

**EPC- AHP & MRHS  
PACKAGE**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

**EPC PACKAGE FOR ASH HANDLING  
SYSTEM PACKAGE AND MILL REJECT  
HANDLING SYSTEM**

**AT**

**3x800MW, NLC TALABIRA THERMAL  
POWER PROJECT, JHARSUGUDA,  
ODISHA**

# Volume-1A

**BHARAT HEAVY ELECTRICALS LIMITED**



**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter-I Project Information**

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# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-I Project Information

### 01.00 Project Information:

Sl. No.	Description	Details
1	<b>Project Title</b>	3 x 800MW NLC Talabira Thermal Power Project (NTTTPP)
2	<b>Customer</b>	NLC India Limited (NLCIL)
3	<b>Owner's Consultant</b>	Development Consultants Private Limited (DCPL)
4	<b>Nearest Airport</b>	Jharsuguda airport at a distance of 21 km, Sambalpur airport at a distance of 35 km Bhubaneswar at a distance of 350 km and Raipur airport is at a distance of approx. 290 km.
5	<b>Access by Road/Major Cities</b>	<p>Nearest Road - Sambalpur – Jharsuguda highway after crossing Bhedan River via state PWD road</p> <p>Nearest Village- Kumbhari and Tareikela villages on south west of Brijraj Nagar town on Sambalpur Rourkela highway in Jharsuguda district</p> <p>Nearest Town - Jharsuguda (approx. 11 km)</p> <p>Nearest Railway Station - Jharsuguda on Howrah-Nagpur main (trunk) section is at a distance of 11 km</p> <p>Nearest Seaport - Paradeep (Approx. 450 km) and Kolkata (Approx. 550 km)</p> <p>State capital - Bhubaneswar (350 km)</p>
6	<b>Temperature</b>	<p>a) Mean Ambient Temperature</p> <p style="padding-left: 40px;">Maximum      33.1°C</p> <p style="padding-left: 40px;">Minimum      20.7°C</p> <p style="padding-left: 40px;">Average        27.5°C</p> <p>b) Extreme Ambient Temperature</p> <p style="padding-left: 40px;">Maximum      48°C</p> <p style="padding-left: 40px;">Minimum      6°C</p> <p>c) Mean Wet-bulb Temperature - 26.3°C</p>
7	<b>Seismic Zone</b>	The project site lies in zone III as defined in IS: 1893.
8	<b>Wind Speed</b>	In accordance with IS-875, for a basic wind speed of 44 m/s, up to a height of 10 meters above mean ground level. Pre-dominant Wind direction is from South-West.

The basic information about the project is tabulated above and the Present proposal is for setting up 3x800 MW NLC Talabira Thermal Power Project, for NLC India Limited (NLCIL) with all the facilities

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-I Project Information

as specified in the NIT. General information related to the project and site is available in ANNEXURE-1, and plot plan of the project in Annexure-4 enclosed along with this enquiry specification.

1	<b>INSTRUCTIONS TO BIDDERS</b>	
2	The Bidder shall visit project site and acquire full knowledge and information about conditions prevailing at site and in & 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.	
3	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.	
4	The information given herein is for general guidance and shall not be contractually binding on BHEL/Owner. 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.	
5	No claim will be entertained by BHEL on ground of lack of knowledge and the bidder's rates shall be deemed to have taken this into account.	
6	Bidders may fix up their site visit in consultation with below mentioned contact person:	
	<b>Name:</b>	Mr. Subrata Kumar Adak Mr. Chittaranjan Samal
	<b>Designation:</b>	Addl GM (Project Director) Sr Manager
	<b>Email:</b>	subrata.adak@bhel.in csamal@bhel.in
	<b>Ph. No.</b>	7347031209 8331936594

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter-II Facilities in the Scope of Bidder/BHEL**

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<b>02.00 Facilities in the Scope of Bidder/BHEL</b>				
<b>Sl. No</b>	<b>Description</b>	<b>Scope</b>		<b>Remarks</b>
		<b>BHEL</b>	<b>Bidder</b>	
<b>02.01</b>	Establishment:			
<b>2.1.1</b>	For Construction Purpose:			
a	Open space for office	Yes		Location will be finalized after joint survey with owner.
b.1	Open space for storage		Yes	Construction of open storage yard shall be in the bidder's scope Bidder shall also consider fencing/illumination of open storage and site fabrication area as and when allocated at site. Location will be finalized after joint survey with owner.
b.2	Construction of Closed Storage Shed		Yes	Construction of closed storage shed for the storage of materials (Including BHEL free supply items if, any) shall be in the bidder's scope
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 etc.		Yes	
G	Fencing of storage area, office, canteen etc. of the bidder		Yes	
H	Development of land provided for office, storage, fabrication yard, etc.		Yes	
<b>2.1.2</b>	<b>For living purpose of the bidder:</b>			

