rates of MPPKVCL at 4 (Four) locations in BOP Battery Limit as per Construction Power Layout attached as per <b>Annexure-5</b>. Contractor shall be responsible for fulfilment of all requirements including statutory requirements in this regard. Contractor shall deploy and install required energy meter, cables, fuses, distribution boards, switchboards, bus bars, earthing arrangements, protection devices and any other installation as specified by statutory authority/act. Contractor shall also obtain approvals of appropriate authority and pay necessary fees, levies etc. towards the clearance of such installations, prior to use. Sufficient power factor compensation equipment like capacitor shall be provided by contractor for reactive loads like welding machines etc. In case of any fine/penalty on account of low power factor, same shall be shared by contractor proportionately according to power consumption.</p> <p>Contractor has to deploy DG Sets to meet power requirement in case of delay in availability of single source or any kind of power interruptions during the course of the project at no extra cost to BHEL.</p> <p>If any other voltage level (other than normally available) is required, the same shall be arranged by the contractor from power supply as above. Contractor shall be responsible for fulfilment of all requirements including statutory requirements in this regard.</p>
<b>2.10.2</b>	<p>Contractor to note that BHEL shall complete the arrangements for Construction Power Supply (as specified in the clause 2.10.1) after about (09) nine months from the commencement of contract period. Till such arrangement is made by BHEL, the contractor should make his own arrangement for alternative source of power supply through deployment of adequate number of DG sets/usage of diesel operated machines, at their cost. No separate payment shall be applicable for this.</p>

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2.10.3	Contractor shall deploy and install required cables, fuses, distribution boards, switchboards, bus bars, earthing arrangements, protection devices and any other installation as specified by statutory authority/act.
2.10.4	Sufficient power factor compensation equipment like capacitor shall be provided by contractor for reactive loads like welding machines etc. In case of any fine/penalty on account of low power factor, same shall be shared by contractor proportionately according to power consumption.
2.10.5	Contractor shall make necessary arrangements for onward distribution of construction power taking due care of surrounding construction activities like movement of cranes & vehicles, civil work, fabrication/construction/assembly/ erection etc. and safety of personnel. It may become necessary to relocate some of the installations to facilitate work by other agencies or by themselves.
2.10.6	It shall be the responsibility of the bidder to provide, maintain the complete installation on the load side of the supply with due regard to the safety requirements at site and surrounding construction activities like movement of cranes & vehicles, civil work, fabrication/construction/assembly/erection etc. All cabling and installations shall comply in all respects with the appropriate statutory requirements. Bidder shall deploy and install required energy meter, cables, fuses, distribution boards, switchboards, bus bars, earthing arrangements, protection devices and any other installation as specified by statutory authority/act. The installation and maintenance of this shall be done by licensed and experienced electrician.
2.10.7	While reasonable efforts will be made to ensure continuous electric power supply, interruptions cannot be ruled out and no claim from the Contractor shall be entertained on this account such as idle labour, extension of time etc. The Contractor shall adjust his working shift accordingly and deploy additional manpower, if necessary, so as to achieve the target.
2.10.8	The contractor shall also take the approval/ permission of statutory authorities for his DG set installation. The Contractor has to make his own arrangement for the same as required to carry out the job under the scope of work within the quoted rate. Nothing extra shall be paid on this account of DG set up and running for construction and office maintenance etc.

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2.10.9	Contractor shall be well equipped with back-up power supply arrangement like DG set and diesel operated welding machine etc. to tackle situations arising due to failure of supplied power, so as to ensure continuity and completion of critical processes that are underway at the time of power failure or important activities planned in immediate future.
2.10.10	BHEL is not responsible for any loss or damage to the Contractor's equipment as a result of variations in voltage or frequency or interruptions in power supply.
2.10.11	The bidder will have to procure & install General mobile illumination system during construction right from start of his work. This system will include temporary pole lighting, portable lighting towers with DG back-up, within the quoted price. The illumination should be such that minimum illumination requirement as specified by Indian standards for general illumination is maintained.
2.10.12	Supply of electricity shall be governed by Indian Electricity Act and Installation Rules and other Rules and Regulation as applicable. The contractor shall ensure usage of electricity in an efficient manner and the same may be audited by BHEL time to time. In case of any major deviation from normally accepted norms is observed, BHEL will reserve the right to impose penalty as deemed fit for such cases.
2.10.13	All temporary cabling/wiring/switching arrangement must comply with local regulations and will be subject to BHEL/Owner (MPPGCL)'s inspection and approval before connection to supply.
2.10.14	The Bidder's scope shall also include dismantling/rerouting/relocation and reinstallation of its overhead line/substations/Lighting Masts at new locations in case construction power network is fouling with any other facilities in the project. All the cost of such rerouting/reinstallation of line/substations shall be in the Bidder's scope.
2.11	<b>Construction Water:</b>
2.11.1	Arrangement of Construction water from Owner (MPPGCL) Specified point given under Clause No. 2.3 (A&B) for its own and BHEL use shall be in bidder's scope. Bidder has to make arrangement of further distribution of water at his own cost. No extra payment shall be made under this account.
2.11.2	Bidder should make own arrangements for storage of sufficient quantity of water required for work. The agency should also construct sumps (if required) of suitable size for storage

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## Chapter-II Facilities to be provided by Bidder/BHEL

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	of construction water as per their requirement for use in batching plant and construction purposes.
2.11.3	Bidder has to satisfy himself that the water drawn by him is fit for construction / consumption and adequately or treat such water at his cost when it is not found fit for the said purposes.
2.11.4	Bidder shall not only rely on the BHEL/ Owner (MPPGCL) provided source and shall also make alternate/back-up source of water at his own cost to ensure timely Project Execution without any interruption.
2.11.5	Construction Water upto one location suitable to BHEL along with suitable valves & meter arrangement shall be in the scope of contractor.

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## Chapter - III: Scope of Work

3.0	SCOPE OF WORK
3.1	<p><b>Intent of Specification</b></p> <p>Design, engineering, manufacturing, inspection, testing, painting, supply / delivery duly packed at project site including transportation up to site, receipt, unloading, storage, security &amp; handling at site, complete civil &amp; structural works (Site-Fabricated &amp; welded), construction, erection, testing, commissioning, final painting at site, trial run, PG Test, handing over, Completion of Facilities, Operation and Maintenance till handover, Training etc. in line with drawings/ documents/ test procedures approved by Owner (MPPGCL), and conforming to the MPPGCL Contract, on the basis of <b>Single Point Responsibility</b> for total scope defined in <b>BALANCE OF PLANTS (BOP)</b> AS PER SCOPE MATRIX AND PLOT PLAN BATTERY LIMIT enclosed as annexures along with this Technical conditions of contract (TCC) &amp; relevant provisions elsewhere taking into account all clarifications, confirmations, amendments, MOMs and agreements till date for BOP EPC package complete with all accessories, including supply of consumables, erection &amp; commissioning spares, special tools &amp; tackles for maintenance, mandatory spares, etc. for Satpura TPS, Unit-12 (1X660 MW), Sarni.</p>
3.2	<p><b><u>Design &amp; Engineering:</u></b></p> <p>Scope for this package bidder shall include design, basic engineering, detail engineering, submission of engineering drawing/ fabrication drg./ calculations/ datasheets/ Quality Assurance Plans/ Field Quality Plans, Performance Guarantee Test Procedure, Erection and Commissioning Procedure, Operation &amp; Maintenance Manuals, As built drawings and obtaining the approval from Owner (MPPGCL) / Owner's Consultant / BHEL for all civil, structural, mechanical, electrical, C&amp;I equipment/ items / systems for complete BALANCE OF PLANTS (BOP) AS PER SCOPE MATRIX AND PLOT PLAN BATTERY LIMIT enclosed as annexures along with this Technical conditions of contract (TCC).</p> <p>3D Model submission of complete BALANCE OF PLANTS (BOP) AS PER SCOPE MATRIX AND PLOT PLAN BATTERY LIMIT enclosed as annexures along with this Technical conditions of contract (TCC) including Mechanical, electrical, civil, structural, HVAC, C&amp;I work etc. in E3D/TEKLA software. (Refer <b>Annexure-7</b>)</p>

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## Chapter - III: Scope of Work

	<p><b>ENGINEERING EXCELLENCE</b></p> <p>Design Agency qualifying the requirement as specified in Chapter-VI, Sub-Qualification Requirement shall be responsible for detailed engineering and obtaining approvals from the design/engineering centres of BHEL, the Owner (MPPGCL), and their Consultant, until completion of the Project.</p> <p>The Bidder shall submit, along with the tender, a joint undertaking with the Design Agency confirming that the Design Agency will be engaged for the entire scope of work upon award of the job by BHEL.</p>
3.3	<p><b><u>Manufacturing &amp; Supply:</u></b></p> <p>The scope includes design, engineering, manufacture, fabrication, assembly, inspection &amp; testing at vendor's &amp; sub-vendor's works, painting, maintenance tools &amp; tackles, mandatory spares, spares for erection, start-up and commissioning as required, fill of lubricants &amp; consumables and till trial operation of system of the units, forwarding, proper packing, shipment and delivery at site for project and package complete with all accessories for the total scope defined for complete BALANCE OF PLANTS (BOP) AS PER SCOPE MATRIX AND PLOT PLAN BATTERY LIMIT enclosed as annexures along with this Technical Conditions of Contract (TCC) including AHP, BHP, CHP, MRHS Water System (RWP, DMP, PTP, ETP, Gas Chlorination/CIO<sub>2</sub>, Clarified Water Pump House, CW Pump House, NDCT, CW-Chemical Treatment Plant, Misc. Tanks, CPU, Chemical/LP Dosing etc.), ACW &amp; DMCW Pumps, Filters, Strainers, PHEs, Sump Pumps), HVAC, Compressed Air System, Fuel Oil Handling System, Fire Protection System with associated piping, Pipe &amp; Cable Rack, , EOT Cranes (Excluding TG hall and BC bay EOTs), Hoist, Monorail, Elevators (As per Scope Matrix), Illumination System, Rain Water Harvesting, etc. along with Civil, Structural (Site-Fabricated), Mechanical, Electrical &amp; C&amp;I as per BHEL NIT &amp; Technical conditions of contract, amendments &amp; agreements till placement of order.</p> <p>Bidder's scope shall also include supply of start-up &amp; commissioning spares and tools &amp; tackles required for commissioning applicable for bidder's supplied equipment / systems in this package deemed to have been included in the total bid price. Commissioning Spares as required till completion and handing over of project shall be in bidder' scope and deemed to have been included in the total bid price.</p>



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## Chapter - III: Scope of Work

3.4	<p><b>Supply of Mandatory Spares:</b></p> <p>The Bidder's quoted price shall include the cost of Mandatory Spares (Including Freight) as list specified in <b>Annexure-11</b>. The Bidder along with their bid shall also submit a <b>declaration in Annexure-10</b> indicating the price of Mandatory Spares (Including Freight) as a percentage of the Total Quoted Value. Under no circumstances shall the price of Mandatory Spares be less than Four percent (4%) of the Total Quoted Value.</p> <p>The Bidder shall further provide an itemised price for each Mandatory Spare listed in <b>Annexure-11</b> with-in one month of issue of LOI. The total of the itemised prices must correspond to the value derived from the percentage declared in <b>Annexure-10</b>. The itemised pricing submitted by the Bidder shall be subject to BHEL's review and approval.</p> <p>BHEL will subsequently select the final set of Mandatory Spares from the list provided in <b>Annexure-11</b>. The total price for Mandatory Spares shall be the aggregate of the BHEL selected items at the approved itemised rates. BHEL reserves the right to award (LOA) for the Mandatory spares within 24 months of issue of LOI.</p>
3.5	<p><b>Installation Services, Erection &amp; Commissioning, Equipment Trial, Integrated Trial Operation &amp; PG Test of BOP Systems:</b></p> <p>The scope of this package under installation services, E&amp;C shall cover all equipment/systems, Civil, Structural (Site-Fabricated &amp; welded), Mechanical, Electrical and C&amp;I as per scope defined in NIT specification comprising of receipt of material, unloading, handling, transportation &amp; storage at site, Construction of Stores at site (Open &amp; Closed), lifting/shifting of material to closed/open storage, in-site transportation, to make approach road wherever required, Round the clock security at open storage yard , closed storage shed &amp; erected material till Handover of system to Owner (MPPGCL) of work, assembly, complete Erection, alignment, carrying out Pre-Commissioning, Commissioning of equipment and Integrated Trial operation of system at site and carrying out Performance Guarantee Tests, Reliability Test Run, Functional/Demonstration tests at site (As applicable obtaining Provisional Acceptance Certificate (PAC), Final Acceptance Certificate (FAC) and handing over of the equipment &amp; systems under BALANCE OF PLANTS (BOP) AS PER SCOPE MATRIX AND PLOT PLAN BATTERY LIMIT enclosed as annexures along with this Technical conditions of contract (TCC) to Owner (MPPGCL) complete with all accessories for the total scope</p>

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	defined as per BHEL NIT & tender technical specification, amendments & agreements till placement of order.
3.6	<p><b>Civil, Structural (Site-Fabricated &amp; welded) and Architectural Works:</b></p> <p>The scope of civil, structural (Site-Fabricated &amp; welded) and architectural works shall include, site clearance, dismantling of existing structures/sub-structures/facilities/underground structure, micro site levelling, preparation of Civil &amp; Structural design &amp; drawings (Including 3D modelling in Tekla) and getting approval of the same from the Employer. Construction of all civil, structural (Site-Fabricated &amp; welded) and architectural works including supply of all construction materials for all buildings, equipment and facilities for the project. The nature of work generally involves, piling (if required), earthwork in excavation in all types of soil and rock including controlled or chemical blasting (as applicable)/ mechanical means, de-watering, backfilling around completed structures, plinth filling, disposal of surplus earth/rock/excavated material/dismantled material, construction Raft/ Foundation with pedestal for all civil structures, trenches, sumps, grade beams, tie beams at foundation level, grade slabs, floor slabs and roof slabs at any height, equipment foundations etc., preparation of detailed working drawings and bar bending schedule for all reinforced concrete work and getting them approved before start of work by the BHEL Engineer, concreting including reinforcement and form work/ slip form, masonry work, plastering, corrosion protection measures including painting, un-insulated / sandwiched insulated metal wall cladding, roofing and flooring including permanent steel decking, false ceiling, under deck and over deck insulation, acid and alkali resistant lining, fabrication and fixing of templates/frames, inserts, fixing of anchor bolts, sleeves, and embedment's etc. in concrete, Shop-fabrication/Site-fabrication of all structures, pre assembly of fabricated structures, transportation of fabricated structures and erection of steel structures and miscellaneous steel works (i.e., steel staircase, cable supports, pipe supports, ladders, walkways, railing, chequered plate, grating, grizzly, inserts, monorail beam, monorail door, debris chute, stools, liners, Chemical and mechanical anchoring in existing floor/wall for inserting new EP, IP, painting of structures, foundation bolt, grouting, paving, gravel filling, providing pre-cast covers, damp proofing, roof water proofing, anti-weed treatment, roads, drainage, sewerage, final grading and site clearance before handing over and any other item of work required for completion of all systems under the scope of work complete as per</p>

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	<p>Specifications.</p> <p>All Civil, architectural and structural works (Site-Fabricated &amp; welded) of entire system/sub-system/facilities (BOP as well as BHEL) outside BTG island as per Plot plan for demarcation of BTG island shall be in the scope of Bidder (BOP EPC vendor). Refer SCOPE MATRIX AND PLOT PLAN BATTERY LIMIT</p> <p>Civil, architectural and structural works (Site-Fabricated &amp; welded) of entire system/sub-system/facilities except for CHP and AHP system* (BOP as well as BHEL) within BTG island as per Plot plan for demarcation of BTG island shall be in the scope of BHEL. Refer SCOPE MATRIX AND PLOT PLAN BATTERY LIMIT</p> <p>*For CHP and AHP system - Civil, architectural and structural works (Site-Fabricated &amp; welded) of entire system including facilities/buildings located in BTG island shall be in the scope of Bidder (BOP EPC vendor). Refer SCOPE MATRIX AND PLOT PLAN BATTERY LIMIT</p>
3.7	<p>Tentative list of Equipment / Systems / Packages is mentioned under <b>Scope Matrix &amp; Plot Plan Battery Limit</b>, the list given is only for reference and not exhaustive and any other associated equipment/items required for satisfactory completion of the systems shall be in bidder' scope. All the parameters of equipment indicated in various chapters of this Technical Specification are the minimum requirements. Any increase in the sizes or quantity, if required to meet the system/maintenance/operational requirement shall be absorbed by the bidder without any extra cost implication to BHEL.</p>
3.8	<p>Preliminary Geotechnical Investigation report is part of the tender documents. Detailed Geotechnical Investigation for the BOP area shall be in the scope of BOP vendor. Removal of underground structure, carrying out the GPR testing in the related area of work shall be in the scope of the bidder without any extra cost.</p>
3.9	<p><b>Tool and Plants:</b> All the T&amp;P required for the execution of the package till handing over of the Unit to Owner (MPPGCL) shall be in the scope of Bidder.</p> <p>BHEL shall not provide any T&amp;Ps for this scope of work. All T&amp;Ps required for handling of items / materials and complete execution of work is to be arranged by the bidder to meet the project schedule / milestones.</p>
3.10	<p>The works covered under the scope of the bidder have to be executed in an existing power station. The bidder shall take all necessary precautions to protect the existing equipment, structures, facilities and buildings etc. from damage. In case any damage occurs due to activities of the bidder on account of negligence, ignorance, accidental or any other reason whatsoever, the damage shall be made - good by the bidder at his own cost to the satisfaction of the Owner. The bidder shall take all necessary safety measures to avoid any harm, injury to existing workers/staff from the equipment / facilities of the power station.</p>

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3.11	It is not the intent to specify completely herein, all aspects of design and construction of BALANCE OF PLANTS (BOP) AS PER SCOPE MATRIX AND PLOT PLAN BATTERY LIMIT enclosed as annexures along with this Technical conditions of contract (TCC). However, System shall conform in all aspects to high standard of engineering, design and workmanship and be capable of performing satisfactorily during continuous commercial operation in a manner acceptable to Owner (MPPGCL)/BHEL, who shall interpret the meaning of the specification, drawings and shall have the right to reject or accept any work or material which in their assessment is not conforming to this specification and/or to applicable International Standards.
3.12	Supply and E&C of any other associated equipment/items/Structures/Buildings not specifically mentioned here in this specification but required for successful operation, completion, installation, and operation of the BALANCE OF PLANTS (BOP) AS PER SCOPE MATRIX AND PLOT PLAN BATTERY LIMIT shall be deemed to be included in bidder's scope of work and bidder to quote accordingly.
3.13	Notwithstanding the details furnished in this document, it shall be the responsibility of the bidder to complete the work in all respects, commission and complete integrated trial operation of system & performance tests of BALANCE OF PLANTS (BOP) AS PER SCOPE MATRIX AND PLOT PLAN BATTERY LIMIT enclosed as annexures along with this Technical conditions of contract (TCC) to the satisfaction of Owner (MPPGCL)/BHEL.
3.14	Achieving the PG parameters, for the bidder's supplied equipment/system and complete of BALANCE OF PLANTS (BOP) AS PER SCOPE MATRIX AND PLOT PLAN BATTERY LIMIT enclosed as annexures along with this Technical conditions of contract (TCC) as a whole, shall be the responsibility of the bidder.
3.15	Bidders to note that no deviation shall be taken from the technical specifications, BHEL/Owner (MPPGCL) documents and related clarifications, confirmations, amendments, MOMs and agreements till date and annexures which form the part of the tender.
3.16	<p><b>INSURANCE:</b></p> <p>BHEL shall arrange comprehensive insurance policy for total supply &amp; services for main equipment/ system covering inland transit risks &amp; loss, destruction or damage during handling at site, storage, civil works, erection, testing and commissioning up to trial operation/ completion of unit(s) including theft, sabotage, fire, lightning and other natural calamities.</p> <p><b>Inland Transit</b> cum Storage and E&amp;C Insurance - In BHEL Scope. Complete project insurance is under BHEL scope. Copy of MCE policy will be provided to the bidder in due course of time.</p> <p><b>General Terms of Insurance shall be:</b></p> <p>a) Bidder will take necessary precautions/ due care to protect the material at project site, while in their custody from any damage/ loss till the same is handed over to BHEL/ customer at project site for their scope of BALANCE OF PLANTS (BOP) AS PER SCOPE</p>

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### MATRIX AND PLOT PLAN BATTERY LIMIT.

In case of damage/loss/theft of goods at any stage starting from “in transit” till final handing over to BHEL/ Owner (MPPGCL), the bidder will support BHEL for lodging claim with insurance company. Bidder has to submit incident report immediately after incident occurred along with all required supporting documents/proofs to BHEL. Also lodging FIR with police department as applicable shall be in the scope of bidder. Insurance claims are to be lodged by BHEL. Responsibility of completing all formalities with Police department & Insurance surveyor will be with bidder along with BHEL.