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter-II Facilities in the Scope of Bidder/BHEL**

<b>02.00 Facilities in the Scope of Bidder/BHEL</b>				
<b>Sl. No</b>	<b>Description</b>  <b>PART I</b>	<b>Scope</b>		<b>Remarks</b>
		<b>BHEL</b>	<b>Bidder</b>	
A	Open space for labour colony		Yes	Bidder has to make his own arrangements for shelter and transportation of labour as per requirement.
B	Labour Colony with internal roads, sanitation, complying with statutory requirements		Yes	Construction Plan shall be approved by BHEL/Customer. Bidder to refer Annexure-A (Standard Guidelines for workers Accommodation)
<b>02.02</b>	<b>Electricity: (Chargeable)</b>			
<b>2.2.1</b>	<b>Electricity for construction purposes (for Site/Project works only) 3 Phase 415/440 V within project premises</b>		<b>Yes</b>	<b>Refer Clause 2.12</b>
A	Single point source	Yes	Yes	
B	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	At contractor's own cost.
C	Distribution of Electricity for the office, stores, canteen, of the contractor which include supply of materials and execution		Yes	At contractor's own cost.
D	Supply, installation and connection of energy meter including operation and maintenance		Yes	At contractor's own cost. Calibration certificate to be provided.
E	Duties and deposits including statutory clearances if applicable		Yes	At contractor's own cost.
F	Demobilization of all the facilities after completion of works		Yes	At contractor's own cost.
<b>2.2.2</b>	<b>Electricity for office, stores, canteen etc. of the bidder</b>			
A	Single point source		<b>Yes</b>	<b>Refer Clause 2.12</b>
B	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	At contractor's own cost.
C	Duties and deposits including statutory clearances if applicable		Yes	At contractor's own cost.

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter-II Facilities in the Scope of Bidder/BHEL**

<b>02.00 Facilities in the Scope of Bidder/BHEL</b>				
<b>Sl. No</b>	<b>Description</b>	<b>Scope</b>		<b>Remarks</b>
		<b>BHEL</b>	<b>Bidder</b>	
	<b>PART I</b>			
<b>2.2.3</b>	<b>Electricity for living accommodation of the bidder's staff, engineers, supervisors, labour Hutment etc.</b>			
A	Single point source		<b>Yes</b>	
B	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	At contractor's own cost.
C	Payment/Duties and deposits including statutory clearances if applicable		Yes	At contractor's own cost.
<b>02.03</b>	<b>Water Supply:</b>			
<b>2.3.1</b>	<b>For construction purposes:</b>			<b>Refer Clause 02.13</b>
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	
<b>2.3.2</b>	<b>Water supply for bidder's office, stores, canteen etc.</b>			<b>Refer Clause 02.13</b>
A	Making the water available at single point		Yes	At contractor's own cost
B	Further distribution as per the requirement of work including supply of materials and execution		Yes	At contractor's own cost
<b>2.3.3</b>	<b>Water supply for Living Purpose</b>			<b>Contractor has to make his own arrangement at his own cost.</b>
A	Making the water available at single point		Yes	At contractor's own cost.
B	Further distribution as per the requirement of work including supply of materials and execution		Yes	At contractor's own cost.
<b>02.04</b>	<b>Lighting</b>			

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter-II Facilities in the Scope of Bidder/BHEL**

<b>02.00 Facilities in the Scope of Bidder/BHEL</b>				
<b>Sl. No</b>	<b>Description</b>	<b>Scope</b>		<b>Remarks</b>
		<b>BHEL</b>	<b>Bidder</b>	
A	For construction work (supply of all the necessary materials) 1. At office/storage area 2. At the preassembly area At the construction site /area		Yes	At contractor's own cost
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	At contractor's own cost
C	Providing the necessary consumables like bulbs, switches, etc. during the course of project work		Yes	At contractor's own cost
D	Lighting for the living purposes of the bidder at the colony / quarters		Yes	At contractor's own cost
<b>02.05</b>	<b>Communication facilities for site operations of the bidder</b>			
A	Téléphone, fax, internet, intranet, e-mail etc.		Yes	At contractor's own cost
<b>02.06</b>	Demobilization of all the above facilities		Yes	At contractor's own cost
<b>02.07</b>	<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		<b>Yes</b>	
B	Drawings for construction methods	Yes	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 marked in drawing & handover to BHEL on completion of work.
D	Preparation of site erection schedules and other input requirements as per Form-14.	Yes	Yes	In consultation with BHEL

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter-II Facilities in the Scope of Bidder/BHEL**

<b>02.00 Facilities in the Scope of Bidder/BHEL</b>				
<b>Sl. No</b>	<b>Description</b>	<b>Scope</b>		<b>Remarks</b>
		<b>BHEL</b>	<b>Bidder</b>	
E	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
F	Weekly construction / erection schedules based on Sl. No. E		Yes	In consultation with BHEL
G	Daily work plan based on Sl. No. F		Yes	In consultation with BHEL
H	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	
I	Preparation of preassembly bay		Yes	
J	Laying of racks for gantry crane if provided by BHEL or brought by the contractor /bidder himself		Yes	

<b>02.08</b>	<b>Land/Open Space:</b>
<b>02.08.01</b>	Availability of land within plant boundary is very 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 Customer. 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 part of his scope of work.
<b>02.09</b>	<b>Labour and Staff Colony:</b>
	<b>Following are in the Bidder's scope of work for labour &amp; staff colony:</b>
<b>02.09.01</b>	BHEL shall not provide any space or residential accommodation to the contractor for his staff or labour and the contractor has to make his own arrangements at his cost. Labour colony is to be developed by bidder for all the labourers required to be deployed for the works. Bidder has to identify the land for labour colony at their cost and no land will be given by BHEL for labour colony purpose. The contractor to develop/ construct labour colony/ hutment fulfilling the minimum requirements as specified in the "HSE Plan for Site Operations by Subcontractors" enclosed along with this tender as well as meeting the statutory norms.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II Facilities in the Scope of Bidder/BHEL

	Ownership of the labour hutment shall be of the contractor and 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>02.09.02</b>	Land for labor colony shall be arranged by Contractor at their own cost as per availability outside project area. Necessary levelling/ dressing of land shall be done by the contractor. All arrangement for electricity and drinking/service water to be arranged by the contractor within his quoted price. The contractor shall provide adequate water arrangement for drinking/ washing/ bathing with required toilets, drainage system, and electrification etc. in labour colony at his own cost.
<b>02.09.03</b>	Development of Bidder's temporary staff colony and labour colony having adequate no. of rest rooms along with toilets & fencing etc.
<b>02.09.04</b>	All Civil and Structural work associated with drinking and service water for Bidder's labour and other personnel at the work site/colony/offices including pump houses, pipes, overhead tank, tube wells etc.
<b>02.09.05</b>	Providing and maintaining facilities for safety, welfare, drinking water and sanitation, hygiene, biennial health check-up etc. for construction workers at their workplaces as well as at labour & staff colonies.
<b>02.09.06</b>	Development and maintenance of above facilities for construction workers deployed by the Contractor shall solely rest with the Contractor.
<b>02.09.07</b>	Contractor shall ensure maintenance of workmen/labour colony in line with BHEL' standard Guidelines <b>(As per Annexure A- Standard Guidelines for Worker's Accommodation / Establishments at BHEL-Project Sites)</b> .
<b>02.10</b>	Contractor shall maintain one centralized store cum bar bending yard at his own cost. Hard surfacing of this yard and all-around drains shall be carried out by the contractor at his own cost within the quoted rate. The construction of cement storage sheds for unloading of cement bags, stacking properly in the storage sheds shall be carried out by the contractor at his own cost within the quoted rate.
<b>02.11</b>	<p><b>Installation of necessary amenities and temporary infrastructure for construction activities at Project site locations.</b></p> <p>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:</p> <ol 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> <li>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.</li> <li>v. Labour colony should have all hygienic condition, dining hall, toilets, proper sewerage system, good drinking water arrangements.</li> <li>vi. Recreational facilities, etc.</li> </ol>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II Facilities in the Scope of Bidder/BHEL