- b) In case the claim is not honoured by the insurance company for the lapses/ negligence/ failure of bidder/ any other reason, the bidder has to arrange for repair/replacement of such items without any cost implication to BHEL.
- c) The amount received by BHEL from Insurance company against Insurance claims lodged shall be passed on to the Bidder. In cases where, BHEL is unable to receive the full cost from Insurance company against any claims, the balance including deductible franchise wherever applicable, shall be borne by bidder and shall repair/supply/replenish/services/correction of the material or equipment.
- d) It will be responsibility of the bidder to replenish the items lost/ damaged in time without hampering the schedule of work and without waiting for settlement of insurance claim. Amount received from the underwriters on settlement of insurance claim shall be passed on to the bidder as and when available.
- e) The bidder shall send Prior Dispatch intimation to the Insurance agency about the value of consignment, dispatch details, along with copy of invoice, LR / RR, Packing List/ delivery Challan, e-way bill etc. indicating the items dispatched (with their weights). A copy of the above intimation shall also be sent by the bidder to BHEL. Failure in doing so, if results in the rejection of claim by the underwriter shall be the sole responsibility of the bidder and any loss due to this shall be made good by the bidder at its own cost.
- f) Details of insurance policy and contact details of insurance company shall be provided to the bidder after placement of order.
- g) It is the entire responsibility of the bidder to insure their workmen against accident and injury while at work as required by the relevant rules and to pay compensation, if any, to their workmen as per statutory act. Bidder shall also insure their staff against accident/ injury with Workmen's compensation policy, group personal insurance, etc., as may be applicable.
- h) Bidder shall take insurance covering for all materials (excluding plant material), tools &

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	plants, manpower, workers, etc., required to be provided & deployed for the job by the bidder.
i)	These insurance covers have to be taken prior to start of work and they shall make available the policy to Construction Manager, BHEL for necessary verification before start of work. However, irrespective of such verification/ acceptance, sole responsibility to maintain adequate insurance cover at all times during the period of contract shall lie with the bidder. Regarding aforesaid insurance cover, bidder shall directly deal with the insurance company for all matters regarding the insurance in his scope.
j)	Bidder shall timely intimate ODC Consignment detail to BHEL immediately after receipt of LOI and dispatches/ discrepancy during contract operation, to the underwriter. The name of the underwriter and Policy No shall be intimated in due course of time.
k)	Insurance as applicable for field work such as third-party liability, workmen compensation, bidder's own Tools & Plants and automobile shall be arranged by the bidder (and cost of such insurance shall be included in the quoted price), which shall include <b>but not limited to the following:</b>  1) Workmen's Compensation Insurance: This insurance shall protect the Contractor against all claims applicable under the Workmen's Compensation Act, 1948 (Government of India). This policy shall also cover the Contractor against claims for injury, disability disease or death of his or his Sub-Contractor's employees, which for any reason are not covered under the Workmen's Compensation Act, 1948. The liabilities shall not be less than the following: Workmen's Compensation: As per Statutory Provisions Employee's Liability : As per Statutory Provisions  2) Comprehensive Automobile Insurance: This insurance shall be in such a form to protect the Contractor against all claims for injuries, disability, disease and death to members of public including the Employer's men and damage to the property of other arising from the use of motor vehicles during on or off the Site operations, irrespective of the Ownership of such vehicles. The liability covered shall be as herein indicated: Fatal Injury : Rs.100,000 each person : Rs.200,000 each occurrence Property Damage: Rs.100, 000 each occurrence  3) Comprehensive General Liability Insurance:

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	<p>The insurance shall protect the Contractor against all claims arising from injuries, disabilities, disease or death of members of public or damage to property of others, due to any act or omission on the part of the Contractor, his agents, his employees, his representatives and Sub-Contractors or from riots, strikes and civil commotion.</p> <p>The hazards to be covered will pertain to all the Works and areas where the Contractor, his Sub-Contractors, his agents and his employees have to perform work pursuant to the Contract.</p> <p>The above is only illustrative list of insurance covers normally required and it will be the responsibility of the Contractor to maintain all necessary insurance coverage to the extent both in time and amount to take care of all his liabilities either direct or indirect, in pursuance of the Contract.</p>
3.17	<p>It is the entire responsibility of the bidder to insure their workmen against accident and injury while at work as required by the relevant rules and to pay compensation, if any, to their workmen as per statutory act. The bidder shall also insure their staff against accident/ injury with Workmen's compensation policy, group personal insurance, etc., as may be applicable. Lodging and settlement of the claim shall be the responsibility of the bidder.</p>
3.18	<p><b>Setting Up of Civil Quality Laboratory:</b></p> <p>BHEL shall set up centralised civil quality laboratory in the close vicinity of the work site wherein routine test shall be performed by the service provider for all civil contractors working for the project. The civil lab building and the testing equipment shall be <b>excluded</b> from the <b>BOP bidder's scope</b>.</p> <p><b>Sampling of all construction materials, cube casting for concrete (required number of cubes to be arranged by contractor), etc. shall be carried out by contractor,</b> transported to the laboratory and handed over to the service provider of the centralized laboratory for routine testing and documentation.</p> <p>All field test like slump test (at batching plant/ field), soil test for compaction (MDD), test for road work, etc. shall be carried out by the contractor without any extra cost to BHEL.</p> <p>In case, third party testing related to the scope of work is required to be conducted for any reason whatsoever, shall be arranged/conducted by the contractor without any extra cost to BHEL.</p> <p>Contractor shall depute their representative QA/QC Engineer and Supporting Staff at site/lab during testing and documentation, etc. for satisfactory conductance of the routine test.</p> <p>In view of above scope matrix for the routine testing, contractor does not absolve from their responsibility for satisfactory performance of the work done as per terms and conditions of the contract.</p>

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3.19	<p><b>Project Management &amp; Co-ordination:</b></p> <p>As part of the overall project management activity, bidder shall be responsible for proper co-ordination of erection activities during various phases of execution of the contract. Bidder shall identify an experienced person designated as construction manager, with whom BHEL shall interact on matters related to execution of the contract. The construction manager shall be the single point contact person on behalf of bidder. BHEL shall interact with the construction manager only on all matters on co-ordination between BHEL and the bidder.</p> <p>Bidder shall confine all field operations to those works which can be reformed without subjecting the equipment and materials to adverse effects, during inclement weather conditions, like monsoon, storms, etc and during other unfavourable construction conditions. No field activities shall be performed by the bidder under conditions which might adversely affect quality &amp; efficiency thereof, unless special precautions or measures are taken by the bidder in proper and satisfactory manner in the performance of such works and with the concurrence of the engineer. Such unfavourable construction conditions in no way relieve the bidder of their responsibility to perform the works as per the schedule.</p> <p>Bidder shall supply all skilled workmen like welders, gas cutters, electricians, riggers, erectors, fitters, instrument machines etc, in addition to other skilled, semi-skilled and unskilled workmen required for all the works of handling and transportation from site store to erection site, erection, testing and commissioning contemplated under this specification. Only fully trained and competent manpower with previous experience on the job shall be employed. They shall hold valid certificates wherever necessary. BHEL reserves the right to decide on the suitability of the workers and the other personnel who will be employed by the bidder. BHEL reserves the right to insist on removal of any employee of the bidder at any time, if they find him unsuitable and the bidder shall forthwith remove him.</p> <p>The supervisory staff employed by the bidder shall be technically qualified and experienced in the area of work. They shall ensure proper out turn of work and discipline on the part of labour put on the job by the bidder and in general see that the works are carried out in a safe and proper manner and in coordination with other labour and staff employed directly by BHEL or other agencies' of BHEL and BHEL's client/ consultant.</p> <p>Bidder shall also furnish daily labour report showing by classification the number of employees engaged in various categories of work a progress report of work as required by BHEL engineer.</p> <p>The work shall be executed under the usual conditions affecting major power plant construction and in conjunction with numerous other operations at site. Bidder and his personnel shall co-operate with other personnel, and other bidders, coordinating his work</p>
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	<p>with others and proceed in a manner that shall not delay or hinder the progress of work as a whole.</p> <p>Bidder's supervisory staff shall execute the work in the most substantial &amp; workman like manner within stipulated time. Accuracy of work and aesthetic finish are essential part of this contract. Bidder shall be responsible to ensure that assembly &amp; workmanship conform to the dimensions &amp; tolerance given in the drawing/ instruction given by BHEL engineer from time to time.</p> <p>It is the responsibility of the bidder to engage his workman in shifts or on overtime basis for achieving the target set by BHEL during erection, commissioning and testing period. Bidder's quoted rate shall include all these contingencies.</p> <p>For rendering commissioning assistance during running of the unit till handing over of the set, dedicated team along with an exclusive supervisor need to be deployed by the bidder to attend the incidental works of commissioning as per the instruction of BHEL commissioning engineer. They shall be equipped with all necessary hand-tools to attend all the incidental works during commissioning.</p>
3.20	<p><b>Mode of Dispatch</b></p> <p>Equipment to be dispatched by road/ rail/ air/ Sea on door delivery basis. Consignee copy of LR to be sent with consignment.</p> <p><b>Note:</b> It is Vendor's responsibility to ensure availability of trucks/ mode of transport well in advance for dispatch of material to meet contractual delivery requirement.</p> <p>The bidder shall be responsible for obtaining, if necessary, approvals from the authorities for transportation of the Plant and Equipment and the bidder's Equipment to the Site. The Contractor shall indemnify and hold harmless to the BHEL/ Owner (MPPGCL) from and against any claim for damage to roads, bridges or any other traffic facilities that may be caused by the transport of the Plant and Equipment and the bidder's Equipment to the Site.</p>
3.21	<p><b>Watch &amp; Ward</b></p> <p>The bidder shall be responsible for Security of all equipment in his custody supplied and brought by him / issued by BHEL against pilferage, damage, etc. The bidder shall also be custodian of the items installed, operated and maintained by him, till handing over.</p>
3.22	<p><b>Inspection Agency</b></p> <p>Inspection shall be carried out by Owner (MPPGCL) / Owner's consultant/ BHEL/ Third Party Inspection Agency based on the inspection schedule/ category as per approved QAP/ categorization plan/ document.</p> <p>Bidder shall give inspection call in line with approved QAP/ hold points, to Owner (MPPGCL) / Owner's consultant /BHEL/Third Party Inspection Agency with an advance notice of 15 working days (for indigenous items) and 30 working days (for imported items) for participation in inspection/ Joint inspection on the proposed date.</p>

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	<p>During the inspection, if the equipment's are found to be not ready for inspection, all expenses incurred by BHEL / Owner (MPPGCL) /Consultant / Inspection Agency, on such planned visit will be recovered from bidder. Therefore, bidder to ensure readiness of equipment in all respect before the inspection.</p> <p>No item / equipment's shall be dispatched without obtaining Material Dispatch clearance certificate from BHEL / Owner (MPPGCL) irrespective of inspection categories.</p> <p>Inspection calls are to be raised by the bidder through BHEL Inspection portal <a href="https://cqir.bhel.in/">https://cqir.bhel.in/</a> or any other portal/ method as instructed by BHEL from time to time.</p>
3.23	<p><b>Inspection and Testing at Contractor's Premises</b></p> <p>a) BHEL/ Owner (MPPGCL) nominated Inspection Agency shall have at all reasonable times access to bidder's premises or works and shall have the power at all reasonable times to inspect drawings of any portion of the work or examine the materials and workmanship of the plant/ equipment/ stores during their manufacture, and if part of the plant/ equipment/ stores is manufactured at other premises, the Bidder shall arrange for inspection, examination and testing by the Inspection Agency as if the plant/ equipment/ stores is manufactured on the Bidder's premises.</p> <p>Such inspection, examination and testing by itself shall not relieve the Bidder from any obligation under the Order/ Contract. Non-conformance from the contract specifications shall be reported by the Bidder.</p> <p>b) Bidder shall give Inspection Agency reasonable notice of any material being ready for testing and the Inspection Agency shall (unless the inspection of tests is voluntarily waived) attend at the Bidder's premises within seven (7) days of the date on which the material is notified as being ready. All standard shop tests, physical and chemical tests required by the standards or as may be prescribed or approved as per Order/ Contract shall be conducted by the Bidder. BHEL/ Owner (MPPGCL) reserves the right to waive any of the above tests requirements and to prescribe new tests, if found necessary, to complete the work so as to conform to the best practices. Bidder shall forthwith forward to the Inspection Agency, duly certified copies of the test certificates in quadruplicate, for approval. Further copies of the shop test certificates shall be bound with the instruction manuals referred to in "Bidder's documents, drawings and instruction manuals".</p> <p>c) Where the Order/ Contract provides for tests/ inspections at the premises or works of the Bidder or any sub-contractor, the Bidder, except specified otherwise, shall provide free of charge such assistance, labour, materials, electricity, fuel, water, stores, apparatus, measuring instruments and test equipment including any other facilities as may be reasonably required to carry out such tests efficiently.</p> <p><b>Inspection Measuring and Test Equipment's</b></p>

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	<p>a) Inspection Measuring and Test Equipment (IMTE) whether used by the Bidder or sub-contractor shall be calibrated, maintained and controlled. Calibration shall be valid and IMTE maintained in sound condition during usage.</p> <p>b) In addition to above, Bidder shall ensure the following:</p> <ul style="list-style-type: none"><li>i. Measurement uncertainty is known and consistent with required measurement capability of the IMTE.</li><li>ii. Selection of IMTEs is compatible with the necessary accuracy and precision of required measurement.</li><li>iii. IMTEs are calibrated at the required intervals against certified equipment having known valid relationship to nationally recognized standards, at recognized calibration labs.</li><li>iv. Calibration records are available and traceable to the particular IMTE.</li><li>v. In case, during recalibration, the IMTE is found out of calibration, report on action taken to validate the previous results along with both calibration records of the IMTE to be furnished to Inspection Agency.</li><li>vi. IMTEs are stored, handled and preserved such that accuracy and fitness are maintained and safeguarded from adjustments.</li></ul> <p><b>Note</b> -BHEL decision on acceptability of the product in such cases shall be binding.</p> <p>2) Responsibility of usage of valid and calibrated IMTEs by his sub-contractor(s) shall be of the Bidder.</p> <p>3) In case, calibration records are required by BHEL, copies of the same shall be furnished.</p> <p>Bidder shall be fully responsible for the Quality of products supplied by sub-contractors.</p>																		
3.24	<p>i) The Owner (MPPGCL)'s/Owner's specification, General Specifications/Requirements, Amendments, Corrigendum, Clarifications to Pre-bid &amp; Post-bid queries and BHEL-HSE manual are part of this specification and shall be read in conjunction with this TCC along with enclosed under <b>ANNEXURE-1</b>.</p> <p>Bidder shall submit a signed copy of this Tender Enquiry Specification along with all enclosures as Technical Offer with the Bid without any Deviation.</p> <p>ii) Bidder shall carefully read all the NIT document mentioned under <b>ANNEXURE-1</b> and specifically following Chapters from Owner (MPPGCL)'s document and its corresponding clarifications and amendments:</p> <table><tr><th>Sl No.</th><th>Description</th><th>No. of pages</th></tr><tr><td>1</td><td>CoverandIndex</td><td>6</td></tr><tr><td>2</td><td>IFB</td><td>5</td></tr><tr><td>3</td><td>Appendix-I to IFB</td><td>28</td></tr><tr><td>4</td><td>InstructiontoBidderSectionII</td><td>43</td></tr><tr><td>5</td><td>Section-III BDS Part1</td><td>9</td></tr></table>	Sl No.	Description	No. of pages	1	CoverandIndex	6	2	IFB	5	3	Appendix-I to IFB	28	4	InstructiontoBidderSectionII	43	5	Section-III BDS Part1	9
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46	Corrigendum 8B Sec-VII (Rev.01) (Forms & Procedure)	1478
47	Corrigendum9	1
48	Corrigendum10	1
49	Corrigendum11	1

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50	Corrigendum12	1
51	Corrigendum13	1
52	Corrigendum 14A Notice_dtd._29.08.2024	1
53	Corrigendum 14 B Amendment_01 to Technical Specification	188
54	Corrigendum 14 B Clarification_01 to Commercial Part	67
55	Corrigendum 14 B Clarification_01 to Technical Part	191
56	Corrigendum 14 B Commercial_Amendment_02	25
57	Corrigendum 14 C Annexure TG-01 Satpura 1x660MW	6
58	Corrigendum 14 C Annexure-Switchyard	116
59	Corrigendum 14 C Annexure-V (Revised LD)	4
60	Corrigendum 14 C Annexure-VI (Land for vender's site office, store yard etc.)	1
61	Corrigendum 14 C C&I Annexure-01(SUB-SECTION-IIIC-07)	7
62	Corrigendum 14 C CIVIL ANNEXURES (R)	15
63	Corrigendum 14 C ELECT SINGLE LINE DIAGRAM-REV 01	1
64	Corrigendum 14 D MH ANNEXURES	32
65	Corrigendum 14 D SG ANNEXURES	124
66	Corrigendum 14 D WS ANNEXURES	2
67	Corrigendum 14 E FR_[Vol-1]- 1x660MW_SCU_at_STPS_Sarni_MP	567
68	Corrigendum 14 E FR_[Vol-2]- 1x660MW_SCU_at_STPS_Sarni_MP	420
69	Corrigendum 14 E FR_[Vol-3]- 1x660MW_SCU_at_STPS_Sarni_MP	336
70	Corrigendum 14 E FR_[Vol-4]- 1x660MW_SCU_at_STPS_Sarni_MP	584
71	Corrigendum 14 E FR- for_Intake_Pump_House_at_STPS_Sarni_MP	58
72	Corrigendum15	1
73	Corrigendum 16- Notice dtd 07-10-2024	1
74	Corrigendum 16- Amendment-02_Technical_specification	7
75	Corrigendum 16- Annexure- B to Amendment-02 Tech Specification	2
76	Corrigendum 16- Annexure-A to Amendment-02 Tech. Spech (D-1-12 (E) SEISMIC DESIGN CRITERIA)	10
77	Corrigendum 16 - Clarification No. 02	15
78	Corrigendum 16 Existing Ash Dyke	1
79	Corrigendum 16 GA of conveyor-5C	3
80	Corrigendum 16 GA of conveyor-7E	2
81	Corrigendum 16 Google Maps (Ash Corridor)	1
82	Corrigendum 16 APPENDIX – 1 (REV. 01)	29
83	Corrigendum 16 APPENDIX – 4 (REV.01)	14
84	Corrigendum 16 Appendix-II (REV.01) to BDS	8
85	Corrigendum 16 Commercial_Amendment_03	5
86	Corrigendum 16 Schedule-13	1

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	87	Corrigendum17	1
	88	Corrigendum 18 Notice dtd 14.10.2024	1
	89	Corrigendum 18 Amendment-03_Technical_specification	1
	90	Corrigendum 18 Appendix-III to Amendment-03_Technical_specification	10
	91	corrigendum_19_ExtensionInTenderDates (1)	1
	92	Corrigendum_20	1
	93	Corrigendum_21	1
3.25	<p>Bidder to note that, for the purpose of Owner (MPPGCL) conditions which requires item/component (such as DDCMIS, VMS) of <b>same make</b> to be used across various packages/system throughout the power plant. DDCMIS, VMS and their HMI &amp; LVS for various packages will be free issued items to BOP Vendor by BHEL. However, Bidder has to provide relevant engineering inputs. Handling, Storage, Erection, Testing &amp; Commissioning of aforementioned items shall be in the scope of the BOP Bidder, however BHEL shall provide necessary assistance for the same.</p> <p><b>Profibus System</b> (along with profibus hardwares, cables and associated instruments) for BOP area shall be in BOP vendor scope.</p> <p>BOP vendor to place PO for Profibus system for BOP area considering the clause 4.00 of Standardisation of Hardware of TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC NO.: CW-CM-11233-C-O-M-001 and after confirmation from BTG vendor for compliance of the same.</p>		
3.26	<p>Though DCS will be a free-issued item to bidder by BHEL, Bidder's presence is required for at least 2 Man days (excluding travel time) at BHEL-EDN, Bangalore during FAT of DCS for each BOP package for certifying correctness &amp; completeness of implementation of Control logic. All the expenses like boarding, lodging and travel, Air fare etc. shall be deemed included within the bidder's cost. Bidder shall be informed by BHEL for his presence during FAT at BHEL-EDN, Bangalore with prior intimation of minimum 7 (Seven) days.</p>		
3.27	<p>Bidder shall furnish Electrical load details within one month from date of LOI.</p>		
3.28	<p>It is the responsibility of bidder to carry out complete engineering, documentation for the subject package as per Scope Matrix, Battery Limit of Plot Plan given in <b>ANNEXURE-2</b>. Please note that bidder shall be responsible for the performance and guarantee of complete system and all the other equipment/ items/ systems in this package.</p> <p>Complete Detailed Engineering Drawings, Calculations, Selection of Components etc. shall be reviewed and approved by BHEL/ Owner (MPPGCL) during Detail Engineering. All such Detailed Engineering Drawings, Calculations, Selection of Components shall be documented/stored/archived at BHEL.</p>		
3.29	<p>Bidder to note that completion of engineering within the schedule of BHEL with Owner (MPPGCL) is a major milestone, so bidder shall put all endeavour to complete the same and shall do the sequential supplies in order to meet the overall project schedule.</p>		
3.30	<p>Bidder shall ensure at all times that his work area and approach / access roads are free from accumulation of water, so that the materials are safe and the erection/ progress schedule are not affected. No separate claim in this regard shall be admitted.</p>		

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3.31	Bidder to comply with the BATTERIES (MANAGEMENT & HANDLING) RULES-2001, BATTERIES (MANAGEMENT AND HANDLING) AMENDMENT RULES-2010 and E- WASTE (MANAGEMENT) AMENDMENT RULES, 2018 enclosed as <b>ANNEXURE-8</b> .
3.32	<b>Training of Personnel:</b> Contractor shall provide training for Systems/ Facilities / Equipment falling under BOP Vendor scope of work as indicated in Part C (BID DOC NO.: CW-CM-11233-C-O-M-001), Section VI of technical specification attached as Annexure-1. The lodging and boarding of the Owner's (MPPGCL) personnel shall be at the cost of Bidder. The Bidder shall make all necessary arrangements towards the same.
3.33	During detail engineering, bidder has to submit all the drawings/documents and any other documentation through Document Management System (DMS) like PEDM, Wrench portal, etc. Bidder would be provided access to the DMS for drawing. /doc. approval and adequate training manuals will be available to bidder; which bidder has to get conversant with. Necessary IT related information will have to be collected by bidder after award of contract, by coordinating with BHEL-IT team. All the documentation flow should happen in this document management system only.
3.34	Any national and international codes and/or standards used in the design of the plant and equipment shall be shown by the bidder to the Employer as and when required during contract period. Cost of same shall be deemed included in the total cost quoted by the bidder.
3.35	The design, engineering, manufacture, inspection and testing of the equipment shall comply with all the currently applicable statutes, regulations and safety codes in the locality where the equipment is to be installed and shall also conform to the latest edition of Indian and other international standards and codes. Nothing in this specification shall be construed to relieve the bidder of the required statutory responsibility. In case of any conflict & ambiguity in the standard to be followed the decision of BHEL/ Owner (MPPGCL) shall be final and binding.
3.36	Bidder shall strictly follow and adhere to the guidelines laid down as Safety Rules in the BHEL/ owner (MPPGCL) guidelines enclosed as <b>ANNEXURE-9</b> in conjunction with ANNEXURE-B OF GENERAL CONDITIONS OF CONTRACT, SECTION-IV, BID DOC NO.: CW-CM-11241-C-O-M-001 as attached in <b>ANNEXURE-1</b> . In addition, implementation of all Safety Plans/Guidelines prepared or issued by BHEL during execution for HSE shall be the responsibility of bidder in areas of his scope of work. Further, the applicable provisions of BHEL "HSE Plan for Site Operations by Sub-contractors "Manual, as decided by BHEL Project Director shall also be adhered by the bidder.
3.37	Bidder shall visit the site to familiarize with the BALANCE OF PLANTS (BOP) AS PER SCOPE MATRIX AND PLOT PLAN BATTERY LIMIT enclosed as annexures along with this Technical conditions of contract (TCC) and site constraints before submitting the complete offer to BHEL in all respects. No issues arising out of site condition or layout constraints shall be



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	entertained later on during detail engineering and any modification required due to site condition or layout constraints shall be done by bidder without any cost implication to BHEL.
3.38	Cleaning of any debris produced by the bidder during execution of work shall be done immediately at each front. Bidder to follow 5-S system on daily/weekly basis
3.39	Periodic checks for stored items such as rotation of bearings ends, belt drum and other condition checks shall be the responsibility of bidder. The objective is to ensure that the equipment's/ items are not damaged due to long storage.
3.40	Bidder shall make their own arrangements well in advance for erection equipment such as crane, hydra, Farhana, trolley, truck, trailer, gantry, all tools & tackles, via chain pulley block, wire ropes, grinding machine, welding machines (including single phase portable welding machine), NDT, cutting sets, coupler, pulling & lifting tools such as slings, D-shackles, winches, etc. including precision measuring instruments that are required for E&C purposes at no extra cost to BHEL.
3.41	Bidder shall submit weekly engineering progress reports in BHEL's format and depute full project team for attending all project review meetings called by BHEL/ Owner (MPPGCL)'s Consultant / Owner (MPPGCL) without fail.
3.42	Finalisation of Sub-vendor by bidder is subjected to Owner (MPPGCL)'s approval. bidder will submit all requisite supporting documents of sub-vendors for approval by Owner (MPPGCL). Any sub-vendor approval not approved by Owner (MPPGCL) or going beyond after giving sufficient time shall not be considered for procurement and in such event, bidder will go ahead with procurement from only approved sub-vendors in line with <b>Appendix-5</b> (TCC Clause No. 3.24 SI No.) attached in <b>ANNEXURE-1</b> without any price implication to BHEL. Delay in any new vendor approval from Owner (MPPGCL) shall not be considered for delay analysis.
3.43	<p>Bidder shall furnish the L-2 project schedule indicating various milestones before start of work.</p> <p>Further, Bidder shall submit the detailed L2 schedule for completion of entire scope of work, in line with the L1 schedule. The detailed L2 schedule shall cover details like basic engineering, detailed engineering, manufacturing, inspection &amp; supply, erection, testing &amp; commissioning etc. The L2 schedule shall be reviewed by BHEL and shall be mutually agreed. Bidder to strictly adhere to the mutually agreed L2 schedule. In case of non-compliance to the agreed schedules/ milestones, then it would be presumed that bidder is not fulfilling contractual obligations. In such cases, BHEL reserves the right to take suitable actions as per the provisions of the contract.</p>
3.44	Bidder to ensure sufficient manpower throughout the contract for carrying out engineering and erection & commissioning activities in parallel at site.
3.45	<p><b>PROJECT MANAGEMENT CONSULTANCY (PMC)</b></p> <p>BHEL shall deploy Project Management Consultancy (PMC) Team. Bidder shall engage with BHEL-Team and provide required support for implementation of the same. Detail instructions for the same shall be provided by BHEL during execution of the order/ contract. The bidder shall comply with the same. Bidder shall depute dedicated experienced manpower conversant with the system for usage of PMC and proper implementation.</p>



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3.46	Bidder to comply any statutory issues raised at site, which pertains to the area / work under bidder's scope.
3.47	Bidder shall furnish the detail packing /shipment box details with information like packing box size, type of packing, weight of each consignment, sequence no. of dispatch, no. of consignment for each deliverable item against each billing break up units/ billable blocks. Without these details, the BBU shall not be approved during detail engineering as per Chapter-XIX.
3.48	All items/equipment shall be dispatched in properly packed condition (i.e. no item shall be dispatched in loose condition such that it becomes difficult to store/identify its location at site at later stage).
3.49	All critical items like Idlers, VFD, Electrical / C&I Panels Items, Lighting Fixtures, Copper Conductor, Deluge Valves Critical loose items which normally get misplaced / pilfered at site must be sent to site, preferably in containers.
3.50	During the operation period of BOP Systems, if any Steam / Water/ Coal/ Ash/ Biomass etc. leakage or any kind of major or minor break-down happens in BOP Systems, then necessary repair shall be done by the bidder promptly and it shall be in bidder' scope of work without any additional cost implication to BHEL till handover of system.
3.51	All the equipment shall be of robust construction, suitable for operation in dusty, humid and outdoor operation.
3.52	Material of construction (MOC) for all equipment/components if not mentioned in Owner (MPPGCL)'s NIT spec shall be subject to BHEL/ Owner (MPPGCL)'s approval during detail engineering. Accordingly, bidder shall consider MOC for all equipment/component as per best engineering practice, global standard and global references.
3.53	<p>Quality assurance and inspection of equipment shall be as per Owner (MPPGCL)'s specification. However, modalities of inspection (Stage, Final, In-process) shall be finalized during detail engineering after submission of quality assurance plan (QAP).</p> <p>Bidder shall depute continuously and maintain requisite sufficient nos. of engineers and supervisors, at site for civil construction, supervision of E&amp;C, coordination with BHEL/MPPGCL and commercial activity for the BALANCE OF PLANTS (BOP) AS PER SCOPE MATRIX AND PLOT PLAN BATTERY LIMIT enclosed as annexures along with this Technical conditions of contract (TCC) Package.</p>
3.54	<p>Bidder's staff shall necessarily comply and ensure following at site:</p> <ul style="list-style-type: none"><li>a) Correctness checking during civil construction as per mechanical drawings.</li><li>b) Frequent condition checks of stored material and its transportation to erection front.</li><li>c) Stage wise erection of all Mechanical, Electrical and C&amp;I equipment &amp; accessories.</li><li>d) Arranging technical specialist for supervision of specialized jobs from respective OEMs.</li><li>e) Measurement Protocols</li><li>f) Preparation of Protocols</li><li>g) Any Protocols as per FQP</li><li>h) Any other activity required for successful E&amp;C at site</li></ul>

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3.55	<p>Bidder shall necessarily comply and ensure following w.r.t <b><u>Testing, Trial Run &amp; Commissioning activities:</u></b></p> <ul style="list-style-type: none"><li>a) Initiate start-up and commission the complete BOP Systems (all mechanical, electrical &amp; C&amp;I equipment and machine as a whole) in an integrated manner under his sole responsibility.</li><li>b) Perform the required adaptation, adjustment and hot run the equipment to demonstrate its guaranteed capacity.</li><li>c) Rectify the defects observed during commissioning under his sole responsibility without any additional cost implication to BHEL.</li><li>d) Results of start-up tests and commissioning etc. will be recorded jointly by the bidder and Owner (MPPGCL) / BHEL.</li></ul>
3.56	<p>Bidder shall necessarily comply and ensure following w.r.t <b><u>Post-Commissioning, PG testing, Reliability Run Test of the equipment /machine and preparation and submission of signed test protocols:</u></b></p> <ul style="list-style-type: none"><li>a) Submit all final documents in compliance with the provisions of this specification &amp; amendments.</li><li>b) Submit test procedures, and test evaluation methods prior to taking up Performance Tests etc.</li><li>c) Offer the machine for conducting Performance Guarantee Tests, Reliability Run Test etc.</li><li>d) Carry out the PG tests and Reliability Run Test etc. under their instruction and take full responsibility of the operation.</li><li>e) Supply all consumables, change parts, special tools and tackles and commissioning spares.</li><li>f) Undertake O&amp;M Services (as described and required for the subject package).</li></ul> <p><b>Note:</b></p> <ul style="list-style-type: none"><li>1) Bidder should have met, to the satisfaction of Owner (MPPGCL), all the observation, if any, contained in the Preliminary Acceptance Certificate.</li><li>2) The performance tests for all plant equipment will be carried out to satisfy all operating parameters as per the relevant clauses of the contract technical specification for the equipment under consideration.</li><li>3) It shall be the responsibility of the Bidder to ensure readiness / availability of all Systems / Equipment of their scope and to provide all the necessary support required for the Trial Operation, Commercial Operation Declaration and PG Test of the Unit as a whole.</li><li>4) Acceptance Tests shall mean such tests as prescribed in specifications and/ or tests mutually agreed upon by BHEL and Bidder, to be performed by Bidder during the process at vendors/ sub vendors works and after/ during the erection/ commissioning of equipment to establish its satisfactory operation as per specifications.</li></ul>
3.57	<p>It shall be the sole responsibility of bidder's staff to do measurement and other protocols, prepare, maintain (record keeping) and follow all stage wise erection &amp; commissioning</p>

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	protocols in line with FQP and Owner (MPPGCL)'s requirement. Also, getting the protocols signed by all concerned agencies - BHEL's Engineer and Owner (MPPGCL)/ Owner (MPPGCL)'s Consultant shall be the responsibility of bidder's staff. Special care shall be taken for all payment linked protocols so that it is ensured that such protocols are signed well within time and no payment to BHEL is held up by Owner (MPPGCL) on account of these protocols.
3.58	<p>Bidder to ensure that there shall be no loss of erection time due to any of the following reasons:</p> <ul style="list-style-type: none"><li>a) Faulty/ Defective supply of parts / equipment</li><li>b) Improper packing and transportation</li><li>c) Any short supply/ delay in supply</li><li>d) Any mismatch/ wrong supply</li><li>e) Non-availability of replacement item</li><li>f) Any site modification, if it is due to mismatch between bidder's GA, detail drawings. etc.</li></ul>
3.59	<p>Bidder shall take care of following points:</p> <ul style="list-style-type: none"><li>a) In general, BHEL's working hours/Holidays/weekly off at site shall be followed by bidders and it shall be informed time to time by BHEL's Construction Manager. Accordingly, bidder to align their site staff's working hours/Holidays/weekly off at site so that there is no loss of work and delay in project milestones &amp; targets.</li><li>b) BHEL's Construction Manager (at his sole discretion) may require bidder's services on weekly off/ holidays due to project exigencies; bidder to extend necessary support required during such events.</li><li>c) While going on leave, bidder's Site-In charge shall inform &amp; take permission from BHEL's Construction manager.</li><li>d) Suitable replacement shall be ensured during any personal emergency to the bidder's executive deputed at site at any given point of time and all such changes shall be brought to the notice of BHEL's Construction Manager.</li></ul>
3.60	<p>Bidder shall necessarily comply and ensure following w.r.t <b><u>Storage &amp; Preservation</u></b> for main supply material &amp; mandatory spares at site:</p> <ul style="list-style-type: none"><li>a) Prepare and submit the "Dispatch &amp; Receipt Reconciliation Report".</li><li>b) Make periodic condition checks for the safety of boxes/items during storage of main material, spares etc.</li><li>c) Maintain requisite inventory records.</li><li>d) Bidder has to keep the material properly as per approved FQP, Storage &amp; Preservation guidelines and storage work instructions (WI). In case bidder fails to adhere the above guidelines/storage WI and any consequential damages/missing items due to non-adherence of above guidelines/storage WI, no insurance claim will be entertained by BHEL and items shall be replaced by bidder without any cost implication to BHEL.</li><li>e) Monthly inspection report to be submitted by bidder to BHEL site-in charge / Construction Manager for storage and preservation of materials kept under closed / open stores as part of RAB. In case bidder fails to report the status in anyone of the</li></ul>

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	month, further any damages reported in the subsequent month will not be entertained by BHEL and entire item has to be supplied by bidder at their own cost.
3.61	<p><b>EXECUTION CLAUSES APPLICABLE FOR PACKAGE:</b></p> <ul style="list-style-type: none"><li>a) Receipt, unloading, storage of materials at site, security of the same round-the-clock &amp; loading / unloading /transportation of materials to different erection locations is included in the scope of the bidder. Necessary manpower for all these activities will be made available at site from the date of opening of site office until closure of the project.</li><li>b) All consumables required for the Execution of work are included in the scope of the contractor.</li><li>c) All material handling equipment like crane, batching plant, etc. are included in the scope of the contractor.</li><li>d) Providing tarpaulins, sleepers &amp; covering materials as required for protection of materials at temporary storage place is included in the scope of the contractor.</li><li>e) Contractor should have valid license to work in the state of project, if not, the same should be produced within one month of award of the contract.</li><li>f) Insurance as applicable for field work such as third-party liability, workmen compensation, bidder's own Tools &amp; Plants and automobile shall be arranged by the Bidder.</li><li>g) Contractor should follow all the labour laws as applicable at the state/place of work including payment of minimum wages fixed by state / central government.</li><li>h) Round-the-clock security for the temporary stores, at temporary storage place &amp; for the erected equipment till handing over to Owner (MPPGCL) (by a reputed agency) is in the scope of the Contractor.</li><li>i) Against any theft or loss of materials from the stores or from the erected equipment coordination with local police authorities lodging the FIR &amp; obtaining the receipt for the same.</li><li>j) Any material or Service to be issued / rendered by BHEL (unless specially stipulated to be free of cost / cost recoverable basis) to the contractor on their demands, the same shall be made available along with applicable overhead charges over and above the cost. BHEL shall not be responsible for any delay due to this reason and delay shall be to the bidder's account.</li></ul>
3.62	On completion of erection of any major items along with its auxiliaries, the same shall be thoroughly inspected by the bidder together with BHEL/ Owner (MPPGCL)'s Engineers for correctness, completeness and acceptability for Pre-Commissioning Tests. Though the Owner (MPPGCL)'s Engineers associate themselves with such inspection, the responsibility for declaration for correctness, completeness and acceptability shall rest with the bidder and the pre-commissioning tests shall be carried out after such declaration. The pre-commissioning tests to be performed at site as well as necessary documentation and formats for the protocols to be signed during and after the tests shall be prepared by the bidder considering relevant Indian/International Manufacturer's standards as applicable and

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	finalized by the Owner (MPPGCL) sufficiently in advance through mutual discussions. On conclusion of satisfactory pre-commissioning tests of each equipment, the trial operation shall start consistent with parameters of the technical specifications.
3.63	SCOPE MATRIX AND PLOT PLAN BATTERY LIMIT is enclosed <b>Annexure-2</b> along with this Technical conditions of contract (TCC) for complete Scope of Work.
3.64	Bidder to refer <b>Annexure-7</b> in conjunction with Part C (BID DOC NO.: CW-CM-11233-C-O-M-001), Section VI of technical specification attached as <b>Annexure-1</b> regarding submission and requirement of 3D drawings for this package.
3.65	<p><b>ROYALTY/ SEIGNIORAGE CHARGES</b></p> <p>The Bid Price shall be inclusive of any Royalties and/or Seigniorage Fee and/or Cess and/or other charges payable on the quarried or mined metal, minerals, or minor minerals, as the case may be in respect of construction materials at the rate(s) prevailing as on seven (7) days prior to the date of Techno-commercial bid opening. Royalty / Seigniorage Charges shall be governed / applicable by as per the terms &amp; conditions of Owner (MPPGCL) Specification. In respect of “Materials obtained from excavation” terms &amp; conditions of Owner (MPPGCL) Specification shall be applicable.</p> <p>The bidder shall pay and indemnify BHEL/Owner (MPPGCL) against any default in payment of Royalties or Seigniorage Fee or Cess or other charges by the statutory authority/supplier/ agency from which the Contractor purchases soil/earth, sand, stone/aggregates, metals, minerals or minor minerals etc.</p>
3.66	<p><b>OPERATION &amp; MAINTENANCE (O&amp;M) Support</b></p> <p>The Operation and Maintenance of this EPC package till hand over of the project to Owner (MPPGCL) shall be in bidder’s scope and shall start only after completion of Integrated trial operation of system (as defined in contract).</p> <p>Bidder to ensure deputation of sufficient manpower for operation of the plants in shifts as per the site requirement. Bidders to note that all consumables/ tools tackles/ manpower required during the period of O&amp;M, shall be included in the scope of Bidder and no additional payment will be made by BHEL in this regard.</p>
3.67	Comprehensive <b>Annual Maintenance Contract/Services (AMS)</b> shall be for three (03) years after warranty period for various items, as per owner (MPPGCL) specifications, under the scope of BOP EPC Vendor.
3.68	The Bidder shall consult BHEL for any interface inputs required for the scope of work in this package. It shall be sole responsibility of Bidder for any re-work, modification arising out of any discrepancy/mismatch in any drawings or documents so as to obtain acceptance of Owner (MPPGCL)/ Owner (MPPGCL)’s Consultant.
3.69	Bidder shall co-ordinate with BHEL’s BTG Area vendor during E&C of BOP Systems.
3.70	<p><b>Others</b></p> <p>a) Bidders are requested to carefully examine and understand the specifications, scope of work / Scope Matrix &amp; Battery Limit etc. and seek clarifications, if required, to ensure that they have understood the specifications, scope of work. Bidder’s offer should not carry any sections like clarifications, interpretations and/ or assumptions.</p> <p>b) All the Tender Documents, addenda, corrigenda, BHEL clarifications etc. shall automatically become a part of the Order/ Contract after its finalization.</p>

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	<p>c) Orders/ Guidelines/ Circulars issued by various ministries/ authorities of Govt. of India as issued from time to time shall be applicable for this tender/ contract (even if issued before or after the bid submission end date) for provisions/ restrictions as given from time to time.</p> <p>d) This shall include but not limited to the provisions/ restrictions for E-invoicing, Preference to Make in India, Restrictions on Procurement from a country which shares a land border with India, MSME Guidelines and Government e-Marketplace and any other provision/ restriction.</p> <p>e) Bidder shall conduct the necessary Type Tests of the equipment in line with the requirement given in the <b>Annexure-1</b> of the Tender Document.</p>
3.71	<p><b>Dispatch Markings</b></p> <p>Each package/ Drum delivered under the Contract shall be marked by Supplier as per details listed below and such marking must be distinct and in English language.</p> <ol style="list-style-type: none"><li>1) Name and address of the consignee (to be intimated at the time of dispatch clearance)</li><li>2) Dispatched by: (Vendor name)</li><li>3) LR No. Package No./ Total Package No eg: 1 of N, 2 of N; where N=Total no of packages in a particular consignment.</li><li>4) Type of Supply: <b>Main equipment supply/ Commissioning Spares/ Mandatory Spares"</b> as the case may be. Besides above necessary, packing shall bear a special marking "TOP", "BOTTOM", "DO NOT TURN OVER", "KEEP DRY", "HANDLE WITH CARE", etc.</li><li>4) Compliance to Material Tracking System and Consignment Tracking System.</li></ol> <p>No item / equipment shall be dispatched without obtaining Material Dispatch clearance certificate (MDCC) from BHEL irrespective of inspection categories.</p> <p>The Contractor shall ensure that all the plant and equipment are suitably packed and protected to prevent damage or deterioration during its transportation to site, handling and storage at site till the time of its installation. The ownership of all such packing material shall stand transferred to the Owner (MPPGCL) upon dispatch of the plant and equipment.</p>
3.72	<p>E-Way bill is to be generated by the bidder/ bidder's sub-vendor for transport of materials to the Project site, same shall be arranged by the bidder.</p> <p>The Bidder shall be responsible for the issuance of e-way bill and other compliances relating to e-way bill as per GST law.</p>
3.73	<p>Bidders shall quote for the entire facilities on a "single responsibility" basis such that the total bid price covers all the Contractor's obligations mentioned in or to be reasonably inferred from the owner (MPPGCL) documents in respect of the design, manufacture, including procurement and subcontracting , delivery, construction, installation, commissioning, civil &amp; steel structural works (Site-Fabricated &amp; welded), Completion of the facilities and conductance of Guarantee tests for the facilities including supply of mandatory spares.</p>
3.74	<p>This includes all requirements under the Contractor's responsibilities for testing, pre-commissioning and commissioning of the facilities, conducting Guarantee tests and, where so required by the BHEL/Owner's documents, the acquisition of all permits, approvals and</p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - III: Scope of Work

	licenses, etc.; the operation, maintenance (as per scope) and training services and such other items and services as may be specified in the owner (MPPGCL) documents, all in accordance with the requirements of the General Conditions of Contract and Technical Specifications for BOP package as per tender document
3.75	Bidders shall note that the Main supply-plant and equipment (Ex-works) shall exclude all materials used in civil, building and other construction works, if any. All such materials shall be included and priced under Installation Services and civil works
3.76	Installation Services including Erection and Civil & Allied Works & structural works (Site-Fabricated & welded) shall include rates or prices for all labour, contractor's equipment, temporary works, materials, consumables and all matters and things of whatsoever nature, charges for insurance covers (other than BHEL insurance), charges for Safety Aspects/Compliance to Safety Rules including operations and maintenance services, the provision of operations and maintenance manuals, training of employer's personnel, etc., and other services, as identified in the Tender Documents/Owner's specifications, as necessary for the proper execution of the Installation Services and civil works including structure for BOP system.
3.77	<b>EXTRA/ ADDITIONAL ITEMS OF WORK</b>  No Extra/ additional claim of the bidder shall be given by BHEL beyond the contract value. However, in case of any reduction in price by owner due to any change in scope pertaining to the scope of work of bidder, same shall be completely passed onto the bidder on back to back basis. Further, if any Extra/ additional claim is received from Owner (MPPGCL) pertaining to the additional scope of work (which is beyond the existing scope) of bidder, 85% of the same shall be passed onto the bidder.
3.78	<b>Order of Precedence</b>  In the event of any ambiguity/conflicts amongst various documents, the order of precedence shall be as follows 1) Price Schedule 2) Scope Matrix & Battery Limit 3) Technical Conditions of Contract (TCC). 4) Owner (MPPGCL) Technical specifications, amendments & agreements etc. (Annexure-1) 5) IS Standard. 6) BHEL's General Conditions of Contract (GCC)
3.79	Gate passes for materials, workmen, tools and plants (T&Ps), and any other related items shall be issued in the name of the Prime Bidder or as may be instructed by the Owner/Customer. Notwithstanding the above, the Prime Bidder and its sub-agencies shall remain responsible for complying with all applicable statutory requirements, including but not limited to obtaining labour licences, ESIC, EPF, and any other mandatory registrations or approvals.
3.80	<b>Scope of Work of Consortium Bidder</b>



# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - III: Scope of Work

	<p>Where a bidder seeks qualification under Criteria B2 through a consortium arrangement, each consortium partner shall be responsible for executing the portion of the Works corresponding to the specific system for which it meets the qualifying requirements.</p> <p>Accordingly,</p> <ul style="list-style-type: none"><li>I. The consortium partner qualified for the Coal handling plant (CHP) shall execute the CHP scope of work as per Annexure to PQR,</li><li>II. The consortium partner qualified for the Ash handling plant (AHP) shall execute the AHP scope of work Annexure to PQR.</li><li>III. The consortium partner qualified for the NDCT system shall execute the NDCT scope of work Annexure to PQR.</li><li>IV. The consortium partner qualified for the DM plant/ Pre-treatment plant/ Effluent treatment plant shall execute the DM plant/ Pre-treatment plant/ Effluent treatment plant scope of work Annexure to PQR.</li></ul>																																				
3.81	<p>Following documents shall be referred during execution of contract for major heads of contract:</p> <table><tr><th>Sl</th><th>For</th><th>Refer to</th><th>Remarks</th></tr><tr><td>1.</td><td>Scope</td><td>As per SCOPE MATRIX AND PLOT PLAN BATTERY LIMIT in conjunction with scope of work in TCC and its Annexures for BOP systems</td><td>However, all work shall be done in accordance with terms and conditions and technical specifications of owner (MPPGCL)</td></tr><tr><td>2.</td><td>Exclusions &amp; Terminal Points</td><td>Scope Matrix &amp; Battery Limit</td><td></td></tr><tr><td>3.</td><td>Responsibility</td><td>Single point responsibility for entire scope of BOP system as per scope matrix</td><td></td></tr><tr><td>4.</td><td>Time Schedule</td><td>TCC</td><td></td></tr><tr><td>5.</td><td>Terms of Payment</td><td>TCC</td><td></td></tr><tr><td>6.</td><td>Advance</td><td>TCC</td><td></td></tr><tr><td>7.</td><td>Progressive payment</td><td>BBU to be finalized after award of Contract</td><td></td></tr><tr><td>8.</td><td>Technical Specifications</td><td>Owner (MPPGCL) Technical</td><td>In case of any ambiguity in technical</td></tr></table>	Sl	For	Refer to	Remarks	1.	Scope	As per SCOPE MATRIX AND PLOT PLAN BATTERY LIMIT in conjunction with scope of work in TCC and its Annexures for BOP systems	However, all work shall be done in accordance with terms and conditions and technical specifications of owner (MPPGCL)	2.	Exclusions & Terminal Points	Scope Matrix & Battery Limit		3.	Responsibility	Single point responsibility for entire scope of BOP system as per scope matrix		4.	Time Schedule	TCC		5.	Terms of Payment	TCC		6.	Advance	TCC		7.	Progressive payment	BBU to be finalized after award of Contract		8.	Technical Specifications	Owner (MPPGCL) Technical	In case of any ambiguity in technical
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# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - III: Scope of Work

			Specifications/Requirements	specifications of this NIT, Owner (MPPGCL) technical specifications bid document shall prevail
	9.	Liquidated Damages for Delay	TCC	
	10.	Liquidated Damages for Performance Parameter	Owner (MPPGCL) Functional Guarantee	
	11.	Auxiliary Power Consumption	TCC	
	12.	Functional Guarantee	Owner (MPPGCL) Specification	
	13.	Security Deposit and Retention	BHEL GCC	
	14.	Trial run/Initial Run/commissioning/PG test etc.	As per Owner (MPPGCL) specifications and conditions	
	15.	Construction Power/water	TCC	
	16.	Insurance	TCC	
	17.	Handing over	As per Owner (MPPGCL) specifications and conditions	
	18.	Closure of contract	BHEL GCC/guidelines in conjunction with Owner (MPPGCL) specifications and conditions	
	19.	Sub-QR	Owner (MPPGCL) Provenness Criteria	