<b>02.12</b>	<b>Construction Power:</b>
<b>02.12.01</b>	Construction power (three phase, 415V/440V) will be provided to the contractor on chargeable basis at one single point by BHEL. The contractor shall make his own arrangement for further distribution with necessary isolator/LCB etc.
<b>02.12.02</b>	In general, Construction power will be provided to the contractor on chargeable basis at one single point. However, based on request of Contractor and requirement of project, BHEL Site in charge, at his discretion, may provide construction power at additional two points, if feasible. If, BHEL provides electricity at more than one point, it will be responsibility of the contractor to provide all the support necessary for enabling BHEL for extending such provision to contractor.
<b>02.12.03</b>	<b>Contractor to note that BHEL shall complete the arrangements for Construction Power Supply after about seven months from the commencement of contract period.</b>  Till then, 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.
<b>02.12.04</b>	Further, as there are bound to be interruptions in regular power supply, power cut/load shedding as in any construction sites, 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 during the power breakdown /failure to get urgent and important work to go on without interruptions. No separate payment shall be made for any contingency arrangement made by contractor, due to delay / failure in providing electricity.
<b>02.12.05</b>	The Construction Power consumed by the contractor shall be chargeable based on prevalent rate of DISCOM (OERC guidelines). The existing rates are provided below:  Demand Charge: Rs.250/KVA/ Month Energy Charge: For Load Factor =<60% : 585.00 Paise/kVAh For Load Factor >60% : 475.00 Paise/kVAh
<b>02.12.06</b>	The above rates are indicative only. This rate may vary from time to time and the prevailing rates during execution shall be applicable.
<b>02.12.07</b>	Any duty, deposit involved in getting the Electricity shall be borne by the bidder.
<b>02.12.08</b>	The contractor has to Provide necessary meter for measuring the power consumption. In case of any dispute, BHEL engineer's decision shall be final and binding on contractor. The meter used by the contractors shall be duly calibrated.
<b>02.12.09</b>	Necessary "Capacitor Banks" to improve the Power factor to a minimum of 0.9 shall be provided by the contractor at his cost. On account of the contractor's failure in maintaining the power factor as required by customer, penalty if any, levied by customer will be recovered from contractor's bills.
<b>02.12.10</b>	The contractor shall make his own arrangement for further distribution of power, taking due care of surrounding construction activities like movement of cranes & vehicles, civil work, fabrication/construction/assembly/ erection etc. and safety of personnel.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II Facilities in the Scope of Bidder/BHEL

	<p>Sometimes it may become necessary to relocate some of the installations to facilitate work by other agencies or by him.</p> <p>Distribution of supply shall be done by the contractor using underground cables. The contractor shall be responsible to provide complete LT distribution with Fuseless system including the supply of all materials like cables, necessary isolators/LCB, Switch boards, industrial receptacles/sockets, pipes, etc. observing the safety rules laid down by electrical authority of the State / BHEL / their customer with appropriate statutory requirements.</p> <p>All cables being used for construction power shall be armoured only. Buried cable shall be suitably identified by the route markers.</p>
<b>02.12.11</b>	BHEL is not responsible for any loss or damage to the contractor's equipment as a result of variations in voltage / frequency or interruptions in power supply.
<b>02.12.12</b>	Contractor has to make their own arrangements for electricity requirement for labour colony at his own cost.
<b>02.13</b>	<b>Construction water:</b>
<b>02.13.01</b>	<p>BHEL shall establish pumping system for drawing water from Bhedan river for Construction purposes after about seven months from the commencement of contract period. On establishment of the system, Contractor shall draw water from BHEL's single point source for water supply. All Necessary pumps &amp; accessories, pipes for drawing water from the given point and for further distribution shall be arranged by the contractor only at their cost.</p> <p>Till establishment of such construction water supply is made by BHEL, the contractor should make his own arrangement for alternative source of water suitable for construction purpose at their cost. No separate payment shall be applicable for this.</p>
<b>02.13.02</b>	The Contractor should make arrangements for storage of sufficient quantity of water required for work. The agency should also construct sumps (if required) of suitable size for storage of construction water as per their requirement for use for execution and construction purposes.
<b>02.13.03</b>	Contractor to satisfy himself that the water drawn by him is fit for construction/ consumption and adequately treat such water at his cost when it is not found fit for the said purposes.
<b>02.13.04</b>	In case of non-availability of water, the contractor shall make his own arrangements of water suitable for construction purpose to have uninterrupted work. No separate payment shall be made for any contingency arrangement made by contractor.
<b>02.14</b>	<b>RECORDS TO BE MAINTAINED AT SITE</b>
<b>02.14.01</b>	Record of Quantity of free/Chargeable items issued by BHEL must be maintained during contract execution. Also, reconciliation statement to be prepared at regular intervals.
<b>02.14.02</b>	<p>The below mentioned Records/ Log-books/ Registers applicable to be maintained.</p> <p style="padding-left: 40px;">i.Hindrance Register</p> <p style="padding-left: 40px;">ii.Site Order Book.</p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II Facilities in the Scope of Bidder/BHEL