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - IV: Time Schedule

4.0	TIME SCHEDULE																																												
4.1	<b>Zero date:</b> Date of Issuance of LOI shall be considered as the Zero Date for the Package.																																												
4.2	<b>Contract Period:</b> The contract period for completion of entire work under scope shall be <b>42 months</b> (Forty-Two Months) from the “START OF CONTRACT PERIOD” as specified earlier for completion of the entire work.																																												
4.3	<b>Complete Time Schedule:</b> After issue of LOI, Suggestive Milestones Schedule for BALANCE OF PLANTS (BOP) AS PER SCOPE MATRIX AND PLOT PLAN BATTERY LIMIT enclosed as annexures along with this Technical conditions of contract (TCC) to be followed:																																												
4.4		<table><tr><th>Sl. No</th><th>Description</th><th>Completion Time in months from the Zero Date</th></tr><tr><td>4.4.1</td><td>Priority Roads</td><td>3</td></tr><tr><td>4.4.2</td><td>Design &amp; Detail Engineering</td><td>10</td></tr><tr><td>4.4.3</td><td>Water Systems</td><td>27</td></tr><tr><td>4.4.4</td><td>Readiness of BOP System for Boiler Drainable Hydro Test</td><td>29 (M1)</td></tr><tr><td>4.4.5</td><td>NDCT</td><td>31</td></tr><tr><td>4.4.6</td><td>Completion of Dispatches (Excl Mandatory Spares)</td><td>32</td></tr><tr><td>4.4.7</td><td>Boiler Light Up</td><td>34</td></tr><tr><td>4.4.8</td><td>Readiness of CHP- BHP/AHP for Coal Firing</td><td>35</td></tr><tr><td>4.4.9</td><td>Readiness of BOP Systems for Coal Firing</td><td>37 (M2)</td></tr><tr><td>4.4.10</td><td>Synchronization of Unit</td><td>38</td></tr><tr><td>4.4.11</td><td>Full Load of Unit</td><td>40</td></tr><tr><td>4.4.12</td><td>Completion of Trial Operation &amp; PG Test</td><td>41</td></tr><tr><td>4.4.13</td><td>Completion of Facilities</td><td>42</td></tr></table>	Sl. No	Description	Completion Time in months from the Zero Date	4.4.1	Priority Roads	3	4.4.2	Design & Detail Engineering	10	4.4.3	Water Systems	27	4.4.4	Readiness of BOP System for Boiler Drainable Hydro Test	29 (M1)	4.4.5	NDCT	31	4.4.6	Completion of Dispatches (Excl Mandatory Spares)	32	4.4.7	Boiler Light Up	34	4.4.8	Readiness of CHP- BHP/AHP for Coal Firing	35	4.4.9	Readiness of BOP Systems for Coal Firing	37 (M2)	4.4.10	Synchronization of Unit	38	4.4.11	Full Load of Unit	40	4.4.12	Completion of Trial Operation & PG Test	41	4.4.13	Completion of Facilities	42	
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# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - IV: Time Schedule

4.5	Intermediate milestones:		
4.5.1	Two Major Intermediate Milestones are identified as M1 and M2 above.		
	Milestones	Activity	Schedule of completion from start of work
	M1	Readiness of BOP Systems for Boiler Drainable Hydro Test	29 Months
	M2	Readiness of BOP Systems for Coal Firing	37 Months
4.6	<b>Provision of Penalty in case of slippage of Intermediate Milestones:</b> In case of slippage of Two Major Intermediate Milestones, mentioned as M1 & M2 above, delay Analysis shall be carried out on achievement of each of these two Intermediate Milestones in reference to Form-14.		
4.6.1	In case of slippage of these identified Intermediate Milestones, Delay Analysis shall be carried out on achievement of each of these two Intermediate Milestones.		
4.6.2	In case delay in achieving <b>M1 Milestone</b> is solely attributable to the contractor, 0.5% per week of Executable Contract Value*, limited to maximum 2% of Executable Contract Value*, will be withheld.		
4.6.3	In case delay in achieving <b>M2 Milestone</b> is solely attributable to the contractor, 0.5% per week of Executable Contract Value*, limited to maximum 3% of Executable Contract Value*, will be withheld.		
4.6.4	Amount already withheld, if any against slippage of M1 milestone, shall be released only if there is no delay attributable to contractor in achievement of M2 Milestone.		
4.6.5	Amount required to be withheld on account of slippage of identified intermediate milestone(s) shall be withheld out of respective milestone payment (corresponding RA Bill) and balance amount (if any) shall be withheld @10% of RA Bill amount from subsequent RA bills.		
4.6.6	Final deduction towards LD (if applicable), on account of delay attributable to contractor shall be based on final delay analysis on completion/ closure of contract. Withheld amount, if any due to slippage of identified intermediate milestone(s) shall be adjusted against LD or released as the case may be.		
4.6.7	In case of termination of contract due to any reason attributable to contractor before completion of work, the amount already withheld against slippage of intermediate milestones shall not be released and be converted into recovery.		
4.6.8	All milestones dates mentioned under Clause 4.4 has to be completed in parallel.		
	*Executable Contract Value – Value of work for which inputs / fronts were made available to contractor and were scheduled for execution till the date of achievement of that milestone as per approved L2.		
4.7	Inputs exchange between the BOP vendor and BHEL in line with the scope defined in the relevant annexures shall be progressive. <b>Detailed L-2 Schedule and L-3 Schedule, including inputs requirement dates from BHEL, shall be prepared and submitted by Vendor for approval of BHEL.</b>		

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - IV: Time Schedule

	To meet above schedule (Clause No.4.3) in general, and any other intermediate targets set, to meet Owner (MPPGCL)/project schedule requirements, vendor shall arrange & augment all necessary resources from time to time on the instructions of BHEL.
4.8	<p>The BOP EPC Bidder qualifying under Technical Criteria B3 and B4 of PQR shall, establish necessary arrangements/tie-ups with the respective partners responsible for execution of the following major BOP Packages:</p> <ul style="list-style-type: none"> <li>• Stacker Reclaimer</li> <li>• Coal Handling Plant</li> <li>• Ash Handling Plant</li> <li>• Cooling Tower- NDCT</li> <li>• Water Systems</li> </ul> <p>The Successful Bidder shall submit the following documents to BHEL within <b>30 days</b> of issuance of the LOI:</p> <ul style="list-style-type: none"> <li>• An unpriced copy of the PO/LOI issued to the respective BOP Partner</li> <li>• The detailed scope of work of the respective BOP Partner</li> </ul> <p>Failure to submit the above documents within the stipulated period shall entitle BHEL, at its sole discretion, to descope the concerned BOP Package from the Successful Bidder.</p>
4.9	<p><b>DELIVERY/ COMPLETION SCHEDULE (FOR SUPPLY Contract)</b></p> <p>Supply of plant/ equipment/ stores shall not be considered complete until they have been inspected and accepted at the place and destination specified for delivery by the time stipulated under the terms &amp; conditions of the Order/ Contract. Contractor shall not dispatch any material before issuance of MDCC by BHEL/OWNER. Mere payment by itself shall not constitute acceptance of the goods or materials in any manner, whatsoever.</p> <p>Terms of delivery shall be FOR dispatch station/ project site for contractor.</p>
4.10	<p><b>DEFECT LIABILITY PERIOD: -</b></p> <p>Defect Liability Period” means the period of validity of the warranties given by the Contractor commencing at Completion of the Facilities or a part thereof, during which the Contractor is responsible for defects with respect to the Facilities (or the relevant part thereof) as provided in GCC</p> <p>The Contractor warrants that the Facilities or any part thereof shall be free from defects in the design, engineering, materials and workmanship of the Plant and Equipment supplied and of the work executed.</p> <p>The Defect Liability Period shall be eighteen (18) months from the date of Completion of the Facilities (or any part thereof) or twelve (12) months from the date of Operational Acceptance of the Facilities (or any part thereof), whichever first occurs, unless specified otherwise.</p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - IV: Time Schedule

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If during the Defect Liability Period any defect should be found in the design, engineering, materials and workmanship of the Plant and Equipment supplied or of the work executed by the Contractor, the Contractor shall promptly, in consultation and agreement with the BHEL/Owner(MPPGCL) regarding appropriate remedying of the defects, and at its cost, repair, replace or otherwise make good (as the Contractor shall, at its discretion, determine) such defect as well as any damage to the Facilities caused by such defect. The Contractor shall not be responsible for the repair, replacement or making good of any defect or of any damage to the Facilities arising out of or resulting from any of the following causes:

- (a) improper operation or maintenance of the Facilities by the Employer
- (b) operation of the Facilities outside specifications provided in the Contract
- (c) normal wear and tear.

The Contractor's obligations under the above clause shall not apply to

- a) any materials that are supplied by the BHEL/Owner (MPPGCL) under (BHEL-Supplied Plant, Equipment and Materials), are normally consumed in operation, or have a normal life shorter than the Defect Liability Period stated herein
- b) any designs, specifications or other data designed, supplied or any work executed or material supplied or specified by or on behalf of the Owner or any matters for which the Contractor has disclaimed responsibility herein.

Owner/BHEL shall give the Contractor a notice stating the nature of any such defect together with all available evidence thereof, promptly following the discovery thereof.

The Contractor may, with the consent of the Owner/BHEL, remove from the Site any Plant and Equipment or any part of the Facilities that are defective if the nature of the defect, and/or any damage to the Facilities caused by the defect, is such that repairs cannot be expeditiously carried out at the Site.

If the repair, replacement or making good is of such a character that it may affect the efficiency of the Facilities or any part thereof, the Owner/BHEL may give to the Contractor a notice requiring that tests of the defective part of the Facilities shall be made by the Contractor immediately upon completion of such remedial work, whereupon the Contractor shall carry out such tests.

If such part fails the tests, the Contractor shall carry out further repair, replacement or making good (as the case may be) until that part of the Facilities passes such tests. The tests in character shall in any case be not less than what has already been agreed by the Owner (MPPGCL)/ Owner (MPPGCL)'s consultant and the Contractor for the original equipment/part of the Facilities.

If the Contractor fails to commence the work necessary to remedy such defect or any damage to the Facilities caused by such defect within a reasonable time (which shall in no event be considered to be less than fifteen (15) days), BHEL may, following notice to the Contractor, proceed to do such work, and the reasonable costs incurred

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - IV: Time Schedule

	<p>by the BHEL in connection therewith shall be deducted by the BHEL from any payment due to the Contractor or claimed under the Performance Security.</p> <p>If the Facilities or any part thereof cannot be used by reason of such defect and/or making good of such defect, the Defect Liability Period of the Facilities or such part, as the case may be, shall be extended by a period equal to the period during which the Facilities or such part cannot be used by the Owner because of any of the aforesaid reasons. Upon correction of the defects in the Facilities or any part thereof by repair/replacement, such repair/replacement shall have the Defect Liability Period extended by a period of twelve (12) month from the time such replacement/repair of the Facilities or any part thereof.</p> <p>However, Defect Liability Period for such repaired /replaced Facilities or any part thereof shall not be extended by more than a period of 36 months from Completion of Facilities and 30 months from Operational acceptance whichever is earlier excluding the period during which such facility could not be used due to the aforesaid defect.</p> <p>Further, in case of repeated defects (three or more times) observed for such repaired / replaced facility during the defect liability period including extended period, the Employer has right to recover the reasonable costs incurred by the Employer to make good of the said facility.</p> <p>All guarantee/ warranty/ Defects Liability and Latent Defects Liability are the responsibility of the Bidder.</p> <p><b>“Facilities”</b> means the Plant and Equipment to be supplied and installed, as well as all the Installation Services and Civil Works to be carried out by the Contractor under the Contract.</p> <p>Upon <b>Completion of Facilities</b>, the Owner (MPPGCL) shall be responsible for the care and custody of the Facilities or the relevant part thereof, together with the risk of loss or damage thereto, and shall thereafter take over the Facilities or the relevant part thereof.</p>
4.11	<p><b>LATENT DEFECT LIABILITY:</b></p> <p>i) At the end of the Defect Liability Period, the contractor liability ceases except for latent defects. The contractor's liability for latent defects warranty shall be limited to a period of five (5) years from the end of Defect Liability Period. For the purpose of this clause, the latent defects shall be the defects inherently lying within the material or arising out of design deficiency which do not manifest themselves during the Defect Liability Period, but later.</p> <p>ii) In case, there is any dispute between regarding latent defects, a third party as mutually agreed upon by the Owner, BHEL and the Contractor shall be engaged by the Owner (MPPGCL)/Owner (MPPGCL)'s consultant for settling the dispute.</p> <p>iii) The third party, so engaged by the Owner (MPPGCL)/Owner (MPPGCL)'s consultant, shall be paid fee plus reasonable expenditures incurred in the execution of its duties as mentioned above by Owner (MPPGCL). In case of latent defect being</p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - IV: Time Schedule

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	proved, such costs shall be recoverable from the Contractor and the Contractor shall bear and reimburse such costs to the BHEL/Owner (MPPGCL)/Owner (MPPGCL)'s consultant. If the dispute regarding latent defects cannot be settled as above, then the dispute shall be settled as per provision of contract.
4.12	In addition, the Contractor shall also provide an extended warranty for any such component of the Facilities and during the period of time as may be specified in (MPPGCL)/Owner (MPPGCL)'s Technical Specification Amendment & Clarification. Such obligation shall be in addition to the defect liability specified as specified above.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - V: Limiting Guarantee Parameters

<b>5.0</b>	<b>FUNCTIONAL GUARANTEES</b>	
<b>5.1</b>	For Functional Guarantees, Liquidated damages, trial operation bidder to refer <b>FUNCTIONAL GUARANTEES</b> covered in SECTION-IV (GCC) , Sub-Section IV, Section-VI, Part-A, Technical Specification, of tender document attached in ANNEXURE-1 along with amendments, clarifications and relevant Annexures etc.	
<b>5.1.1</b>	For subject tender, Auxiliary power consumption in kW for unit auxiliaries under BOP Vendor scope shall not be more than <b>14600 KW</b> . For the list of auxiliaries in BOP area, considered for guaranteeing the auxiliary power consumption, bidder may refer Owner (MPPGCL) bid document (Section VI, Part-A, Subsection-VI, Functional Guarantees)	
<b>5.1.2</b>	All Guaranteed / Limiting Auxiliary Power shall be measured at switchgear terminal. Necessary equipment for measuring the same to be deployed by bidder as per the requirement.	
<b>5.1.3</b>	<b><u>1X660MW SATPURA BOP PACKAGE (LIST OF AUXILIARIES to be considered for calculation of Auxiliary Power Consumption)</u></b>	
	1	CW Pumps Refer note-2
	2	Ammonia dosing pumps (if required)
	3	TG - DM Cooling (All working pumps) Water pumps to supply cooling water on the primary (DM) side of the plate type heat exchangers in the closed loop Equipment cooling (Unit auxiliaries) water system.
	4	SG - DM Cooling (All working pumps) Water pumps to supply cooling water on the primary (DM) side of the plate type heat exchangers in the closed loop equipment cooling (Unit auxiliaries) water system.
	5	Auxiliary Cooling (All working pumps) water pumps to supply cooling water on the secondary side of the plate type heat exchangers in the closed loop Equipment cooling (unit auxiliary) water system.
	6	Power consumption of fans of Air washer units for TG building and fans of air filtration units for ESP and FGD buildings at its rated duty point to be arrived based on shop test.
	7	Plant & Instrument Air Compressors & Air Drying Plant
	8	Air conditioning System & Ventilation System
	9	Auxiliary Water System Pumps (Working Pumps)
	9.1	Makeup (Clarified water) water pump (if applicable)
	9.2	AC & Ventilation make-up pumps
	9.3	DM water make up pumps



# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - V: Limiting Guarantee Parameters

	9.4	Potable water pumps	
	9.5	Filtered water feed pumps for DM plant	
	9.6	Degassed water pump (if applicable)	
	9.7	High pressure pumps for RO based DM plant (if applicable)	
	9.8	UF feed pumps for RO based DM plant (if applicable)	
	9.9	Service water pumps	
	10	Ash Handling Plant	
	11	Mill reject System	
	12	Coal Handling plant, Biomass Handling plant	
	13	Power consumption of any other continuously operating auxiliary for plant operation at 100% designed load.	
	14	Transformer Losses: as per cl.1.01.07.02, SECTION VI, PART A, SUB-SECTION-IV]	
	<p>NOTE:</p> <p>1) Duty factors as per specification are applicable. Any other continuous running auxiliary in Vendor scope Shall be considered by vendor.</p> <p>2) CW Pump &amp; motor shall be supplied by BHEL as free issue to the bidder. Aux. power shall be computed as per below and to be submitted by bidder.</p> <p>- CW Pumps aux. power in KW for design CW flow and head (Power consumption shall be computed based on overall efficiency of 86% of CW pump and drive set)</p>		
5.2	Bidder to comply the Capabilities & Guarantee Declaration Appendix-8 (TCC Clause No. 3.24 Sl No. 33 & 34) attached in <b>Annexure-1</b> .		
5.3	Bidder shall furnish the complete Drive List in line with enclosed <b>ANNEXURE-6</b> .		

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - VI: Sub-Qualification Requirements

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6.0	SUB- QUALIFICATION REQUIREMENT
6.1	<p>Bidder to note that above sub-Qualification requirements to be met and further clearance to be taken from BHEL/MPPGCL for vendor approval as per procedure laid down for vendor approval from MPPGCL. Only BHEL &amp; MPPGCL approved vendor shall be considered before placement of order on sub-vendors and same has to be ensured by the bidder.</p> <p>For Sub-QR, refer tender document attached in ANNEXURE-1 along with amendments, clarifications and relevant Annexures etc.</p>
6.2	<p><b>Engineering/Design agency</b></p> <p>Bidder/Bidder's Sub-vendor should have done Engineering/'should have been Engineering Consultant' for complete BOP package for One (1) Coal/Lignite based power plant of at least 250 MW unit capacity. BOP shall necessarily comprise of</p> <ol style="list-style-type: none"> <li>1. Coal/Lignite handling plant.</li> <li>2. Ash handling plant.</li> <li>3. IDCT/NDCT.</li> <li>4. DM plant/ Pre-treatment plant/ Effluent treatment plant</li> </ol>
6.3	<p>Provenness/Sub-QR criteria of all the other Items/Equipment/ Sub systems (s)/System which shall be part of the package and required for the completion of the package shall have to be met by the Bidder / Consortium partner /Bidder's Sub-vendor in line with the Provenness covered in Sub-Section I-A, Section-VI, Part-A&amp; B or elsewhere of Technical Specification, of tender document attached in ANNEXURE-1 along with amendments, clarifications, MOMs and relevant Annexures etc.</p>

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<b>7.0</b>	<b>PAYMENT TERMS</b>
<b>7.1</b>	<b>Supply for Plant and Equipments (excluding Mandatory Spares and Type Tests) quoted on Ex-works (India) basis</b>
<b>7.1.1</b>	<p><b>Seventy (70%) of Total Ex-Works Supply Price Component of the Contract Price</b> for each identified equipment upon dispatch of equipment from manufacturer's works on pro-rata basis on production of invoices and satisfactory evidence of shipment (which shall be original Goods Receipt or receipted GR/Rail receipt) including Material Dispatch Clearance Certificate (MDCC)</p> <p>Following documents to be submitted by vendor:</p> <p><b>FOR DISPATCH INTIMATION / RECOGNITION OF DISPATCH</b></p> <ol style="list-style-type: none"> <li>Legible scanned copy of the following documents by e-mail immediately on dispatch for dispatch intimation and intimation to insurance company.:</li> <li>GST compliant invoice</li> <li>LR / Courier receipt / RR (indicating Invoice No., no. of boxes, PTL (if applicable) etc.) and Bill of Lading or AWB for imported items</li> <li>Packing List: Must indicate No. of boxes/bundles/packages, Packing size, Gross weight and net weight of each package, Contents of the package with cross reference to BBU item no. or item serial no. and Quantity of each item separately</li> <li>Insurance Intimation to underwriter through email.</li> <li>Dispatch Clearance.</li> <li>E-way bill, as may be applicable</li> <li>COO - Certificate of Origin (For imported items)</li> <li>Packing List: Must be indicating No. of boxes, Packing size, Gross weight and net weight of each package, Contents of the package with cross reference to BoM item code no. or item serial no. and Quantity of each item separately</li> <li>Duty drawback (if applicable) documents: As per applicable law</li> </ol> <p><i>Above list is tentative in nature and will be finalised at the time of PO.</i></p> <p><b>Note:</b></p> <ol style="list-style-type: none"> <li>BHEL may require certain original (physical) dispatch documents for billing to BHEL's customer. Such original documents, as insisted by BHEL, shall be submitted to BHEL in original within 7 days from the date of removal of goods/ generation of the document, whichever is earlier.</li> <li>BHEL may insist on using online dispatch intimation/ document submission/ data entry system during execution of the order/ contract. BHEL may also insist on preparation of certain documents/ details in specific formats. The seller/ contractor shall comply with the same.</li> </ol>
<b>7.1.2</b>	<b>Twenty (20%) of Total Ex-Works Supply Price Component</b> of the Contract Price for each identified equipment will be released on pro-rata basis against Material Receipt Certificate (MRC) / Store Receipt Voucher (SRV) issued by owner/customer/ BHEL upon physical

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	<p>verification and on submission of complete set of valid documents, Invoice</p> <p>Documents to be submitted by vendor:</p> <ol style="list-style-type: none"> <li>LR / Courier receipt / RR (indicating Invoice No., no. of boxes, PTL (if applicable) etc.) (For indigenous supplies)</li> <li>Bill of Lading or Air Way Bill (For imported items)</li> <li>COO - Certificate of Origin (For imported items)</li> <li>Packing List: Must be indicating No. of boxes, Packing size, Gross weight and net weight of each package, Contents of the package with cross reference to BoM item code no. or item serial no. and Quantity of each item separately</li> <li>Duty drawback (if applicable) documents: As per applicable law</li> <li>E-way bill as may be applicable.</li> <li>On furnishing the confirmation from the contractor that all the payments due w.r.t. the Bought-out Items are paid to their Sub-vendor(s) as per the agreed payment terms between Contractor and their sub-vendor.</li> </ol> <p>Collection of Material Receipt Certificate from Site/ Owner and its submission for claiming the payment shall be the responsibility of the Seller/ Contractor.</p>
7.1.3	<p><b>Four Percent (4%) of Ex-Works Supply Price Component</b> of the contract price on Successful Completion of Trial/Initial Operation including all associated auxiliaries and ancillary works and certification by the owner/customer/ BHEL.</p>
7.1.4	<p><b>Four Percent (4%) of Ex-Works Supply Price Component</b> of the contract price on Successful Completion of applicable Performance Guarantee Tests, to be conducted along with Trial/Initial operation as specified in Technical Specifications and issuance of Completion Certificate and certification by owner/customer/ BHEL.</p> <p>However, if for reasons not attributable to contractor performance Guarantee (PG) Test of the Facilities or the relevant part thereof cannot be successfully completed within the period of 01 (one) month from the date of Completion of Trial Operation, then 50% of the amount due on "Completion of Trial / Initial Operation along with PG Test" shall be released to the contractor without submission of any BG.</p> <p>Further, if for reasons not attributable to contractor, in case the performance Guarantee (PG) Test of the Facilities or the relevant part thereof cannot be successfully completed within the period of one year from the date of Completion of Trial Operation, then pending 50% amount shall be released upon submission of Bank Guarantee of equivalent value. Such BG shall be released after successful conductance of PG test.</p>
7.1.5	<p><b>Two Percent (2%) of Ex-Works Supply Price Component</b> of the contract price on successful completion of applicable Performance Guarantee Tests to be conducted after Trial/Initial operations as specified in Technical Specifications and issue of Operational Acceptance Certificate.</p>

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	However, if for reasons not attributable to contractor, in case the performance Guarantee (PG) Test of the Facilities or the relevant part thereof to be conducted after Trial/Initial operations cannot be successfully completed within the period of one year from the due date of completion of such PG test(s), then aforesaid 2% amount shall be released upon submission of Bank Guarantee of equivalent value. Such BG shall be released after successful conductance of PG test.
7.1.6	<p>Notes:</p> <ol style="list-style-type: none"> <li>1. Full Load is achieving full rated load generation on designated fuel as per the definition of Commissioning, for the purpose of capacity addition.</li> <li>2. The Initial Operation of the complete Facilities as an integral unit shall be conducted as per clause end user's i.e. End-User's tender document ref: clause 26.02.00 of Part-C (GTR), Section-VI (Technical Specifications).</li> <li>3. The basis for the pro-rata payments at S. No. 7.1.1 &amp; 7.1.2 above shall be the Billing Break-up (BBU) to be finalized subsequently after award of Contract. The Billing Break Up shall be generally on item rate basis. However, for the items which are generally supplied and billed on weight (tonnage) basis, the Billing Break-Up may be considered on weight (tonnage) basis.</li> </ol>
7.1.7	<b>Release of Supply Payment:</b> Payment will be released within 45 days (MSE vendors) and 60 days (Non-MSE vendors) after submission of complete set of valid documents, as specified under respective payment terms
7.2	<b>For Mandatory Spares Payment (as applicable)</b>
7.2.1	<p><b>Seventy five percent (75%) of Ex-works price component</b> of the spares to be paid on pro-rata basis: upon despatch to site and against invoices and shipping documents along with Material Despatch Clearance Certificate (MDCC) issued by of owner/customer/ BHEL.</p> <p>Documents to be submitted by vendor:</p> <p><b>FOR DISPATCH INTIMATION / RECOGNITION OF DISPATCH</b></p> <ol style="list-style-type: none"> <li>a) legible scanned copy of the following documents by e-mail immediately on dispatch for dispatch intimation and intimation to insurance company.:</li> <li>b) GST compliant invoice</li> <li>c) LR / Courier receipt / RR (indicating Invoice No., no. of boxes, PTL (if applicable) etc.) and Bill of Lading or AWB for imported items</li> <li>d) Packing List: Must indicate No. of boxes/bundles/packages, Packing size, Gross weight and net weight of each package, Contents of the package with cross reference to BBU item no. or item serial no. and Quantity of each item separately</li> <li>e) Insurance Intimation to underwriter through email.</li> <li>f) Dispatch Clearance.</li> <li>g) E-way bill, as may be applicable</li> <li>h) COO - Certificate of Origin (For imported items)</li> <li>i) Packing List: Must be indicating No. of boxes, Packing size, Gross weight and net weight of each package, Contents of the package with cross reference to BoM item code no. or item serial no. and Quantity of each item separately</li> </ol>

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	<p>j) Duty drawback (if applicable) documents: As per applicable law <i>Above list is tentative in nature and will be finalised at the time of PO.</i></p> <p><b>Note: -</b></p> <p>a) BHEL may require certain original (physical) dispatch documents for billing to BHEL's customer. Such original documents, as insisted by BHEL, shall be submitted to BHEL in original within 7 days from the date of removal of goods/ generation of the document, whichever is earlier.</p> <p>b) BHEL may insist on using online dispatch intimation/ document submission/ data entry system during execution of the order/ contract. BHEL may also insist on preparation of certain documents/ details in specific formats. The seller/ contractor shall comply with the same.</p>
7.2.2	<p><b>Twenty five percent (25%) of Ex-works price component</b> of the spares to be paid on pro-rata basis: on receipt and storage at site on certification by the project manager of owner/customer/ BHEL upon physical verification for the spares received and stored at site.</p> <p>Documents to be submitted by vendor:</p> <p>a) Invoice</p> <p>b) LR / Courier receipt / RR (indicating Invoice No., no. of boxes, PTL (if applicable) etc.) (For indigenous supplies)</p> <p>c) Bill of Lading or Air Way Bill (For imported items)</p> <p>d) COO - Certificate of Origin (For imported items)</p> <p>e) Packing List: Must be indicating No. of boxes, Packing size, Gross weight and net weight of each package, Contents of the package with cross reference to BoM item code no. or item serial no. and Quantity of each item separately</p> <p>f) Duty drawback (if applicable) documents: As per applicable law</p> <p>g) E-way bill as may be applicable.</p> <p>h) On furnishing the confirmation from the contractor that all the payments due w.r.t. the Bought-out Items are paid to their Sub-vendor(s) as per the agreed payment terms between Contractor and their sub-vendor.</p>
7.2.3	<p><b>Release of Mandatory Spares Payment:</b> Payment will be released within 45 days (MSE vendors) and 60 days (Non-MSE vendors) after submission of complete set of valid documents, as specified under respective payment terms</p>
7.3	<p><b>For Local Transportation</b></p> <p>All Plant and Equipment including mandatory spares and recommended spares (if ordered) <b>Hundred Percent (100%)</b> of Local Transportation charges (including port clearance, port handling and port charges etc., if applicable, and inland transit insurance charges) for the plant and equipment including mandatory spares and also recommended spares (if ordered) shall be paid to the Contractor pro-rata to the value of the equipment/spares received at site and on production of invoices by the Contractor. The aggregate of all such pro-rata payments shall, however, not exceed the total amount identified in the Contract for Local Transportation. However, where item wise local</p>

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	transportation charges (including port clearance, port handling and port charges etc., if applicable) have been identified in the Contract, the payment for the same shall be made after receipt of the equipment/spares at site, based on the charges so identified in the Contract.
7.4	<b>CIVIL WORKS PAYMENT</b>
7.4.1	<p><b>90 % (Ninety percent) of the total Civil Works Price Component</b> of Contract Price shall be paid progressively on certification by the BHEL engineer for the quantum of work completed and by BHEL Field quality surveillance representative for the successful completion of quality check points involved in the quantum of work billed.</p> <p>Further, break up (if any) for activities involved in completion of work shall be mutually agreed during execution of contract.</p>
7.4.2	<p><b>Four Percent (4%) of total Civil Works Price Component</b> of Contract Price on Successful Completion of Trial/Initial Operation including all associated auxiliaries and ancillary works and certification by the project manager of owner/customer/ BHEL.</p>
7.4.3	<p><b>Four Percent (4%) of total Civil Works Price Component of Contract Price</b> on Successful Completion of applicable Performance Guarantee Tests for Unit- I, to be conducted along with Trial/Initial operation as specified in Technical Specifications and issuance of Completion Certificate by project manager of owner/customer/ BHEL.</p> <p>However, if for reasons not attributable to contractor performance Guarantee (PG) Test of the Facilities or the relevant part thereof cannot be successfully completed within the period of 01 (one) month from the date of Completion of Trial Operation, then 50% of the amount due on "Completion of Trial / Initial Operation along with PG Test" shall be released to the contractor without submission of any BG.</p> <p>Further, if for reasons not attributable to contractor, in case the performance Guarantee (PG) Test of the Facilities or the relevant part thereof cannot be successfully completed within the period of one year from the date of Completion of Trial Operation, then pending 50% amount shall be released upon submission of Bank Guarantee of equivalent value. Such BG shall be released after successful conductance of PG test.</p>
7.4.4	<p><b>Two Percent (2%) of total Civil Works Price Component of Contract Price</b> on Successful completion of applicable Performance Guarantee Tests to be conducted after Trial/Initial operations as specified in Technical Specifications and issue of Operational Acceptance Certificate.</p> <p>However, if for reasons not attributable to contractor, in case the performance Guarantee (PG) Test of the Facilities or the relevant part thereof to be conducted after Trial/Initial operations cannot be successfully completed within the period of one year from the due date of completion of such PG test(s), then aforesaid 2% amount shall be released upon submission of Bank Guarantee of equivalent value. Such BG shall be released after successful conductance of PG test.</p>

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7.4.5	<b>Release of Civil Works Payment:</b> Payment will be released within 45 days (MSE vendors) and 60 days (Non-MSE vendors) after submission of complete set of valid documents, as specified under respective payment terms
7.5	<b>For Site Fabricated Structural Works Price Component of the Contract Price shall be paid as under:</b> Site Fabricated Structural Works
7.5.1	<p><b>90 % (Ninety percent) of the total Structural Works Price Component</b> of Contract Price shall be paid progressively on certification by the BHEL Engineer for the quantum of work completed and by BHEL Field quality surveillance representative for the successful completion of quality check points involved in the quantum of work billed.</p> <p>Further, break up (if any) for activities involved in completion of work shall be mutually agreed during execution of contract in line with GCC.</p>
7.5.2	<b>Four Percent (4%) of total Structural Works Price Component</b> of Contract Price on Successful Completion of Trial/Initial Operation including all associated auxiliaries and ancillary works for Unit-I and certification by the project manager of owner/customer/ BHEL.
7.5.3	<p><b>Four Percent (4%) of total Structural Works Price Component of Contract Price</b> on Successful Completion of applicable Performance Guarantee Tests for Unit- I, to be conducted along with Trial/Initial operation as specified in Technical Specifications and issuance of Completion Certificate for Unit-I by project manager of owner/customer/ BHEL.</p> <p>However, if for reasons not attributable to contractor, the performance Guarantee (PG) Test of the Facilities or the relevant part thereof cannot be successfully completed within the period of 01 (one) month from the date of Completion of Trial Operation, then 50% of the amount due on "Completion of Trial / Initial Operation along with PG Test" shall be released to the contractor without submission of any BG.</p> <p>Further, if for reasons not attributable to contractor, in case the performance Guarantee (PG) Test of the Facilities or the relevant part thereof cannot be successfully completed within the period of one year from the date of Completion of Trial Operation, then pending 50% amount shall be released upon submission of Bank Guarantee of equivalent value. Such BG shall be released after successful conductance of PG test.</p>
7.5.4	<p><b>Two Percent (2%) of total Structural Works Price Component of Contract Price</b> on Successful completion of applicable Performance Guarantee Tests to be conducted after Trial/Initial operations as specified in Technical Specifications and issue of Operational Acceptance Certificate for Unit-I.</p> <p>However, if for reasons not attributable to contractor, in case the performance Guarantee (PG) Test of the Facilities or the relevant part thereof to be conducted after Trial/Initial operations cannot be successfully completed within the period of one year from the due</p>



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	date of completion of such PG test(s), then aforesaid 1% amount shall be released upon submission of Bank Guarantee of equivalent value. Such BG shall be released after successful conductance of PG test.
7.5.5	<b>Release of Structural Works Payment:</b> Payment will be released within 45 days (MSE vendors) and 60 days (Non-MSE vendors) after submission of complete set of valid documents, as specified under respective payment terms
7.6	<b>For Installation Services</b> - excluding Civil works and Site Fabricated Structural Works Portion:
7.6.1	<p><b>Ninety Percent (90%) of the Installation Services- component of Contract Price</b> (excluding Civil and Site Fabricated Structure works) shall be paid on pro-rata basis against progressive erection of the identified equipment on certification by the BHEL Engineer for the quantum of work completed and on certification by owner/customer/BHEL field quality assurance &amp; surveillance representative for the successful completion of quality check points involved in the quantum of work.</p> <p>Further, break up (if any) for activities involved in completion of erection work shall be mutually agreed during execution of contract.</p>
7.6.2	<b>Four Percent (4%) of total Installation Services - Component of Contract Price</b> (excluding Civil and Site Fabricated Structural Works) (excluding Civil & Site Fabricated Structural works, AMC/AMS & Training Charges) on Successful Completion of Trial/Initial Operation including all associated auxiliaries and ancillary works for Unit-I and certification by the owner/customer/BHEL.
7.6.3	<p><b>Four Percent (4%) of total Installation Services – Erection and Commissioning - Component of Contract Price</b> (excluding Civil and Site Fabricated Structural Works) on Successful Completion of applicable Performance Guarantee Tests for Unit-I, to be conducted along with Trial/Initial operation as specified in Technical Specifications and issuance of Completion Certificate for Unit-I by owner/customer/BHEL.</p> <p>However, if for reasons not attributable to contractor, the performance Guarantee (PG) Test of the Facilities or the relevant part thereof cannot be successfully completed within the period of 01 (one) month from the date of Completion of Trial Operation, then 50% of the amount due on "Completion of Trial / Initial Operation along with PG Test" shall be released to the contractor without submission of any BG.</p> <p>Further, if for reasons not attributable to contractor, in case the performance Guarantee (PG) Test of the Facilities or the relevant part thereof cannot be successfully completed within the period of one year from the date of Completion of Trial Operation, then pending 50% amount shall be released upon submission of Bank Guarantee of equivalent value. Such BG shall be released after successful conductance of PG test.</p>
7.6.4	<b>Two Percent (2%) of total Installation Services – Erection and Commissioning - Component of Contract Price</b> (excluding Civil and Site Fabricated Structural Works) on Successful completion of applicable Performance Guarantee Tests to be conducted after Trial/Initial

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	<p>operations as specified in Technical Specifications and issue of Operational Acceptance Certificate for Unit-I.</p> <p>However, if for reasons not attributable to contractor, in case the performance Guarantee (PG) Test of the Facilities or the relevant part thereof to be conducted after Trial/Initial operations cannot be successfully completed within the period of one year from the due date of completion of such PG test(s), then aforesaid 1% amount shall be released upon submission of Bank Guarantee of equivalent value. Such BG shall be released after successful conductance of PG test.</p>
7.6.5	If PG test is not applicable for the tendered package, payment against successful completion of PG test shall be payable against successful completion of Trial operation.
7.6.6	<b>Release of Installation Services Payment:</b> Payment will be released within 45 days (MSE vendors) and 60 days (Non-MSE vendors) after submission of complete set of valid documents, as specified under respective payment terms
7.7	<b>For Payment against Training</b>  100% of amount for each training module shall be paid upon completion of the corresponding module on certification by the Owner/Customer/BHEL.  The basis for the pro-rata payments for this shall be the Billing Break-up (BBU) to be finalised subsequently after award of Contract.
7.8	<b>For Payment against Type Test</b>  100% of each Type Test Charges shall be paid to the Contractor upon conductance of the corresponding Type Test and Certification by the Engineer thereon Owner/Customer/BHEL.
7.9	<b>PAYMENT OF SERVICE(S) CHARGES: O&amp;M CHARGES (IF APPLICABLE, AS SEPARATE LINE ITEM OF PRICE FORMAT)</b>
7.9.1	<p>100% of basic price, along with applicable GST, on successful completion of the activity will be released on pro-rata basis.</p> <p>However, Payment of O&amp;M, if applicable will be released on quarterly basis or as specified in NIT, on Site certification/ certification by engineer.</p>
7.9.2	<b>Notes:</b> <ul style="list-style-type: none"><li>i. Any addition due to adjustment to the Contract Price shall be payable in the similar manner as provided in the clauses above. Reduction to the Contract Price, if any, due to price adjustment provisions, shall be effected by recovering 100% of the reduction amount (including advance) from any of the Contractor's bills falling immediately due for payment.</li><li>ii. If the documents are routed through Bank, then all bank charges will be to vendor's account.</li></ul>

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	<p>iii. In general, seller/contractors are required to issue Tax Invoice inclusive of PVC value (if applicable) wherever indices are available. In case PVC indices not available, vendors to submit PVC invoices on availability of applicable indices. However, Seller/contractor shall ensure to submit PVC calculations on quarterly for the shipments made during the previous quarter for buyer's clearance and acceptance before making PVC claim.</p> <p>iv. Any negative PVC, if not adjusted in earlier payments, will be adjusted. from the bills available with BHEL or future bills.</p>
<b>7.10</b>	<b>DOCUMENTS TO BE SUBMITTED BY VENDOR</b>
<b>7.10.1</b>	<p><b>Payment Under main supply and mandatory spares, against dispatch of materials:</b></p> <ul style="list-style-type: none"> <li>i) Invoice</li> <li>ii) LR / Courier receipt / RR (indicating Invoice No., no. of boxes, PTL (if applicable) etc.) (For indigenous supplies)</li> <li>iii) Bill of Lading or Air Way Bill (For imported items)</li> <li>iv) COO - Certificate of Origin (For imported items)</li> <li>v) Packing List: Must be indicating No. of boxes, Packing size, Gross weight and net weight of each package, Contents of the package with cross reference to BoM item code no. or item serial no. and Quantity of each item separately</li> <li>vi) Insurance Intimation to underwriter through email.</li> <li>vii) Material Dispatch Clearance Certificate from Owner / BHEL</li> <li>viii) Duty drawback (if applicable) documents: As per applicable law</li> <li>ix) E-way bill as may be applicable.</li> </ul>
<b>7.10.2</b>	<p><b>Payment Under main supply and mandatory spares, against receipt of materials at site for claiming MRC Payment:</b></p> <ul style="list-style-type: none"> <li>i) Commercial Invoice</li> <li>ii) Material Receipt Certificate-MRC (copy), duly signed by BHEL / Customer</li> </ul>
<b>7.10.3</b>	<p><b><u>FOR CLAIMING ERECTION &amp; COMMISSIONING, CIVIL &amp; STRUCTURAL PAYMENT:</u></b></p> <p>Along with GST invoice, Running Account Bill (RAB) &amp; Measurement Book (MB), in BHEL format, following additional documents need to be submitted:</p> <ul style="list-style-type: none"> <li>i. Proof of wages paid (up to previous RAB / Invoice).</li> <li>ii. Monthly EPF remittance challan (if applicable). Up to previous RAB / Invoice)</li> <li>iii. Monthly ESI remittance challan Up to previous month)/ W.C. Insurance Policy, Valid Labor License (if applicable).</li> <li>iv. Any other document as informed by BHEL.</li> <li>v. Quality documents as per FQP.</li> <li>vi. Bank Guarantee, if applicable as per Notes of payment terms.</li> </ul> <p><b>FOR CLAIMING PAYMENT AGAINST COMMISSIONING (NO LOAD), TRIAL OPERATION, PG/ DEMONSTRATION TEST(S) AT SITE, HANDING OVER:</b></p> <ul style="list-style-type: none"> <li>i. GST invoice</li> </ul>

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	<ul style="list-style-type: none"> <li>ii. Certification for completion of activity as per payment terms from BHEL/Customer.</li> <li>iii. HR compliances, store NOC and any other documents, as per checklist, if any issued by REGION/ISG during detailed PO/WO or execution of the contract, Compliance of these is required before 1st retention payment release.</li> </ul>
7.10.4	<p><b>For claiming payment for services (demonstration charges, Supervision of erection / commissioning charges, O&amp;M charges (if applicable, As separate line item of price format):</b></p> <ul style="list-style-type: none"> <li>i) GST compliant Invoice</li> <li>ii) Certification for completion of activity as per payment terms from BHEL/Customer.</li> </ul>
7.10.5	<p><b>FOR CLAIMING PVC AMOUNT:</b></p> <ul style="list-style-type: none"> <li>(i) GST compliant invoice</li> <li>(ii) PVC calculation duly approved by BHEL</li> <li>(iii) All documents in support of PVC calculation</li> </ul>
7.11	<p><b>PRICE VARIATION CLAUSE: -</b></p> <p>Any addition due to adjustment to the Contract Price shall be payable in the similar manner as provided in the clauses 7.1, 7.2, 7.4, 7.5 and 7.6 above. PVC shall be applicable as per Appendix-2 (PVC) of <b>Annexure-4</b> and in line with the NIT, amendment's clarifications there off, if there is delay beyond original overall completion schedule not attributable to vendor.</p> <p>Any and all the other commercial terms and conditions shall be in line with the GCC Commercial Terms and Conditions attached along with this document.</p>
7.12	<p><b>NON-PAYMENT OF INTEREST</b></p> <p>Notwithstanding anything to the contrary contained in any other document comprising the contract, no interest shall be payable to the Seller/Contractor on any money or balances including but not limited to the security amount, bank guarantee amount, EMD, retention money, any bills or any amount withheld which may become due owing to difference or misunderstanding or any dispute between the BHEL and the Contractor, or any delay on the part of BHEL in making periodical or final payment or any other aspects incidental thereto.</p>
7.13	<b>Void</b>
7.14	<p><b><u>Amount linked to Safety Aspects/ compliance to Safety Rules:</u></b></p> <p>Amount linked to Safety Aspects/ compliance to Safety Rules' should be equal to 1 % of the cumulative total of Service Portion of the Contract, i.e. Civil + Installation/ Erection + Structural Works.</p>

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	<p>The amounts linked to Safety Aspects / Compliance to Safety Rules including aforesaid retained amount shall be payable in part or full based on safety compliance duly certified by Project Manager and Safety-in-charge on quarterly basis.</p> <p>A. 10% amount (calculated as 0.1 Y of the service portion amount of RA bill) shall be linked to Fatal/Major Accidents, and</p> <p>B. 90% amount (calculated as 0.9 Y of the service portion amount of RA bill) shall be linked to various Safety Aspects specified in HSE Plan for Site operation by Contractor.</p> <p>While raising each RA Bill, Contractor shall claim Amount linked to Safety Aspects/ Compliance to Safety in such a manner that amount claimed is equal to Y% of the service portion (i.e. Civil/ Installation/ Erection/Structural Works etc.) of RA Bill.</p> <p>Where</p> <p>Y= 1% of Total Amount for Construction/service portion of the contract i.e. Civil Installation/Erection, Structural Works etc.)</p>
7.14.1	<p>The amount as elaborated at para-A shall be withheld from first and second monthly RA bill of the respective quarter/three-month period and shall be released in part or full based on safety compliance duly certified by Project Manager and Safety-in-charge on quarterly basis. The amount for the entire quarter (i.e. RA bills raised during a 3-month period) shall be paid to the Contractors at the end of that three months' period along with 3rd/last RA Bill for the quarter/three months' period upon complying the following conditions:</p>
7.14.2	<p>Amount of RA bill linked to FATAL/ Major Accidents (0.1 Y of the service portion amount of RA bill as mentioned above)</p> <p>a) <b>No fatal injury</b> or accident-causing death in that three months' period.</p> <p style="text-align: center;"><b>And</b></p> <p>ii) <b>No Major injury</b> or accident causing 25% or more permanent disablement to workmen or employees in that three-month period.</p> <p>Permanent disablement shall have the same meaning as indicated in The Workmen's Compensation Act' 1923 or IS 3786.</p> <p>In case of any fatal injury or accident as elaborated above occurs during that three-month period, the stipulated amount (0.1Y) subject to minimum of <b>Rs 10 Lakh per fatality</b> shall be forfeited and shall not be payable to the contractor under the contract. In case, the amount to be deducted/forfeited exceeds the amount linked to Fatal/ Major Accidents,</p>

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	<p>the same shall be recovered from remaining Amount (0.9Y) linked to Compliance of Safety Rules and/or any other payments immediately due to the contractor under the Contract.</p> <p>In case of any Major injury or accident causing <b>25%</b> or more permanent disablement to workmen/worker or employees occurs during that three-month period, <b>Rs 4 lakh per Major injury</b> shall be deducted from the amount (0.1Y) linked to Fatal/ Major Accidents and shall not be payable to the Contractor under the contract. In case, the amount to be deducted/forfeited exceeds the amount linked to Fatal/ Major Accidents, the same shall be recovered from remaining Amount (0.9Y) linked to Compliance of Safety Rules and/or any other payments immediately due to the Contractor under the Contract.</p> <p>Further, in case, Contractor doesn't raise RA Bills in any three-month period/quarter and if any fatal injury and/or major accident takes place in that period, Construction Manager shall deduct the amount [<b>Rs 10 Lakh per fatality and Rs 4 lakh per Major injury</b>] pertaining to this particular quarter from his next RA bill/due payment. In case, the amount to be deducted/forfeited exceeds the amount linked to Safety, the same shall be recovered from any other payments immediately due to the contractor under the Contract.</p> <p>The amount deducted/forfeited as mentioned above shall be in addition to the compensation payable to the workmen / employees under the relevant provisions of the Workmen's Compensation Act' 1923 and rules framed there under or any other applicable laws as applicable from time to time.</p>
7.14.3	<p><b>Amount of RA Bill linked to Compliance of Safety Rules (0.9Y i.e. 90% of amount as elaborated as mention at clause).</b></p> <p>Aforesaid amount (on quarterly basis) shall be payable to Contractor in five equal parts under five heads as under:</p> <p><b>(i) Amount payable on deployment of required Safety Personnel</b></p> <p>One fifth of the amount specified at clause 7.14.B (calculated as 0.18Y of Service portion amount of RA Bill), on quarterly basis, shall be paid upon certification by Construction Manager in consultation with Safety dept. that required number of Safety personnel as per HSE ORGANIZATION (Annexure-9) have been deployed. The aforesaid amount linked to deployment of requisite safety personnel shall be paid as under:</p> <p>a) 50% of the amount referred in 7.14.3(i), for deployment of Safety Supervisors shall be paid on pro-rata basis depending upon the actual no. of Safety Supervisors deployed vis-à-vis actual requirement:</p>

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	<p>(Amount to be paid= 0.09Y x Service portion of RA bill amount x (a/b)</p> <p>Where 'a' is actual no. of Safety supervisors deployed.</p> <p>And</p> <p>'b' is required no. of Safety supervisors as per HSE Plan for site operation by contractor.</p> <p>In case, actual no. of Safety supervisors deployed is more than requisite number (i.e. a/b is more than 1), the amount to be paid shall be restricted to 0.09Y.</p> <p>b) 50% of the amount referred in clause 7.14.3(i), for deployment of Safety Officers shall be paid on pro-rata basis depending upon the actual no. of Safety Officers deployed vis-à-vis actual requirement:</p> <p>(Amount to be paid) = 0.09Y x Service portion of RA bill amount x (a/b)</p> <p>Where 'a' is actual no. of Safety Officers deployed</p> <p>And</p> <p>'b' is required no. of Safety Officers as per HSE plan for site operation by contractor. In case, actual no. of Safety Officers deployed is more than requisite number (i.e. a/b is more than 1), the amount to be paid shall be restricted to 0.09Y.</p> <p>a) In case aforesaid requisite no. of Safety personnel are not deployed by contractor, amount not to be paid as calculated above for that particular quarter/three-month period shall be forfeited and shall not be payable to the contractor under the contract.</p> <p><b>(ii) Amount payable on providing requisite Personal Protective Equipment &amp; Safety Equipment</b></p> <p>One fifth of the amount specified at Clause 7.14B (calculated as 0.18Y of Service portion amount of RA Bill), on quarterly basis, shall be paid upon certification by Construction Manager in consultation with Safety dept. that contractor has adhered to the requirements of Personal Protective Equipment.</p>
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In case of non-compliance by contractor, warning letter/Noncompliance shall be issued by Construction Manager /Safety Officer of BHEL. Further, if more than two such warning letters/Non-Compliance Memos are issued in a quarter/three monthly period, above mentioned amount for that particular quarter/three-month period shall be forfeited and shall not be payable to the contractor under the contract.'