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	<ul style="list-style-type: none"><li>iii. Test Check of measurements.</li><li>iv. Records of Test reports of Field tests.</li><li>v. Records of manufacture's test certificates.</li><li>vi. Records of disposal of soil/ rock generated during and after the work completion.</li><li>vii. Records of disposal of scraps generated during and after the work completion.</li><li>viii. List of T&amp;Ps and MMEs.</li></ul>
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# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - III: Scope of Work

<b>03.00</b>	<b>Scope of Works:</b>
<b>03.01</b>	<b>Intent of specification</b> The complete scope of the package for the Design, Engineering, Manufacture, Supply, Civil, Structural, Architectural works, Erection, Testing & Commissioning and handing over works for the Ash handling system and Mill reject handling system for Talabira TPP (3X800 MW), shall be on the basis of single point responsibility, completely covering all the activities and services in respect of all the equipment & works specified and covered in the scope matrix and as per the enclosed end user's NIT document no. amendments and clarifications (as in enclosures & annexures as attached along with this enquiry specification) and other enclosures & annexures as attached along with this Technical conditions of contract (TCC) except for items/ systems which are listed in exclusions list, however commercial terms and conditions shall be as per BHEL's NIT,TCC GCC documents.
<b>03.02</b>	The scope of supply & services includes System design, Basic and Detail Engineering, Sizing & Selection of Equipment, 3D modelling, Manufacturing, Procurement, Inspection & Testing, painting, Supply of Mechanical, Electrical, C&I Equipment / items, technological structures, all civil structures (steel and RCC, architectural) , Start-up spares, commissioning spares and Mandatory spares, Packing & Forwarding, Transportation to the site including customs clearance/ port clearance, Receipt at Site, Unloading, Storage, Preservation, Security, Intra-site transport & handling at site, Statutory clearances, Construction and Erection of Civil (RCC) & structural steel structures, Erection & Commissioning, supply of paint and Painting at site, System integration, Trial Run, Operation and maintenance, Training, Performance Guarantee Test and Handing Over of complete Ash Handling System and Mill reject handling system as EPC turnkey package in accordance with the scope Matrix attached in Annexure 2,2A & Annexure 3.
<b>03.03</b>	Bidder shall include the responsibility of technical coordination (including participation in Technical co-ordination, Project review meetings with BHEL/NLC/Site), finalization of drawings/ documents, submission of engineering & civil assignment drawings/ documents ,3D modelling drawings and processing of their approvals by NLC/BHEL is in their scope. Bidder shall be solely responsible for submission & approval of drawings, composite layouts, flow diagrams, Technical data sheets, QAP, Field Quality Plans, Erection manual, Commissioning procedures, O&M manuals, as built drawings after E&C of all equipment, PG test procedures, Inspection & Testing Procedures from BHEL/ NLC in time and shall plan the activities accordingly.
<b>03.04</b>	Any additional items required for the completeness and satisfactory performance of the complete Ash Handling system and Mill reject Handling system though not explicitly mentioned in Mechanical, Electrical, C&I, Civil & structural scope matrix, Electrical and C&I scope matrix, enclosed annexures etc in this specification or NLC technical specification shall also be in Bidder's scope of supply & works. BHEL will not supply any item (except items specifically excluded and mentioned under BHEL scope of supply in this specification) for making the system complete. It is the total responsibility of the bidder to make the system complete in all aspect before handing over.
<b>03.05</b>	<b>BROAD SYSTEM DESCRIPTION</b> The ash handling system comprises majorly Bottom ash handling system and Fly ash handling system with all sub-systems and auxiliary systems. Bidder to refer NLC tender specification and clarifications/ corrigendum/Amendment for complete details.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - III: Scope of Work