**Note: - The agency should ensure sufficient inventory of personal protective equipment (PPEs) prior to initial mobilization. After identifying the need of the required PPEs for various activities performed at the site, an additional inventory of approx. 20% of required PPEs should be maintaining during the execution of the work. If sub agency fail to provide the PPEs to worker the same may be issued by BHEL and cost for the PPEs will be recovered from the contractor from regular RA Bill with 30 % overhead charges.**

### **(iii) Amount payable on providing requisite Safety Induction and Training**

One fifth of the amount specified at Clause 7.14B (calculated as 0.18Y of Service portion amount of RA Bill), on quarterly basis, shall be paid upon certification by Construction Manager in consultation with Safety dept. that contractor has adhered to the requirements of imparting Safety training as per Clause 9.0 (HSE Training & Awareness) to at least 90% of its employees/workmen (who have not been previously provided with requisite training) in a quarter/ three months' period. In case contractor fails in meeting the aforesaid requirement, above mentioned amount for that particular

quarter/three-month period shall be forfeited and shall not be payable to the contractor under the contract.

### **(iv) Amount payable on providing requisite Medical and First Aid Amenities**

One fifth of the amount specified at clause 7.14B (calculated as 0.18Y of Service portion amount of RA Bill), on quarterly basis, shall be paid upon certification by Construction Manager in consultation with Safety dept. that contractor has adhered to the requirements of Medical Facilities & First Aid Amenities. In case contractor fails to provide Medical Facilities and First aid amenities as per requirement even on one incidence in any quarter/three-month period, above mentioned amount for that particular quarter/three-month period shall be forfeited and shall not be payable to the contractor under the contract.

### **(v) Amount payable on compliance to Work Permit System**

One fifth of the amount specified at Clause 7.14B (calculated as 0.18Y of Service portion amount of RA Bill), on quarterly basis, shall be paid upon certification by Construction Manager in consultation with Safety dept. that contractor has adhered to the requirements of Work Permit System). In case of non-compliance by contractor, warning letters/Non-Compliance Memos shall be issued by Construction Manager/ Safety Officer



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	<p>of BHEL. In case of issuance of more than two such warning letters/Non-Compliance Memos in a quarter/three monthly period, above mentioned amount for that particular quarter/three-month period shall be forfeited and shall not be payable to the contractor under the contract.</p>
7.15	<p><b>Secured Recoverable Advances:</b> Interest Free Secured Mobilization Advance as per GCC. will be payable under exceptional circumstances on certification of BHEL Construction Manager at Site.</p> <p><b>5% of Interest Free Mobilization Advance shall be applicable on Total Contract Value (Supply + Civil Works + Site Fabricated Structures + Installation Works).</b></p> <ol style="list-style-type: none"> <li>For Establishment of Site Office and Posting of Site Manager and team consisting of Construction/Erection Engineers, Quality Engineer, Safety Engineer etc. as required in Site Office – 0.5%.</li> <li>For Start of Civil Works at Site including the Mobilization of the Required T &amp; P as required for execution of the Civil Works at site – 0.5 %</li> <li>For Start of Site Structural Fabrication Works including the Establishment of Site Facilities, Deployment of T &amp; Ps as required– 0.5 %.</li> <li>On Submission of copy of purchase order placed by Contractor and duly accepted by Sub-Contractor(s) for Stacker and Reclaimer -0.5 %</li> <li>On Submission of copy of purchase order placed by Contractor and duly accepted by Sub-Contractor(s) for CHP-1 %.</li> <li>On Submission of copy of purchase order placed by Contractor and duly accepted by Sub-Contractor(s) for AHP -1 %.</li> <li>On Submission of copy of purchase order placed by Contractor and duly accepted by Sub-Contractor(s) for NDCT-0.5 %.</li> <li>On Submission of copy of purchase order placed by Contractor and duly accepted by Sub-Contractor(s) for CPU and DM plant - 0.5 %.</li> </ol> <p>The Requirements of Facilities and T&amp;Ps for the start of works defined (b) and (c) shall be in line with the Project Requirement and as certified by the project manager of</p>

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	<p>BHEL.</p> <p>Note: -</p> <ol style="list-style-type: none"><li>1. BHEL Site-PD shall be the deciding authority for assessing the admissibility of advance payment to contractor.</li><li>2. In case contractor do not fulfil the agreed conditions of payment of earlier mobilization advance, BHEL Construction Manager will have the authority to not allow the subsequent mobilization advance to contractor.</li><li>3. <b>Release of Mobilisation advance:</b> Advance Payment shall be released within 45 days of receipt of a complete set of valid documents, in accordance with the provisions mentioned above.</li><li>4. GST against Advance on SUPPLY portion of BBU is not payable.</li></ol>
7.16	<p><b><u>Billing Break-up (BBU)</u></b></p> <p>The basis for the pro-rata payments above shall be the Billing Break-up (BBU) to be finalized subsequently after award of Contract.</p> <p>The Contractor shall prepare and submit to BHEL for approval with <b>Seven days</b>, a break-up of the Contract Price in the currencies of the Contract in line with Chapter-XIX.</p> <p>The aggregate sum of the Contractor's price break-up shall be equal to the Total Contract Price. The break-up thus submitted shall be approved by BHEL in line with the approval of billing break-up by Owner/Customer.</p> <p>The price break-up shall be interlinked with the agreed detailed PERT Network of the Contract, setting forth starting and completion dates for the various key phases of the Facilities and the submitted Break-up of the Contract Price for Main Equipment supplies shall contain the date of dispatch necessarily.</p> <p>Further, BHEL reserves the right to withhold any amount for the agreed scope of work, not completed/ partially completed/ pending punch points etc. Decision of the Purchaser in this regard shall be final and binding on the seller/ contractor.</p> <p>The Billing Break Up shall be generally on item rate basis. However, for the items which are generally supplied and billed on weight (tonnage) basis, the Billing Break-Up may be considered on weight (tonnage) basis.</p> <p>Any payment under the Contract, subsequent to Advance payment, shall be made only after the Contractor's price break-up is approved by the BHEL.</p> <p>Further, the BHEL reserves the right to withhold any amount for the agreed scope of work, not completed/ partially completed/ pending punch points etc. Decision of the BHEL, in this regard shall be final and binding on the seller/ contractor.</p>

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7.17	<p><b><u>Price Bid</u></b></p> <p>a) <b>Price Basis for supply (plant and equipment including spares): Ex-works Basis</b>, inclusive of type test, packing &amp; forwarding charges including sea-worthy packing (wherever applicable), all taxes &amp; duties, levies etc., except Goods &amp; Service Tax (GST).</p> <p>All import implications including but not limited to Basic Customs Duty, Education cess, antidumping duty, safeguard duty etc. applicable for imported items shall be included in the ex-works price of plant and equipment including spares.</p> <p>Ownership of the Plant and Equipment (including spare parts) to be supplied shall be transferred to the Purchaser when the Plant and Equipment (including spares) are loaded on to the mode of transport to be used to convey the Plant and Equipment (including spares) from the works to the site.</p> <p>Transportation of goods up to Destination shall be arranged by vendor on behalf of BHEL. Scope of Insurance shall be as specified in clause 3.16 of TCC</p> <p>b) <b>Price Basis for E&amp;C and other Services:</b> Basic price basis inclusive of all taxes &amp; duties, levies etc., except Goods &amp; Service Tax (GST).</p>
7.18	<p><b><u>Custom Clearance</u></b></p> <p>For all the supplies / services for the execution of the contract, rendered directly from outside India to the country of project site, the applicable taxes, duties Charges, Royalties, etc. in the country of origin shall be borne by seller / contractor and should be included in the basic price. Same shall not be payable extra by BHEL.</p> <p>For the imports, the quoted basic price includes seaworthy packing &amp; overseas forwarding charges, applicable basic custom duty, education cess, anti-dumping duty, safeguard duty, port clearance charges (at Indian Port of Import), and any other taxes &amp; duties. However, GST shall be payable extra as applicable.</p> <p>Custom clearance for all the items imported into the project shall be in bidder's scope. Also, all type of duties, levies, fees, charges (if any) imposed by relevant agencies for Custom / any other clearance shall be to bidder's account.</p> <p>Seller/ Contractor alone shall be responsible for any delay in getting import license or non-availability of the same or completion of other related formalities. Purchaser shall not be responsible for any financial liability, whatsoever, on this account.</p> <p>In case any such benefits are published by GOI during execution of the contract, the Buyer shall submit the required documents to the seller / contractor to avail such benefit, however the benefit so received is to be passed on to the Buyer by the Seller / contractor. Alternatively, such benefits will be recovered by Buyer from the seller / contractor's bill.</p>

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## Chapter - VIII: Liquidated Damages

<b>8.0</b>	<b>LIQUIDATED DAMAGES (LD)</b>
<b>8.1</b>	<p><b>LD for Delay Completion of Facilities:</b></p> <p>Timely dispatch/delivery and completion of other schedules as stipulated in Order/Contract shall be the essence of Order/Contract. If the Bidder fails to complete the dispatch/delivery and other schedules within the time period stipulated in Order/Contract, or within any extension of time granted by, it shall be lawful for purchaser (BHEL) to recover damages for breach of Order/Contract and hereunder.</p>
<b>8.1.1</b>	One half of one percent ( <b>0.5 %</b> ) of contract value (Excluding Mandatory Spares), for each week of delay in successful <b>Completion of Facilities of the Unit as per the scope of work</b> of the Contractor.
<b>8.1.2</b>	The total amount of Liquidated Damages for delay under the contracts will be subject to a maximum of <b>5 %</b> of the total contract price.
<b>8.1.3</b>	<p>Liquidated Damages for delay in supply of spares beyond the dates stipulated under the Contract shall be as follows:</p> <p>One half of one percent (1/2%) Ex-works price of the delayed Mandatory Spares, per week or part thereof of delay, subject to maximum of five percent (5%) of the total Ex-works price of all mandatory spares included in the Scope of Work of the Contractor under the Contract.</p>
<b>8.1.4</b>	<p><b>NOTE:</b></p> <p>NO LD SHALL BE WITHHELD, IF THERE IS DELAY IN SUPPLY ONLY, BUT THE ENTIRE SCOPE OF WORK IS COMPLETED ON TIME, INCLUDING TIME EXTENTIONS FOR WHICH DELAY IS NOT ATTRIBUTABLE TO BIDDER.</p>
<b>8.2</b>	<b>LIQUIDATED DAMAGES/PENALTIES FOR SHORTFALL IN GUARANTEED PERFORMANCE PARAMETERS:</b>
<b>8.2.1</b>	In case the results of the performance Guarantee tests as stipulated in the specifications show that the equipment have failed to meet the guaranteed performance requirements, the bidder shall carry out the modification, if necessary within 90 days of such tests. If the equipment fails to meet the guaranteed parameters at the end of above specified period of 90 days BHEL may at his discretion reject the equipment or accept after assessing the liquidated damages to be payable by the bidder.
<b>8.2.2</b>	Alternatively, in case the bidder does not fulfil the guaranteed parameters, BHEL may undertake to rectify the system/ equipment and expenditure incurred along with any other incidentals shall be recovered from the bidder. In case of un-remedied any excess consumption of Auxiliary Power consumptions and shortfall of other guarantee parameters for the ordered package as agreed by the bidder in the contract, the bidder shall be liable to pay BHEL by way of LD/Penalty for performance shortfall as stipulated in Owner (MPPGCL) FUNCTIONAL GUARANTEES covered in Sub-Section IV, Section-VI, Part-A, Technical Specification, of tender document attached in <b>ANNEXURE-1 along with amendments, clarifications and relevant Annexures etc.</b> , If any applicable for this contract.
<b>8.2.3</b>	Maximum LD on account of short fall of guaranteed performance parameters shall be in line with the Owner (MPPGCL) FUNCTIONAL GUARANTEES covered in Sub-Section IV, Section-VI, Part-A, Technical Specification, of tender document attached in <b>ANNEXURE-1 along with amendments, clarifications and relevant Annexures etc.</b> If any applicable for this contract.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - IX: Work Instructions for Storage & Handing Over of Spares

<b>9.0</b>	<b>WORK INSTRUCTIONS FOR STORAGE &amp; HANDING OVER OF MANDATORY SPARES</b>
<b>9.1</b>	<p><b>Mandatory Spare Parts</b></p> <p>The finalized list of mandatory spares as per Clause No. 3.9 for which separate LOA shall be placed within 24 months from the date of LOI.</p>
<b>9.2</b>	<p><b>Recommended Spares</b></p> <p>In addition to the mandatory spares, the Contractor shall also provide a list of recommended spares giving unit prices and total prices for 3 years of normal operation of the plant for spares of indigenous origin, and for 5 years of normal operation for spares of non-indigenous origin. This list shall take into consideration the mandatory spares specified elsewhere in the specification and should be a separate list.</p>
<b>9.3</b>	<p><b>Start-up Commissioning, Operation and Maintenance Spares</b></p> <p>Start-up and commissioning spares are those spares which may be required during the start-up and commissioning of the equipment/system. All spares used till the plant is handed over to the employer shall come under this category. The Contractor shall provide for an adequate stock of such start up and commissioning spares to be brought by him to the site for the plant erection and commissioning. They must be available at site before the equipment are energized. The unused spares, if any, should be removed from there only after the issue of Taking Over certificate. All start up spares which remain unused at the time shall remain the property of the Contractor.</p>
<b>9.4</b>	<p><b>Following work instructions for storage &amp; handing over of mandatory spares shall be complied and ensured by the bidder:</b></p> <ol style="list-style-type: none"> <li>1. Spares shall be sent in pre-decided lots in containers/secure boxes. This shall be applicable to both shop items as well as BOIs.</li> <li>2. All boxes/containers are to be distinctly marked in red color with boldly written "S" mark on each face of the containers</li> <li>3. Unless technically not feasible, BBU number should be put on the item(s) in a durable manner (punching/painting, etc.), so that items can be easily linked with approved BBU for ease of handing over to Owner (MPPGCL).</li> <li>4. Expiry date for short shelf life items (oils, chemicals, insulation material etc.) should be put on the item as well as on the packing box.</li> <li>5. Storage, safety of boxes/items and maintaining requisite inventory records will be the responsibility of bidder's representative at site.</li> <li>6. Bidders shall make periodic checks for safety of boxes/items, as the case may be.</li> <li>7. For handing over of mandatory spares, getting MRC from Owner (MPPGCL) and physical reconciliation with Owner (MPPGCL) shall be the joint responsibility of the bidder's site representative and BHEL's site representative.</li> <li>8. The minimum requirement for storage &amp; FQP is mentioned in of TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC NO.: CW-CM-11233-C-O-M-001. attached in <b>ANNEXURE-1</b> Standard Storage Instruction &amp; Field Quality Plan, same shall be followed by bidder.</li> </ol>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - IX: Work Instructions for Storage & Handing Over of Spares

9.5	<p><b>General</b></p> <ol style="list-style-type: none"><li>1. All spares supplied under this contract shall be strictly interchange-able with the parts for which they are intended to replace. The spares shall be treated and packed for long storage under the climatic conditions prevailing at the site, e.g. small items shall be packed in sealed transparent plastic bags with desiccators' packs as necessary.</li><li>2. Each spare part shall be clearly marked or labeled on the outside of the packing with the description. When more than one spare part is packed in a single case, a general description of the contents shall be shown on the outside and a detailed list enclosed. All cases, containers and other packages must be suitably marked and numbered for the purpose of identification.</li><li>3. All cases, containers or other package are liable to be opened for examination as may be considered necessary by the Engineer.</li><li>4. All mandatory and recommended spares shall be delivered to site at least two months before the scheduled date of the trial operation of the plant. However, they shall not be dispatched before the dispatch of the associated main equipment.</li><li>5. The Vendor will provide all the addresses and particulars of his sub suppliers while placing the order on vendors for items/components/equipment covered under the contract and will further ensure with his vendors that BHEL/ Owner (MPPGCL), if so desires, will have the right to place order for spares directly on them on mutually agreed terms based on offers of such vendors.</li><li>6. The bidder to provide datasheets/assembly drawings of the manufacturer/ any other relevant document showing Bill of Material(s), Make, Model Number, Part Number etc. through which the mandatory spares to be supplied can be uniquely identified.</li></ol>
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# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-X: DOCUMENTS / INFORMATION TO BE FURNISHED WITH TECHNICAL OFFER

10.0	DOCUMENTS / INFORMATION TO BE FURNISHED ALONGWITH TECHNICAL OFFER:
10.1	<p>Bidder shall submit the signed and stamped copy of all the pages which constitutes this technical enquiry specification signed by authorized signatory and clearly mentioning each clause.</p> <p>Bidder shall note that the bid is a “No Deviation Bid”.</p>
10.2	<p>Bidder to Comply Guaranteed / Limiting Auxiliary Power Consumption Refer Chapter-V.</p>
10.3	<p>Bidder to Comply the Guarantee Declaration as per enclosed Appendix-8 (TCC Clause No. 3.24 Sl No. 33 &amp; 34).</p>
10.4	<p>Bidder shall submit signed Annexure-10 (DECLARATION FOR PRICE OF MANDATORY SPARES)</p>
10.5	<p>Bidder shall submit signed Annexure-12 (DECLARATION OF AWARENESS OF SITE CONSTRAINTS AND SOURCING)</p>
10.6	<p>The EPC Bidder shall enter into a tie-up with a qualified Design Agency, who will be responsible for detailed engineering and obtaining approvals from the design centres of BHEL, the Owner (MPPGCL), and their Consultant, until completion of the Project.</p> <p>The Bidder shall submit, along with the tender, a joint undertaking with the Design Agency confirming that the Design Agency will be engaged for the entire scope of work upon award of the job by BHEL.</p>
10.7	<p>The BOP EPC Bidder qualifying under Technical Criteria B3 and B4 of PQR shall, establish necessary arrangements/tie-ups with the respective partners responsible for execution of the following major BOP Packages:</p> <ul style="list-style-type: none"> <li>• Stacker Reclaimer</li> <li>• Coal Handling Plant</li> <li>• Ash Handling Plant</li> <li>• Cooling Tower- NDCT</li> <li>• Water Systems</li> </ul> <p>The Successful Bidder shall submit the following documents to BHEL within <b>30 days</b> of issuance of the LOI:</p> <ul style="list-style-type: none"> <li>• An unpriced copy of the PO/LOI issued to the respective BOP Partner</li> <li>• The detailed scope of work of the respective BOP Partner</li> </ul> <p>Failure to submit the above documents within the stipulated period shall entitle BHEL, at its sole discretion, to descope the concerned BOP Package from the Successful Bidder.</p>

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## Chapter-XI: Material Handling, Transportation and Storage

<b>11.0</b>	<b>Material Handling</b>
<b>11.1</b>	<b>Packing</b>
<b>11.1.1</b>	Packing shall be in conformity with specifications and shall be such as to ensure prevention of damages, corrosion, deterioration, shortages, pilferage and loss in transit or storage.
<b>11.1.2</b>	In case of shipment by sea, the packing shall be sea-worthy and of international standards.
<b>11.1.3</b>	<p>Packing List shall be submitted as per standard format along with advance set of documents for claiming payment which must indicate:</p> <ul style="list-style-type: none"> <li>i. No. of boxes</li> <li>ii. Packing size.</li> <li>iii. Gross weight and net weight of each package.</li> <li>iv. Contents of the package with cross reference to BoM item code no. or item serial no.</li> <li>v. Quantity of each item separately.</li> </ul> <p>The Packing list must cover all the BoM items and supplier to give the following undertaking in the Packing List: The Packing List provided herewith is as per the BoM approved under PO No.-.....dated- .....</p>
<b>11.2</b>	<p><b>PACKING FOR SPARES</b></p> <p>Different types of spares i.e. start-up/ commissioning spares and initial spares (Mandatory spares and recommended O&amp;M spares) are to be packed separately. Mandatory and Recommended Spares shall not be packed with main equipment but shall be packed separately.</p> <p>Packing of Mandatory Spares/Recommended spares should have a Red color band all around the container / package and words MANDATORY / RECOMMENDED SPARES written in red color. Project, Package description, BHEL's LOA No. and date s also be clearly mentioned on the box. One copy of laminated packing slip shall be placed inside the container and one copy shall be pasted on the cover of the container.</p>
<b>11.3</b>	<b>COLOUR CODING OF TAGS/ MARKING/ STICKERS</b>
<b>11.3.1</b>	Aluminum stickers are required to be attached to large components but plastic sheet tags should be tied with small components, giving details like purchase order, description of the component, quantity etc.
<b>11.3.2</b>	<p>Tags should be of the color as mentioned below:</p> <p>Main equipment: Yellow or White tag</p> <p>Mandatory spares: Pink or Red tag</p> <p>Start-up/ Commissioning spares: Blue tag</p> <p>O&amp;M spares: Green tag</p>
<b>11.3.3</b>	Similar color scheme to be followed wherever stickers are pasted on components.
<b>11.4</b>	<p><b>STORAGE INSTRUCTIONS</b></p> <p>Successful tenderer shall be required to submit detailed instructions for storage of supplies within three months of date of issue of LOI /LOA/ Order/ Contract. In case storage instruction available in technical specification of the tender, same shall be followed by the vendors.</p>
<b>11.5</b>	<b>MATERIAL RECEIPT CERTIFICATE</b>



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## Chapter-XI: Material Handling, Transportation and Storage

	Bidder shall arrange Material Receipt Certificate from the project site, duly signed by BHEL / Owner (MPPGCL) Site Engineer after receipt & physical verification of the material at site.
<b>11.6</b>	<b>CONSIGNEE'S RIGHT OF REJECTION</b>
<b>11.6.1</b>	Notwithstanding any approval of Purchaser (BHEL) or Engineer in respect of plant/ equipment/ stores or materials or other particulars or work or workmanship involved in performance of order/ contract (with or without any test carried out by Bidder or Inspection Agency or under direction of Contract Engineer), and notwithstanding delivery of the plant/ equipment/ stores where so provided to the consignee, it shall be lawful for the consignee, on behalf of the Purchaser (BHEL), to reject the plant/ equipment/ stores or any part/ portion of consignment thereof, within 60 days after actual delivery at the stipulated place or destination, if such plant/ equipment/ stores or part/ portion of consignment thereof is not in conformity with terms and conditions of order/ contract whether on account of any loss, storage, deterioration or damage before dispatch or otherwise, whatsoever.
<b>11.6.2</b>	Rejected goods or materials shall be removed by Bidder within a period of 30 days from the date of receipt of notice of such rejection. The expenses to be incurred in respect thereof shall be borne entirely by the Bidder.
<b>11.7</b>	<b>RISK IN STORES</b> Bidder shall perform the order/ contract in all respects in accordance with terms and conditions thereof. Stores and every constituent part thereof, whether in possession or control of the Bidder, his agents or servants, or a carrier, or in joint possession of Bidder, his agent or servants and BHEL, his agents or servants, shall remain in every respect at the risk of Bidder until their actual delivery to consignee at the stipulated place or destination or where so provided in acceptance of offer, until their delivery to a person specified by BHEL as interim consignee for the purpose of dispatch to the consignee. Bidder shall be solely responsible for all losses, destructions, damages or deterioration to the plant/ equipment/ stores from any cause whatsoever, while the plant/ equipment/ stores await dispatch after approval by the Inspection Agency.
<b>11.8</b>	<b>SHORTAGES / DAMAGES</b> Any shortages or damages during unloading, storage and handling at site, including at the time of erection and commissioning, shall be made good by the Bidder at his risk and cost, to meet the project schedule. In case of faults/ discrepancies in any material, component, sub-assembly, assembly, etc., the same shall be supplied/ replenished free of cost to enable the equipment to be put to service.
<b>11.9</b>	<b>PHYTOSANITARY CERTIFICATE:</b> i) As per the Indian Law, all consignments being imported into India by air/sea require a phytosanitary certificate from the country of origin-if articles have been packed with wooden packaging materials. This is mandatory. Please confirm in your offer/dispatch documents that the required phytosanitary certificate will be submitted. ii) Packaging material means any kind of material of plant origin used for packing which include, hay, straw wood shavings, wood chips, saw dust, wood waste, wooden pallets, dunnage mats, wooden packages, coir pith, peat or sphagnum moss etc.
<b>11.10</b>	<b>DISPATCH MARKINGS</b>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XI: Material Handling, Transportation and Storage

	<p>Each package/ Drum delivered under the Contract shall be marked by Supplier as per details listed below and such marking must be distinct and in English language.</p> <ol style="list-style-type: none"> <li>Name and address of the consignee (to be intimated at the time of dispatch clearance)</li> <li>Dispatched by: (Vendor name)</li> <li>LR No. Package No./ Total Package No eg: 1 of N, 2 of N; where N=Total no of packages in a particular consignment.</li> <li>Type of Supply: <b>"Main equipment supply"/"Commissioning Spares"</b> as the case may be. Besides above necessary, packing shall bear a special marking "TOP", "BOTTOM", "DO NOT TURN OVER", "KEEP DRY", "HANDLE WITH CARE", etc.</li> <li>Compliance to Material Tracking System and Consignment Tracking System as per the SPMS guidelines.</li> </ol> <p>No item / equipment shall be dispatched without obtaining Material Dispatch clearance certificate from BHEL irrespective of inspection categories.</p> <p>The Contractor shall ensure that all the plant and equipment are suitably packed and protected to prevent damage or deterioration during its transportation to site, handling and storage at site till the time of its installation. The ownership of all such packing material shall stand transferred to the BHEL/ BHEL/ Owner (MPPGCL) upon dispatch of the plant and equipment.</p>
11.11	<p><b>E-Way Bill</b></p> <p>E-Way bill is to be generated by the bidder/ bidder's sub-vendor for transport of materials to the Project site, same shall be arranged by the bidder.</p> <p>The Bidder shall be responsible for the issuance of e-way bill and other compliances relating to e-way bill as per GST law.</p>
11.12	<p><b>Disposal of Surplus Material</b></p> <p>"Ownership of any Plant and Equipment in excess of the requirements for the Facilities (i.e. surplus material) shall revert to the Contractor upon Completion of the Facilities and Guarantee Test or at such earlier time when the Owner (MPPGCL)'s consultant/BHEL and the Contractor agree that the Plant and Equipment in question are no longer required for the Facilities, provided quantity of any Plant and Equipment specifically stipulated in the Contract shall be the property of the Owner whether or not incorporated in the Facilities. The Contractor shall remove from the site such surplus material brought by him in pursuance of the Contract, subject to the Contractor producing the necessary clearance from the relevant authorities (Customs, GST etc.), if required by law, in respect of re-export or disposal of the surplus material locally. The liability for the payment of the applicable taxes/duties, if any, on the surplus material so re-exported and/or disposed locally shall be that of the Contractor.</p> <p>The Contractor shall also indemnify to keep the Owner (MPPGCL)/BHEL harmless from any act of omission or negligence on the part of the Contractor in following the statutory requirements with regard to removal/disposal of surplus material. The Indemnity-cum-Undertaking Agreement shall be furnished by contractor. Further, in case the laws require the Owner (MPPGCL) to take prior permission of the relevant Authorities before handing over the surplus material to the Contractor, the same shall be obtained by the Contractor on behalf of the Owner (MPPGCL)/BHEL.</p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XI: Material Handling, Transportation and Storage

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11.13	<p><b>Disposal of Scrap</b></p> <p>The term 'Scrap' shall refer to scrap/ waste/ remnants arising out of the fabrication of structural steel work and piping work at the project site in the course of execution of the contract and shall also include any wastage of cables during the termination process while installing the cables.</p> <p>The ownership of such Scrap shall vest with the bidder except in cases where the items have been issued by the BHEL/Owner (MPPGCL) from its stores for their installation only without any adjustment to the Contract Price. The removal of scrap shall be subject to the Contractor producing the necessary clearance from the relevant authorities (Custom, GST etc.), if required by the law, in respect of disposal of the scrap. The liability for the payment of the applicable taxes/duties shall be that of the Contractor.</p>
11.14	<p><b>Scope of Material Management at Site</b></p>
11.14.1	<p>The intent of specification is to provide Material Handling and Materials Management services according to the most modern and proven Techniques and codes. The omission of specific reference to any method, equipment or materials necessary for proper and efficient unloading, transportation, verification, stacking &amp; preservation etc. shall not relieve the contractor of the responsibility of providing such facilities to complete the work without any extra compensation.</p>
11.14.2	<p>All necessary certificates and licenses required to carry out this work are to be arranged by the contractor expeditiously. The Contractor shall obtain independent Labour License under the Contract Labour (Regulations and Abolition) Act, 1970 for engaging contract labour as required from the concerned Authorities based on the certificate (Form- III or as applicable) issued by the Owner (MPPGCL).</p>
11.14.3	<p>All cranes, transport equipment's, handling equipment, tools, tackles, fixtures, equipment, manpower, supervisors/engineers, consumables required for this scope of work shall be provided by the contractor</p>
11.14.4	<p>All expenditure including incidentals in this connection will have to be borne by the contractor unless otherwise specified in the relevant clauses elsewhere here. The contractor's quoted rates shall include of all such contingencies</p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XII: Exclusions and Free issues items

<b>12.0</b>	<b>Exclusions and Free issues items</b>
<b>12.1</b>	<b>Exclusions:</b> Refer Scope Matrix & Battery Limit enclosed as <b>Annexure-2</b> .
<b>12.2</b>	<b>Free issues items:</b> Refer Scope Matrix & Battery Limit enclosed as <b>Annexure-2</b> .
<b>12.2.1</b>	<p>Bidder to note that, for the purpose of Owner (MPPGCL) conditions which requires item/component (such as DDCMIS, VMS) of <b>same make</b> to be used across various packages/system throughout the power plant. DDCMIS, VMS and their HMI &amp; LVS for various packages will be free issued items to BOP Vendor by BHEL. However, Bidder has to provide relevant engineering inputs. Handling, Storage, Erection, Testing &amp; Commissioning of aforementioned items shall be in the scope of the BOP Bidder, however BHEL shall provide necessary assistance for the same.</p> <p>Profibus System (along with profibus hardwares, cables and associated instruments) for BOP area shall be in BOP vendor scope.</p> <p>BOP vendor to place PO for Profibus system for BOP area considering the clause 4.00 of Standardisation of Hardware of TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC NO.: CW-CM-11159-C-O-M-001 and after confirmation from BTG vendor for compliance of the same.</p>
<b>12.2.2</b>	Though DCS will be a free-issued item to bidder by BHEL, Bidder's presence is required for at least 2 Man days (excluding travel time) at BHEL-EDN, Bangalore during FAT of DCS for each BOP package for certifying correctness & completeness of implementation of Control logic. All the expenses like boarding, lodging and travel, Air fare etc. shall be deemed included within the bidder's cost.
<b>12.2.3</b>	Supply of CW Pumps Rotor are excluded from bidder's scope as CW Pumps Rotor will be free issue to bidder by BHEL, however its E&C and alignment with system (as applicable) shall be in bidder' scope. Civil Works of Concrete Volute of CW Pump Stator shall be in BOP Vendor Scope as per design/drgs provided by BHEL.
<b>12.2.4</b>	<p>BFVs of size 400 NB and above for following pumping systems only shall be free issued by BHEL:</p> <ol style="list-style-type: none"> <li>1. CW make-up System</li> <li>2. APH/ESP Wash Water System</li> <li>3. Service Water System</li> <li>4. HVAC make-up System</li> <li>5. DMCW and ACW system</li> </ol> <p>BFVs of all sizes coming anywhere else in plant water system / Aux water system (AWS) shall be in BOP vendor scope.</p>
<b>12.2.5</b>	Supply of all RE Joint are excluded from bidder's scope as RE Joint will be free issue to bidder by BHEL, however its E&C and alignment with system (as applicable) shall be in bidder' scope.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XII: Exclusions and Free issues items

12.2.6	Supply of all DMCW Overhead Tank are excluded from bidder's scope as DMCW Overhead Tank (1 No) will be free issue to bidder by BHEL, however its E&C alignment with drive/system (as applicable) shall be in bidder' scope.
12.2.7	Supply of all HT Motors (except for AHP compressors, if applicable) are excluded from bidder's scope as HT motors will be free issue to bidder by BHEL as per No of Motors mentioned in Scope Matrix in Annexure-2, however its E&C alignment with drive system (as applicable) shall be in bidder' scope.
12.2.8	Supply of all HT Switchgear are excluded from bidder's scope as HT Switchgear will be free issue to bidder by BHEL as per BHEL designed Nos, however its E&C alignment with drive system (as applicable) shall be in bidder' scope.
12.2.9	Supply of all Busduct (SPBD, NSPDB & sandwich Busduct) excluded from bidder's scope as Busduct (SPBD, NSPDB & Sandwich Busduct) will be free issue to bidder by BHEL as per BHEL designed length, however its E&C alignment with drive system (as applicable) shall be in bidder' scope.
12.2.10	Execution of Bottom Ash Hopper foundation  Foundation works (including supply foundation bolts) for Bottom ash hopper is excluded from the bidder scope. However, vender should match the GA of superstructure in line with executed foundation footprint of BAH supplied by them.
12.2.11	Execution of MRS Silo foundation  Foundation works for MRS Silo is excluded from the bidder scope. However, vender should supply the MRS Silo and match the GA of superstructure in line with executed foundation footprint of MRS Silo.
12.2.12	Execution of Condensate Storage Tank (CST) foundation  Foundation works for CST is excluded from the bidder scope. However, vender should supply CST and match the GA of superstructure in line with executed foundation footprint of CST.
12.2.13	Compressor Building and Air Receiver Foundation  Civil works of Compressor Building and Air Receiver Foundation is excluded from the bidder scope. However, vender should supply Compressor and Air Receiver and match the GA of superstructure in line with executed Civil Works in Compressor Building and Air Receiver Foundation.
12.2.14	ACW & CST PH  Civil works of ACW & CST PH is excluded from the bidder scope. However, vender should supply ACW, DMCW & Other Pumps etc. and match the GA of superstructure of Pumps

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XII: Exclusions and Free issues items

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	etc. in line with executed Civil Works foundation.
12.2.15	Fire Protection System of BOP Area- Complete Fire Detection and Protection System (FDPS) unless specifically included in the scope. However, civil works pertaining to FDPS in BTG Area as per plot Plan Battery Limit (Except Pump Houses & Drill Towers) shall be in the scope of Bidder.
12.2.16	<p>Supply of High mast in BTG and BOP area shall be in BHEL scope. Total No. of High Mast shall be limited to 20 Nos. Bidder to provide power supply for 20 nos. (15nos. fixed &amp; 5nos. movable with DG) High Mast. All cables, cabling accessories for same shall be in BOP scope.</p> <p>Civil &amp; structure works along with erection and commissioning of High Mast foundation in BTG island area shall be in the scope of BHEL. E &amp; C and Civil &amp; structure works for High Mast foundation in BOP area shall be in the scope of BOP vendor.</p>
12.3	<p><b>Responsibility for Free Issued Items</b></p> <p>Upon handover, all free issued items shall become the sole responsibility of the BOP Vendor. In the event that any such items are lost, damaged, or rendered unusable during erection, installation, testing, or commissioning activities, BHEL shall not be liable to replenish or replace the same. The BOP Vendor shall, at its own cost and risk, arrange for the required replacements (by placing PO on BHEL) or alternatives to ensure completion of the contracted scope of work.</p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XIII: Terminal Points

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<b>13.0</b>	<b>TERMINAL POINTS</b>
<b>13.1</b>	Refer Scope Matrix & Battery Limit enclosed as Annexure-2.
<b>13.2</b>	<p><b>CW Piping Works</b></p> <p>Complete CW pipeline from CWPH to condenser inlet, interconnecting piping between condensers and from condenser outlet to NDCT E&amp;C shall be in BOP Vendor Scope including Civil Works (Encasing).</p> <p>The terminal point of Civil Works (Encasing) shall be upto the CW Pool-pit (Inside BTG Area).</p> <p>The terminal point of Mechanical, Electrical &amp; C&amp;I E&amp;C Works shall be upto the Condenser Inlet &amp; Outlet Nozzle.</p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XIV: Tools & Tackles

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<b>14.0</b>	<b>SPECIAL TOOLS AND TACKLES</b>
<b>14.1</b>	<p>The supply of special Tools &amp; Tackles as mentioned in Owner (MPPGCL) Specification shall be in the scope of bidder. Bidder shall refer enclosed <b>Attachment-4a of Annexure-1</b> and supply the applicable Special Tools &amp; Tackles mandatorily.</p> <p>If bidder recommends tools &amp; tackles, other than given in <b>Attachment-4a</b>, those may also be required, shall be supplied and handed over to Owner (MPPGCL) within bidder's quoted price.</p> <p>Tools shall be shipped in separate containers clearly marked with the name of equipment for which they are intended.</p> <p>The Contractor shall not use these special tools, tackles and testing/measuring equipment for erection/commissioning purposes and shall be in an unused and new condition, when they are handed over to the Employer.</p>



# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XV: Drawings & Document Submission

15.0	DRAWINGS AND DOCUMENTS SUBMISSION
15.1	<p>Bidder shall furnish the contain Full Details and Drawings of the Equipment, Furnished Data Sheet, Technical, Testing Procedures and O &amp; M manuals of the Equipment. <b>Bidder must submit drawing/documents as per list of drawing provided in BHEL NIT/ Owner (MPPGCL)'s technical specification.</b> Other drawings /documents to be submitted by the bidder shall be finalized with Owner (MPPGCL) (or their consultant) / BHEL after award of the contract and the bidder shall furnish the drawings / docs accordingly. Engineering drawing/doc must essentially contain the following (individual to system, equipment and items of but not limited to these and any drawing/ doc required desired by BHEL/ Owner (MPPGCL) shall be furnished by the vendor during detail engineering:</p> <ol style="list-style-type: none"> <li>General arrangements drawings of the individual equipment's, Ducting, associated accessories of BALANCE OF PLANTS (BOP) AS PER SCOPE MATRIX AND PLOT PLAN BATTERY LIMIT enclosed as annexures along with this Technical conditions of contract (TCC) included in the scope as specified.</li> <li>Civil assignment drawings with Load data for all above</li> <li>Various schedules</li> <li>Design calculations</li> <li>GA, Data sheets, Type test reports</li> <li>Fabrication drawings of chutes &amp; technological structures of machines</li> <li>Civil and Structural design, drawings including Fabrication, Erection drawings</li> <li>O&amp;M manuals and E&amp;C manuals and procedures</li> <li>PG test procedures, QAP, FQP</li> <li>Other drawing/documents specified in Owner (MPPGCL)'s NIT specification</li> <li>Cable Tray Layout, Earthing and Lightning Protection Layout</li> </ol>
15.2	<p>During detail engineering, bidder(s) shall ensure flow of drawings/docs as mentioned below:</p> <ol style="list-style-type: none"> <li>All drawings/documents and its subsequent revisions shall be submitted to Owner (MPPGCL)/ Owner (MPPGCL)'s Consultant for their review/approval through Document Management System (DMS) like Wrench portal, etc.</li> <li>Bidder shall intimate about the drawings/ docs' submission date to Owner (MPPGCL)/ Owner (MPPGCL)'s Consultant.</li> <li>It shall be respective bidder's responsibility for obtaining time bound approval on all the engineering drawings and documents from Owner (MPPGCL) / Owner (MPPGCL)'s Consultant and resolving the technical queries raised by BHEL/ Owner (MPPGCL). BHEL's role shall be limited to that of an enabler for arranging such technical discussion, meetings, video conferencing with Owner (MPPGCL)/ Owner (MPPGCL)'s Consultant.</li> <li>In the event Owner (MPPGCL)/ Owner (MPPGCL)'s Consultant doesn't approve the drawings then the commented drawings/docs as received from Owner (MPPGCL)/ Owner (MPPGCL)'s Consultant shall be sent to the vendor for revision.</li> <li>Revised drawings/docs with compliance in previous revision shall be submitted maximum within 3 days along with the compliance sheet as per the attached format.</li> <li>In case the drawings/docs are not found OK, then the same shall be again sent back to vendor for incorporation of comments/corrections and step i to v shall repeat till drawings/docs are found in order.</li> </ol>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XV: Drawings & Document Submission

	<p>The process as mentioned in point no. i to vi above shall follow till approval is received Owner (MPPGCL)'s Consultant.</p> <p><b>Note:</b> The Bidder shall consult BHEL for any interface inputs required for the scope of work in this package. It shall be sole responsibility of Bidder for any re-work, modification arising out of any discrepancy/mismatch in any drawings or documents so as to obtain acceptance of Owner (MPPGCL)/ Owner's Consultant. Bidder shall represent BHEL for all discussions pertaining to Payment, Technical issues, Design, Commercial, legal etc. with Owner (MPPGCL).</p>
15.3	Two (2 Nos.) English language copies of all national and international codes and/or standards used in the design of the plant and equipment's shall be provided by the contractor to the Owner (MPPGCL) within two calendar months from the date of LOI.
15.4	Schedule & number of copies required for submission should be as per the details given below:

Sl. No	Description	Type of copies required	Number of copies required	Schedule of submission
I.	Drawings / Documents for Approval	Soft Copies	-	Starting Two Weeks from LOI
II.	Revised Drawings / Documents Incorporating Owner (MPPGCL) Comments if any.	Soft Copies	-	Within 5 days after receipt of comments from Owner (MPPGCL)/consultant forwarded by BHEL
III.	Final Approved Drawings / Data / Documents	Prints & Soft Copies	6 Copies	One Week after Receipt of Approved Drawing from BHEL / Consultant.
IV.	Erection Drawings & Manuals	Prints	6 Copies	Eight (8) Weeks before the Dispatch of the Equipment.
V.	Pre-Commissioning / Commissioning Check List / Procedures.	Prints	6 copies	----- do -----
VI.	Quality Assurance Plan	Digitally submitted signed copy	1 Copy	Within 7 days after sub-vendor approval, drawing, data sheet approval
VII.	Final Operation & Maintenance Instruction Manuals	Prints & Soft Copies	One (1) Original & 6 Copies	One Month before the Dispatch of the Equipment.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XVI: Enclosures

<b>16.0</b>	<b>ENCLOSURES</b>
<b>16.1</b>	<p>Following enclosures are an integral part of this technical enquiry and must be signed and stamped and submitted along with the offer:</p> <ul style="list-style-type: none"> <li>• <b>Annexure-1:</b> Owner (MPPGCL) NIT Specification BIDDING DOCUMENT NO.: CW-CM-11233-C-O-M-001 including MPPGCL Technical Specification, Site Safety Plan and all Amendments &amp; Clarifications</li> <li>• <b>Annexure-2:</b> Scope Matrix &amp; Battery Limit along with Plot Plan Battery Limits</li> <li>• <b>Annexure-3:</b> BHEL Standard Guidelines/Drawing for Worker's Accommodation</li> <li>• <b>Annexure-4:</b> PVC Formula of MPPGCL applicable for the package.</li> <li>• <b>Annexure-5:</b> Construction Power Layout</li> <li>• <b>Annexure-6:</b> Drive List to Be Filled by Bidder</li> <li>• <b>Annexure-7:</b> 3D Drawing submission</li> <li>• <b>Annexure-8:</b> BATTERIES (MANAGEMENT &amp; HANDLING) RULES-2001, BATTERIES (MANAGEMENT AND HANDLING) AMENDMENT RULES-2010 and E- WASTE (MANAGEMENT) AMENDMENT RULES, 2018.</li> <li>• <b>Annexure-9:</b> BHEL's HSE Plan for Site Operations by Subcontractors Manual</li> <li>• <b>Annexure-10:</b> Mandatory Spares Declaration</li> <li>• <b>Annexure-11:</b> List of Mandatory Spares</li> <li>• <b>Annexure-12:</b> Declaration of Awareness of Site Constraints and Sourcing</li> </ul> <p><b>Note:</b> Bidder shall download above documents and declaration shall be submitted to BHEL for confirming that bidder has gone through all technical specification, amendment &amp; clarification of Owner (MPPGCL) and BHEL along with list of annexures enclosed with technical enquiry specification issued with this tender.</p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XVII: Taxes & Duties

<b>17.0</b>	<b>TAXES &amp; DUTIES</b>
<b>17.1</b>	<p>The contractor shall pay all (save the specific exclusions as enumerated in this clause) taxes, fees, license, charges, deposits, duties, tools, royalty, commissions, other charges, etc. which may be levied on the input goods &amp; services consumed and output goods &amp; services delivered in course of his operations in executing the contract. In case BHEL is forced to pay any of such taxes/duties, BHEL shall have the right to recover the same from his bills or otherwise as deemed fit.</p> <p>However, provisions regarding GST on output supply (goods/service) and TDS/TCS as per Income Tax Act shall be as per following clauses.</p>
<b>17.2</b>	<b>GST (Goods and Services Tax)</b>
<b>17.2.1</b>	<p>GST as applicable on output supply (goods/services) are excluded from contractor's scope; therefore, contractor's price/rates shall be exclusive of GST. Reimbursement of GST is subject to compliance of following terms and conditions. BHEL shall have the right to deny payment of GST and to recover any loss to BHEL on account of tax, interest, penalty etc. for non-compliance of any of the following condition.</p>
<b>17.2.2</b>	<p>The admissibility of GST, taxes and duties referred in this chapter or elsewhere in the contract shall be limited to direct transactions between BHEL &amp; its Contractor. BHEL shall not consider GST on any transaction other than the direct transaction between BHEL &amp; its Contractor.</p>
<b>17.2.3</b>	<p>Contractor shall obtain prior written consent of BHEL before billing the amount towards such taxes. Where the GST laws permit more than one option or methodology for discharging the liability of tax/levy/duty, BHEL shall have the right to adopt the appropriate one considering the amount of tax liability on BHEL/Client as well as procedural simplicity with regard to assessment of the liability. The option chosen by BHEL shall be binding on the Contractor for discharging the obligation of BHEL in respect of the tax liability to the Contractor.</p>
<b>17.2.4</b>	<p>Contractor has to submit GST registration certificate of the concerned state. Contractor also needs to ensure that the submitted GST registration certificate should be in active status during the entire contract period.</p>
<b>17.2.5</b>	<p>Contractor/Vendor has to issue Invoice/Debit Note/Credit Note indicating HSN/SAC code, Description, Value, Rate, applicable tax and other particulars in compliance with the provisions of relevant GST Act and Rules made thereunder.</p>
<b>17.2.6</b>	<p>Vendor has to submit GST compliant invoice within the due date of invoice as per GST Law. In case of delay, BHEL reserves the right of denial of GST payment if there occurs any hardship to BHEL in claiming the input thereof. In case of goods, vendor has to provide scan copy of invoice &amp; GR/LR/RR to BHEL before movement of goods starts to enable BHEL to meet its GST related compliances. Special care should be taken in case of month end transactions.</p>
<b>17.2.7</b>	<p>Vendor has to ensure that invoice in respect of such services which have been provided/completed on or before end of the month should not bear the date later than last working day of the month in which services are performed.</p>
<b>17.2.8</b>	<p>Subject to other provisions of the contract, GST amount claimed in the invoice shall be released on fulfilment of all the following conditions by the Contractor: -</p> <ul style="list-style-type: none"><li>a. Supply of goods and/or services have been received by BHEL.</li><li>b. Original Tax Invoice has been submitted to BHEL.</li></ul>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XVII: Taxes & Duties