	However, Bidder to follow the scope matrix as attached in Annexure-2,2A. For Mill reject Handling system refer Annexure- 15,5A.
<b>03.06</b>	<b>DESIGN BASIS/INPUTS</b> <ol style="list-style-type: none"><li>1) Refer NLC NIT specifications for ash handling system.</li><li>2) Refer <b>Annexure-09</b> for Ash collection data.</li><li>3) The design memorandum and flow diagram are finalised at <b>Annexure-10</b>. Bidder to follow both the approved flow diagram and NLC flow diagram (<b>Annexure-5</b>). In case of any contradiction, the best of the two/worst case scenario to be considered and BHEL's decision shall be final &amp; binding and there shall not be any cost implication to BHEL in this regard. No reference shall be drawn by bidder from these drawings for any commercial implication at any time of the contract.</li><li><b>4) Common Water System</b><p>The water requirement for the complete Ash handling system package shall be met through various water pumps specified in the NLC single line flow diagrams and NLC specification. (<b>Annexure 5</b>)</p></li><li><b>5) Pipe racks and cable racks</b><p>Bidder to note that some of the pipes and cable trays of BHEL/NLC shall be routed in the pipe rack/cable rack to be provided by the bidder. The customer pipes are mentioned in the NLC specification. The BHEL pipe /cable trays will be provided during detailed engineering.</p></li></ol>
<b>03.07</b>	<b>NOTES TO BIDDERS</b> <p>Apart from the above, Bidder shall include the following also in his scope.</p> <ol style="list-style-type: none"><li>1. The design, manufacture, inspection and testing of the equipment shall comply with all the currently applicable statutory regulations and safety codes in the locality where the equipment is to be installed and shall also confirm 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 &amp; ambiguity in the standard to be followed the decision of the BHEL/customer shall be final and binding.</li><li>2. If the system is not working properly or the system has some inherent design flaws, in such a case, the successful bidder will be liable to correct the system without any price implication to BHEL and BHEL's decision will be final and binding in such cases. Also, the system has to be designed as per best industry practice while taking worst case scenario into account if nothing is mentioned in the technical specifications furnished by BHEL/NLC.</li><li>3. Supply of all consumables like lubricants, oil, grease etc. for initial flushing at site, first fill during commissioning and replenishment/replacement of the same till handing over of the plant to NLC is in the scope of bidder. Any oil, if lying in the equipment shall be drained at site and shall be refilled with new oil during commissioning. Special tools and tackles (as required), commissioning/start up spares (List shall be furnished by bidder) required</li></ol>

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	<p>for the equipment/ system supplied by the bidder shall be in the scope of bidder.</p> <ol style="list-style-type: none"><li>4. The layout of Ash handling system facilities is furnished in the Plot plan (Annexure-4). Any changes in the layout during detail engineering is subject to technical feasibility and mutual agreement with all concerned parties. Bidder shall understand limitations/ constraints for deciding the final layout for ash handling system which shall be subjected to approval of NLC/BHEL.</li><li>5. Approach road, Chipping and levelling/ grading near erection location is in Bidder scope.</li><li>6. Cleaning of any debris produced by the bidder during E&amp;C shall be done immediately at each front. As required, minimum two times cleaning of all debris and ash of Bottom Ash Hopper and ECO/APH/DUCT/Eco Outlet/ESP Hoppers at the time of Boiler light up, coal synchronization and up to handing over to NLC/BHEL is in bidder scope, whether AHP system is ready or not ready.</li><li>7. Bidder shall strictly follow and adhere to the guidelines laid down in the enclosed BHEL's health, safety and Environment manual (HSE).</li><li>8. Quality assurance and inspection of equipment shall be as per NLC specification. However, modalities of inspection (Stage, Final, In-process) shall be finalized during detail engineering after submission of quality assurance plan (QAP).</li><li>9. Quality of effluent outgoing from the plant shall conform to latest norms of Environment Pollution Control.</li><li>10. For Technical discussions regarding any erection issues related to erection drawings/supplies, any modification at site due to site conditions, bidder shall depute concerned engineers to site/customer place to resolve the issue as well as submission of related revised drawings. As built drawings shall be submitted by the successful bidder after visiting the site from time to time by their engineering personnel to note the modifications and incorporate in drawings.</li><li>11. Bidder shall co-ordinate &amp; attend meetings with Customer's consultant, customer and also with other units of BHEL for finalizing the AHP Layout, drawing approval and for any other input information as required.</li><li>12. Bidder to extend all help and documentary support for compliance and addressing any statutory issues raised by BHEL/NLC which pertains to the area / work under bidder's scope.</li><li>13. Bidder to refer the NLC specification Vol II-A/Section-XIV for finalisation of sub vendor and the list of approved sub-vendors.</li><li>14. Bidder shall consider training module to end-user for Ash handling system package as per the NLC NIT specification.</li><li>15. Bidder shall consider safety induction and training as per the NLC NIT specification.</li><li>16. Bidder shall furnish the L-2 project schedule indicating various milestones and constraints (preferably in MS PROJECT / PRIMAVERA), along with the bid. The successful bidder shall furnish the L-3 project schedule in line with the L-2 schedule after award of the contract.</li></ol>
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	<p>17. Project monitoring &amp; execution team dedicated for this project including the organization chart till completion of the project shall be furnished by successful bidder.</p> <p>18. Monthly progress report shall be submitted on 5th of every month by the successful bidder.</p>
<b>03.08</b>	<b>TECHNICAL SPECIFICATION &amp; SCOPE OF WORK- MECHANICAL</b>  The scope of work includes supply and E&C of complete Ash handling system with all its auxiliary systems including lean slurry and HCSD slurry disposal, hoists & cranes, AC & Ventilations etc and complete MRHS system. Refer Annexure 2 and 2A.
<b>03.09</b>	<b>TECHNICAL SPECIFICATION &amp; SCOPE OF WORK - ELECTRICAL &amp; C&amp;I</b>  Refer <b>Annexure-3 ,2A</b> For Terminal Points, Exclusions and detailed scope of Electrical & C&I Scope of bidder.
<b>03.10</b>	<b>TECHNICAL SPECIFICATION &amp; SCOPE OF WORK - CIVIL AND STRUCTURAL:</b>
<b>03.10.01</b>	The scope of civil, structural and architectural works comprises all necessary investigations, survey, site clearance, dismantling of existing structures/substructures/facilities, micro site levelling, preparation of Civil & Structural design & drawings (Including 3D modelling in Tekla) and their approval, construction, fabrication, erection and providing all labour, materials, consumables, equipment, T&P, temporary works, temporary storage sheds, temporary colony for labour and staff, temporary site offices, constructional plants, fuel supply, transportation and all incidental items not shown or specified but reasonably implied or necessary for the successful completion and operation of Ash Handling System and Mill reject handling system of the Thermal Power Plant to be constructed for 3x800 MW units., all in strict accordance with the specifications including revisions and amendments thereto as may be required during the execution of work.
<b>03.10.02</b>	Construction of all civil, structural and architectural works includes 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 blasting/ mechanical means, de-watering, backfilling around completed structures, plinth filling, disposal of surplus earth/rock/excavated material/dismantled material, concreting including reinforcement and form work/ slip form, masonry work including staging, 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 of all structures, pre assembly of fabricated structures, transportation of fabricated structures and erection of steel structures and miscellaneous steel works, 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

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	before handing over and any other item of work required for completion of all systems under the scope of work complete as per Technical Specifications & amendments issued by end customer.
<b>03.10.03</b>	The scope shall also include setting up by the Bidder a complete testing laboratory in the field to carry out all relevant tests for structural steel, reinforcement steel & reinforced concrete (RCC) works.
<b>03.10.04</b>	The Bidder shall make the layout and levels of all structures from the general grid of the plot and the nearest GSI benchmark or other acceptable benchmark of Government department. The Bidder shall be solely responsible for the correctness of the layout and levels and shall also provide necessary instruments, materials, access to works, etc., to the Engineer for general checking of the correctness of the civil works.
<b>03.10.05</b>	All the quality standards, tolerances, welding standards and other technical requirements shall be strictly adhered to. The Bidder shall fully apprise himself of the prevailing conditions at the proposed site, climatic conditions including monsoon pattern, soil conditions, local conditions and complete specification of Ash handling plant furnished by end customer M/s NLC shall be followed back to back basis without any deviation.
<b>03.10.06</b>	All construction materials including cement, reinforcement steel, coarse & fine aggregate, structural steel etc., shall be arranged by the Bidder. Approach road and drains from main plant road to all Ash Handling Structures to be constructed by the bidder. All temporary access road required during construction shall be provided by the bidder.
<b>03.10.07</b>	The work shall be carried out according to the design/drawings to be developed by the Bidder and approved by the end customer. For all buildings, facilities, systems, structures, etc., necessary layout and details are to be developed by the Bidder keeping in view the statutory and functional requirements and providing enough space and access for operation, use and maintenance. The Bidder's work shall cover the complete requirements as per IS codes, fire safety norms, requirements of various statutory bodies, best prevailing practices and to the complete satisfaction of the BHEL and end customer. The bidder shall arrange all the statutory/railway clearance and charges of the same shall also be borne by the bidder. Approval of drawings prepared by the bidder shall not relieve the bidder of his responsibility regarding the adequacy of design and correctness of the drawing.
<b>03.10.08</b>	Civil & Structural design and detail engineering of all facilities is in the scope of the bidder. Scope matrix may please be referred for Civil & structural design. If the design is to be outsourced due to lack of suitable resources, bidder has to take prior approval from BHEL for design outsourcing. The design agency shall have prior experience in designs of power /material /steel plant structures.
<b>03.10.09</b>	In case of any conflict between stipulations in various portions of the specification, most stringent stipulation would be applicable for implementation by the Bidder without any extra cost to the Employer.