	<p>c. Contractor/ Vendor has submitted all the documents required for processing of bill as per contract/ purchase order/ work order.</p> <p>d. In cases where e-invoicing provision is applicable, vendor/contractor is required to submit invoice in compliance with e-invoicing provisions of GST Act and Rules made thereunder.</p> <p>e. Contractor has filed all the relevant GST return (e.g. GSTR-1, GSTR-3B, etc.) pertaining to the invoice submitted and submit the proof of such return along with immediate subsequent invoice. In case of final invoice/ bill, contractor has to submit proof of such return within fifteen days from the due date of relevant return.</p> <p>f. Respective invoice has appeared in BHEL's GSTR - 2A for the month corresponding to the month of invoice and in GSTR-2B of the month in which such invoices has been reported by the contractor along with status of ITC availability as "YES" in GSTR-2B. Alternatively, BG of appropriate value may be furnished which shall be valid at least one month beyond the due date of confirmation of relevant payment of GST on GSTN portal or sufficient security is available to adjust the financial impact in case of any default by the contractor.</p> <p>g. Contractor has to submit an undertaking confirming the payment of all due GST in respect of invoices pertaining to BHEL.</p>
17.2.9	Any financial loss arises to BHEL on account of failure or delay in submission of any document as per contract/purchase order/work order at the time of submission of Tax invoice to BHEL, shall be deducted from contractor's bill or otherwise as deemed fit.
17.2.10	TDS as applicable under GST law shall be deducted from contractor's bill.
17.2.11	Contractor shall comply with the provisions of e-way bill wherever applicable. Further wherever provisions of GST Act permit, all the e-way bills, road permits etc. required for transportation of goods needs to be arranged by the contractor.
17.2.12	Contractor shall be solely responsible for discharging his GST liability according to the provisions of GST Law and BHEL will not entertain any claim of GST/interest/penalty or any other liability on account of failure of contractor in complying the provisions of GST Law or discharging the GST liability in a manner laid down thereunder.
17.2.13	In case declaration of any invoice is delayed by the vendor in his GST return or any invoice is subsequently amended/alterd/deleted on GSTN portal which results in any adverse financial implication on BHEL, the financial impact thereof including interest/penalty shall be recovered from the Contactor's due payment.
17.2.14	Any denial of input credit to BHEL or arising of any tax liability on BHEL due to non-compliance of GST Law by the Contractor in any manner, will be recovered along with liability on account of interest and penalty (if any) from the payments due to the Contactor.
17.2.15	In the event of any ambiguity in GST law with respect to availability of input credit of GST charged on the invoice raised by the contractor or with respect to any other matter having impact on BHEL, BHEL's decision shall be final and binding on the contractor.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XVII: Taxes & Duties

17.2.16	<p><b>Variation in Taxes &amp; Duties:</b></p> <p>Any upward variation in GST shall be considered for reimbursement provided supply of goods and services are made within schedule date stipulated in the contract or approved extended schedule for the reason solely attributable to BHEL. However downward variation shall be subject to adjustment as per actual GST applicability.</p> <p>In case the Government imposes any new levy/tax on the output service/goods after price bid opening, the same shall be reimbursed by BHEL at actual. The reimbursement under this clause is restricted to the direct transaction between BHEL and its contractor only and within the contractual delivery period only.</p> <p>In case any new tax/levy/duty etc. becomes applicable after the date of Bidder's offer but before opening of the price Bid, the Bidder/Contractor must convey its impact on his price duly substantiated by documentary evidence in support of the same before opening of price bid. Claim for any such impact after opening the price bid will not be considered by BHEL for reimbursement of tax or reassessment of offer.</p>
17.2.17	<p>The ownership of goods (i.e. property in the goods) supplied under scope of supply of goods is transferred to BHEL / Owner (MPPGCL) on ex-manufacturing works / place of dispatch of goods. Thereafter, after taking possession of the said goods by BHEL / Owner (MPPGCL), these are being provided to Contractor on bailment basis for the purpose of erection, testing and commissioning. Regarding Civil Works, the complete scope of supply of civil material and civil services is under civil allocation.</p>
17.3	<p><b>Income Tax:</b></p> <p>TDS/TCS as applicable under Income Tax Act, 1961 or rules made thereunder shall be deducted/collected from contractor's bill.</p>
17.4	<p><b><u>Statutory Variation:</u></b></p> <p>Such duties, taxes, levies etc. which are not part of 4.1 above and is notified after the last date of submission of Bid and within the contractual schedule delivery including clear time extension without levy of LD, increase over the rate existing on the last date of submission of Bid, shall be reimbursed by the company on production of documentary evidence in support of payment actually made to the concerned authorities. Similarly, if there is any decrease in such duties, taxes and levies, the same shall become recoverable from the contractor. However, seller/ contractor shall obtain prior approval from BHEL before depositing new taxes &amp; duties. Benefits and/ or abolition of all existing taxes must be passed on to BHEL, by the seller/ contractor, against new taxes &amp; duties, if any, introduced at a later date. The benefits shall be passed on in terms of commensurate reduction in the basic price. No other variations such as on Custom Duty, exchange rate, minimum wages, prices of controlled commodities, any other input etc. shall be payable by the purchaser unless specifically agreed upon.</p>
17.5	<p>All taxes, duties &amp; levies including entry tax may be applicable on the materials used for civil construction works and erection and commissioning shall be to the contractor's account and no separate claim in this regard will be entertained by BHEL.</p>
17.6	<p>The prices quoted shall be inclusive of all Taxes, Duties, Levies &amp; charges, except Goods and Services Tax (GST).</p>
17.7	<p><b>BOCW Act:</b> BOCW Cess is not to be borne by contractor. Refer Annexure below for BOCW Act &amp; Cess Act.</p>
BOCW Annexure	

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XVII: Taxes & Duties

Bidder may please note that the sub-contractor/bidder of BHEL engaging building or construction worker in connection with building or other construction work, are required to follow the procedures enumerated below:

17.7.1

### BOCW Act & Cess Act

1. **For Supply contract:** BOCW Cess is not to be borne by contractor. BHEL shall reimburse the contractor the Cess amount deposited for the purposes of the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 under the Building and other Construction Workers' Welfare Cess Act, 1996 and the rules made thereunder. However, BHEL shall not reimburse the Fee paid towards the registration of establishment, fees paid towards registration of Beneficiaries and Contribution of Beneficiaries remitted.
2. **For Services contract excluding Civil Works and Site fabricated structure :** BOCW Cess is not to be borne by contractor. BHEL shall reimburse the contractor the Cess amount deposited for the purposes of the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 under the Building and other Construction Workers' Welfare Cess Act, 1996 and the rules made thereunder. However, BHEL shall not reimburse the Fee paid towards the registration of establishment, fees paid towards registration of Beneficiaries and Contribution of Beneficiaries remitted.
3. **For Services contract for Civil Works and Site fabricated structure :** BOCW Cess is to be borne by contractor and the quoted price shall be inclusive of BOCW cess. BHEL shall not reimburse the contractor the Cess amount deposited for the purposes of the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 under the Building and other Construction Workers' Welfare Cess Act, 1996 and the rules made thereunder. Also BHEL shall not reimburse the Fee paid towards the registration of establishment, fees paid towards registration of Beneficiaries and Contribution of Beneficiaries remitted

Bidder may please note that the sub-contractor/bidder of BHEL engaging building or construction worker in connection with building or other construction work, are required to follow the procedures enumerated below:

17.7.2

It shall be the sole responsibility of the contractor as employer to ensure compliance of all the statutory obligations under the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 and the Building and other Construction Workers' Welfare Cess Act, 1996 and the rules made thereunder.



# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XVII: Taxes & Duties

17.7.3	It shall be sole responsibility of the contractor engaging Building Workers in connection with the building or other construction works in the capacity of employer to apply and obtain registration certificate specifying the scope of work under the relevant provisions of the Building and Other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 from the appropriate Authorities.
17.7.4	It shall be responsibility of the contractor to furnish a copy of such Registration Certificate within a period of one month from the date of commencement of Work.
17.7.5	It is responsibility of the contractor to register under the Building and other Construction Workers' Welfare Cess Act, 1996 and deposit the required Cess for the purposes of the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 at such rate as the Central Government may, by notification in the Official Gazette, from time to time specify. However, before registering and deposit of Cess under the Building and other Construction Workers' Welfare Cess Act, 1996, the contractor will seek written prior approval from the Construction Manager.
17.7.6	It shall be sole responsibility of the contractor as employer to get registered every Building Worker, who is between the age of 18 to 60 years of age and who has been engaged in any building or other construction work for not less than ninety days during the preceding twelve months as Beneficiary under the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996.
17.7.7	It shall be sole responsibility of the contractor as employer to maintain all the registers, records, notices and submit returns under the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 and the Building and other Construction Workers' Welfare Cess Act, 1996 and the rules made thereunder.
17.7.8	i) It shall be sole responsibility of the contractor as employer to provide notice of poisoning or occupation notifiable diseases, to report of accident and dangerous occurrences to the concerned authorities under the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 and the rules made thereunder and to make payment of all statutory payments & compensation under the Employees' Compensation Act, 1923.
17.7.9	It shall be the responsibility of the sub-contractor as employer to make payment/deposit of applicable cess amount on the extent of work involving building or construction workers engaged by the sub-contractor within a period of one month from the receipt of payment. It shall also be responsibility of the Contractor to furnish BHEL on monthly basis, Receipts/ Challans towards Deposit of the Cess under the Building and other Construction Workers' Welfare Cess Act, 1996 and the rules made thereunder along with following statistics:  a. Number of Building Workers employed during preceding one month.



# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XVII: Taxes & Duties

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	<p>b. Number of Building workers registered as Beneficiary during preceding one month.</p> <p>c. Disbursement of Wages made to the Building Workers for preceding wage month.</p> <p>Remittance of Contribution of Beneficiaries made during the preceding month</p>
<b>17.7.10</b>	BOCW remittance should be made only after obtaining prior consent from BHEL. Contractor shall make remittance of the BOCW Cess as per the Act in consultation with BHEL as per the rates in force.
<b>17.7.11</b>	It shall be responsibility of the Building Worker engaged by the Contractor and registered as a beneficiary under the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 to contribute to the Fund at such rate per mensem as may be specified by the State government by notification in the Official Gazette. Where such beneficiary authorizes the contractor being his employer to deduct his contribution from his monthly wages and to remit the same, the contractor shall remit such contribution to the Building and other construction Workers' Welfare Board in such manner as may be directed by the Board , within the fifteen days from such deduction.
<b>17.7.12</b>	<b>If at any point of time during the contract period, non-compliance of the provisions of the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 and the Building and other Construction Workers' Welfare Cess Act, 1996 and the rules made thereunder is observed, BHEL reserves the right to deduct the applicable cess ( on the contract value and penalty ( if any, imposed by Cess Authorities) from the payables on account of non-compliance.</b>
<b>17.7.13</b>	The contractor shall declare to undertake any liability or claim arising out of employment of building workers and shall indemnify BHEL from all consequences / liabilities / penalties in case of non-compliance of the provisions of the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 and the Building and other Construction Workers' Welfare Cess Act, 1996 and the rules made thereunder.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XVIII: Inspection, Testing & Dispatch

<b>18.0</b>	<b>INSPECTION AGENCY</b>
	<p>Shall be read in conjunction with this tender Technical Conditions of Contract (TCC).</p> <p>Inspection shall be carried out by Owner (MPPGCL) / Owner (MPPGCL)'s consultant/ BHEL/ Third Party Inspection Agency based on the inspection schedule/ category as per approved QAP/ categorization plan/ document.</p> <p>Seller / contractor shall give inspection call in line with approved QAP/ Owner (MPPGCL) Hold Points to BHEL/ Third Party Inspection Agency (as informed by BHEL) for arranging Owner (MPPGCL) / Owner (MPPGCL)'s Consultant /Third Party participation (wherever applicable), with an advance notice of 15 working days (for indigenous items) and 45 working days (for imported items) for participation in inspection/ Joint inspection on the proposed date.</p> <p>During the inspection, if the equipment's are found to be not ready for inspection, all expenses incurred by BHEL / Owner (MPPGCL)/Consultant / Inspection Agency, on such planned visit will be recovered from seller / contractor. Therefore, seller to ensure readiness of equipment in all respect before the inspection.</p> <p>No item / equipment's shall be dispatched without obtaining Material Dispatch clearance certificate from BHEL irrespective of inspection categories.</p> <p>Inspection calls are to be raised by the seller / contractor through BHEL Inspection portal <a href="https://cqir.bhel.in/">https://cqir.bhel.in/</a> or any other portal / method as instructed by BHEL from time to time.</p>
<b>18.1</b>	<b>INSPECTION AND TESTING AT CONTRACTOR'S PREMISES</b>
<b>18.1.1</b>	<p>BHEL/ Owner (MPPGCL) nominated Inspection Agency shall have at all reasonable times access to bidder's premises or works and shall have the power at all reasonable times to inspect drawings of any portion of the work or examine the materials and workmanship of the plant/ equipment/ stores during their manufacture, and if part of the plant/ equipment/ stores is manufactured at other premises, the Bidder shall arrange for inspection, examination and testing by the Inspection Agency as if the plant/ equipment/ stores is manufactured on the Bidder's premises.</p> <p>Inspection calls should be raised by the Bidder on BHEL CQS Website/CQIR website link. Such inspection, examination and testing by itself shall not relieve the Bidder from any obligation under the Order/ Contract.</p> <p>Non-conformance from the contract specifications shall be reported by the Bidder.</p>
<b>18.1.2</b>	<p>Seller/Contractor shall give Inspection Agency reasonable notice of any material being ready for testing and the Inspection Agency shall (unless the inspection of tests is voluntarily waived) attend at the Bidder's premises within fifteen (15) days of the date on which the material is notified as being ready. All standard shop tests, physical and chemical tests required by the standards or as may be prescribed or approved as per Order/ Contract shall be conducted by the Bidder. Purchaser (BHEL)/ Inspection Agency reserves the right to waive any of the above tests requirements and to prescribe new tests, if found necessary, to complete the work so as to conform to the best practices. Bidder shall forthwith forward to the Inspection Agency, duly certified copies of the test certificates in quadruplicate, for approval. Further copies of the shop test certificates shall be bound with the instruction manuals referred to in "Bidder's documents, drawings and instruction manuals". In case of delay in witnessing of inspection beyond stipulated time (i.e. 15 days from the date on which the material is notified as being ready), by BHEL arising due to</p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XVIII: Inspection, Testing & Dispatch

	reasons not attributable to vendor, BHEL will extend the delivery period for such delay in carrying out inspection.
18.1.3	Where the Order/ Contract provides for tests/ inspections at the premises or works of the Contractor or any sub-contractor, the Bidder, except specified otherwise, shall provide free of charge such assistance, labour, materials, electricity, fuel, water, stores, apparatus, measuring instruments and test equipment including any other facilities as may be reasonably required to carry out such tests efficiently.
18.2	<b>INSPECTION MEASURING AND TEST EQUIPMENT'S</b>
18.2.1	Inspection Measuring and Test Equipment (IMTE) whether used by the Bidder or subcontractor shall be calibrated, maintained and controlled. Calibration shall be valid and IMTE maintained in sound condition during usage.
18.2.2	<p>In addition to above, Contractor shall ensure the following:</p> <ul style="list-style-type: none"> <li>i. Measurement uncertainty is known and consistent with required measurement capability of the IMTE.</li> <li>ii. Selection of IMTEs is compatible with the necessary accuracy and precision of required measurement.</li> <li>iii. IMTEs are calibrated at the required intervals against certified equipment having known valid relationship to nationally recognized standards, at recognized calibration labs.</li> <li>iv. Calibration records are available and traceable to the particular IMTE.</li> <li>v. In case, during recalibration, the IMTE is found out of calibration, report on action taken to validate the previous results along with both calibration records of the IMTE to be furnished to Inspection Agency.</li> <li>vi. IMTEs are stored, handled and preserved such that accuracy and fitness are maintained and safeguarded from adjustments.</li> </ul> <p><b>Note</b> -BHEL's decision on acceptability of the product in such cases shall be binding.</p>
18.2.3	Responsibility of usage of valid and calibrated IMTEs by his sub-contractor(s) shall be of the seller/contractor.
18.2.4	In case, calibration records are required by BHEL/ Owner (MPPGCL), copies of the same shall be furnished.
18.2.5	Bidder shall be fully responsible for the Quality of products supplied by sub-contractors.

18.3	<b>MATERIAL DISPATCH CLEARANCE CERTIFICATE (MDCC)</b>
18.3.1	When the tests have been satisfactorily completed at Bidder's works, the Inspection Agency shall issue an inspection report that effect within seven (07) days after completion of the tests, but if the tests were not witnessed by the Inspection Agency or his representative, the material acceptance report would be issued within seven (07) days after receipt of the test certificates by the BHEL.
18.3.2	BHEL/ Owner (MPPGCL) will issue MDCC to the Bidder within 7 days based on inspection report/ test certificates/Certificate of Conformance as applicable. In case of delay in issuance of MDCC beyond 7 days stipulated time (i.e. from the date of successful inspection report), by BHEL arising due to reasons not attributable to vendor, BHEL will extend the delivery period for such delay in issuing MDCC.
18.3.3	Bidder shall not dispatch any material before issue of MDCC by BHEL/Owner (MPPGCL).

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XVIII: Inspection, Testing & Dispatch

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18.3.4	Satisfactory completion of tests or issue of MDCC shall not relieve the bidder from its obligations in terms of the contract provisions.
18.3.5	Bidder to intimate BHEL (by email, in case of supply of goods) immediately on removal of goods, along with legible scanned copy of all relevant details & documents like tax invoice, packing list, delivery challan, Lorry/ Courier Receipt, e-way bill etc.
18.3.6	BHEL require original <b>GR / Lorry/ Courier Receipt</b> on dispatch for billing to BHEL's customer. Such original documents, shall be submitted to BHEL in original immediately on the date of removal of goods/ generation of the document, whichever is earlier.
18.3.7	BHEL may insist on using online dispatch intimation/ document submission/ data entry system during execution of the order/ contract. BHEL may also insist on preparation of certain documents/ details in specific formats. The bidder shall comply with the same.
18.4	<p><b>QUALITY ASSURANCE DOCUMENTS (AS APPLICABLE)</b></p> <p>The vendor shall be required to submit the following Quality Assurance Documents (in original + one copy) within 2 weeks after dispatch of the equipment (as applicable).</p> <ul style="list-style-type: none"> <li>i) Test report of components.</li> <li>ii) Non-destructive examination results/ reports including radiography interpretation reports.</li> <li>iii) Welder identification list listing welders and welding operator's qualification procedures and welding identification symbols.</li> <li>iv) Sketches and drawings used for indicating methods of traceability of the radiographs to the location of the equipment.</li> <li>v) Stress relief time temperature charts.</li> <li>vi) Factory test results for testing required as per applicable codes and standards referred to in the specification.</li> <li>vii) Inspection Report duly signed by QA Personnel of BHEL/ Third Party/and Owner (MPPGCL) / Owner (MPPGCL)'s Consultant and vendor for the agreed inspection hold points. During course of inspection the following will also be recorded: <ul style="list-style-type: none"> <li>i. When some important work repair work is involved to make the job acceptable.</li> <li>ii. The repair works remain part of the accepted product quality.</li> <li>iii. Letter of conformity certifying</li> </ul> </li> </ul>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XIX: Tentative BBU Format

19.0	BBU FORMAT (TENTATIVE):			
	<b>BROAD SCOPE:</b> The Scope for Complete Design, engineering, manufacturing, inspection, testing, painting, supply/ delivery duly packed at project site including transportation upto site, receipt, unloading, storage, security & handling at site, complete civil & structural works, construction, erection, testing, commissioning, final painting at site, trial run, PG Test, handing over, Completion of Facilities, Annual Maintenance till handover, Training, Guarantee and Warranty, Defect Liability Period etc. in line with drawings/ documents/ test procedures approved by BHEL/ Owner (MPPGCL), and conforming to the MPPGCL Contract, on the basis of <b>Single Point Responsibility</b> for total scope defined in BALANCE OF PLANTS (BOP) AS PER SCOPE MATRIX AND PLOT PLAN BATTERY LIMIT enclosed as annexures along with this Technical conditions of contract (TCC) & relevant provisions elsewhere taking into account all clarifications, confirmations, amendments and agreements till date for BOP EPC package complete with all accessories, including supply of consumables, erection & commissioning spares, special tools & tackles for maintenance, mandatory spares, etc. for 1 X 660 MW Satpura TPS, Unit-12, Sarni, MP.			
	Description	UOM	Qty	Price Break-up
<b>A</b>	<b>Main supply- Plant and Equipment (Design &amp; Supply) (Ex-works)</b>			
A.1	CHP & BHP	LOT	1	
A.2	AHP	LOT	1	
A.3	NDCT	LOT	1	
A.4	Water System	LOT	1	
A.5	Others	LOT	1	
<b>B</b>	<b>Installation/ Erection &amp; Commissioning Services (Excluding Civil and Site Fabricated Structural Works Portion)</b>			
B.1	CHP & BHP	LOT	1	
B.2	AHP	LOT	1	
B.3	NDCT	LOT	1	
B.4	Water System	LOT	1	
B.5	Others	LOT	1	
<b>C</b>	<b>Civil Works (Including associated supply)</b>			
C.1	CHP & BHP	LOT	1	
C.2	AHP	LOT	1	
C.3	NDCT	LOT	1	
C.4	Water System	LOT	1	
C.5	Others	LOT	1	
<b>D</b>	<b>Site Fabricated Structural Works (Supply &amp; Installation)</b>			
D.1	CHP & BHP	LOT	1	
D.2	AHP	LOT	1	
D.3	NDCT	LOT	1	
D.4	Water System	LOT	1	
D.5	Others	LOT	1	
<b>E</b>	<b>Mandatory Spares (Supply &amp; Freight) (Ex-works) *</b>	LOT	1	
<b>F</b>	<b>Transportation (Main Supply)</b>	LOT	1	
<b>G</b>	<b>AMC Charges</b>	LOT	1	
<b>H</b>	<b>Training Charges</b>	LOT	1	

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XIX: Tentative BBU Format

	Total Price of Package (A+B+C+D+E+F+G+H) without GST			
	Total Price of Package in Words (Rs.)			
<p>*The Bidder shall further provide an itemised price for each Mandatory Spare listed in Annexure 11 within one month of issue of LOI. The total of the itemised prices must correspond to the value derived from the percentage declared in Annexure 10. The itemised pricing submitted by the Bidder shall be subject to BHEL's review and approval (BHEL reserves the right to make additions or deletions in the Mandatory Spare List.).</p> <p><b>Note:</b></p> <p>1. <b>Type Test Charges</b> shall be paid extra at actuals, if conducted as per the requirement.</p> <p>2. <b>BBU Price Range: -</b></p> <p>I. BBU Price for Supply (SI No.- 19. A &amp; F) shall be between 35% to 45% of total contract value</p> <p>II. BBU Price for Installation/ E&amp;C (SI No.-19. B, G &amp; H) shall be between 10% to 15% of total contract value</p> <p>III. BBU Price for Civil &amp; Structure (SI No.-19. C &amp; D) shall be between 40% to 45% of total contract value (considering Site fabricated structure with welded joints)</p> <p>IV. BBU Price for Mandatory Spares (SI No.-19. E) shall be less than 4% as also given in Annexure-10</p>				