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<b>03.11</b>	<b>PAINTS:</b>  The Bidder's scope of work includes supply of paints and painting of all equipment/items and structures as per stipulated requirements in the specification and NLC's standard color-coding scheme.
<b>03.12</b>	<b>PRE-COMMISSIONING AND COMMISSIONING ACTIVITIES</b>  The Bidder's scope shall include all pre-commissioning and commissioning activities, materials and services as detailed in the other portion of NLC NIT specifications including supply of all consumables, temporary equipment & piping (if any), instruments as per scope, labor, skilled manpower's etc.
<b>03.13</b>	<b>GUARANTEE TESTS</b>  The guarantee tests for various equipment and systems shall be carried out as specified under Section-9, Vol-IB of End User's specifications. All special equipment, tools and tackles, instruments, measuring devices required for the successful conductance of Guarantee Tests shall be provided by the Bidder, free of cost. All costs associated with the tests shall be included in bid price.  All statutory clearances necessary for guarantee tests shall be obtained by the bidder from respective authorities without any additional cost to BHEL.
<b>03.14</b>	<b>SPECIAL TOOLS &amp; TACKLES AND TEST/MEASURING EQUIPMENT</b>  One set of all special tools and tackles including testing, calibrating and measuring instruments required for erection, assembly, disassembly and maintenance & testing of all equipment/systems for the package shall be supplied by the Bidder. The Bidder shall not use these special tools, tackles and testing/measuring equipment for erection/commissioning purposes and shall be new and in an unused condition, when they are handed over to the Employer. Bidder to refer NLC Specification, Vol -II-A/Section IX for the list of tools and tackles to be supplied to NLC.
<b>03.15</b>	<b>3D MODELLING OF THE SYSTEM</b>  <b>All the facilities pertaining to Ash handling plant and Mill Reject Handling System including pipe racks and cable racks shall be made in 3D modelling system</b> as detailed in NLC specification. BHEL's pipes and cable trays that are supported in bidder's pipe rack/cable rack, also needs to be modelled.
<b>03.16</b>	<b>SPARES:</b>  Bidder's scope shall include supply and handing over of Mandatory Spares of all equipment and supply of start-up & Commissioning spares. Special and separate packing & box-marking for items meant for mandatory spares including tools and tackles which are to be handed over directly to customer, is required. Mandatory spares shall be

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	dispatched separately and not along with the main equipment, based on actual status of the project and clearance from site.
<b>03.17</b>	<b>Mandatory Spares</b> The list of Mandatory spares is available in Annexure-6 ( <b>Section B, Vol. II- Section-IX Mandatory Spares-BOP</b> ). The following points also to be noted by bidder <ul style="list-style-type: none"><li>a) In case spares indicated in the list are not applicable to the particular design offered by the bidder, the bidder should offer spares applicable to offered design with quantities generally in line with approach followed in the above list.</li><li>b) The description of various items is only indicative and shall be supplied according to approved drawings/ Data sheets.</li><li>c) The spares for the equipment's shall pertain to the specific equipment's only. In case, if found at any stage of the project, that the spares supplied by the bidders are not fitting or not matching, the same shall be supplied again by the bidder without any cost implication to BHEL.</li><li>d) Work instructions for storage &amp; handing over of mandatory spares to NLC is as under: -<ul style="list-style-type: none"><li>i) 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>ii) All boxes/containers are to be distinctly marked in red color with boldly written "S" mark on each face of the containers</li><li>iii) 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 customer.</li><li>iv) 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>v) Storage, safety of boxes/items and maintaining requisite inventory records will be the responsibility of bidder's representative at site.</li><li>vi) Bidders shall make periodic checks for safety of boxes/items, as the case may be.</li><li>vii) Handing over of mandatory spares, getting MRC from customer and physical reconciliation with customer shall be the joint responsibility of the bidder's site representative and BHEL's site representative.</li></ul></li></ul>
<b>03.18</b>	<b>Commissioning spares</b>  Start-up and commissioning spares as required for the completion and commissioning of AHP & MRHS are to be dispatched to the site prior to the requirement of commissioning of equipment/system(s).
<b>03.19</b>	<b>ERECTION &amp; COMMISSIONING, OPERATION &amp; MAINTENANCE</b>  Bidder to refer respective chapters for erection and commissioning in the NIT specification. Bidder shall strictly adhere to the same and follow the erection & commissioning terms and conditions

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<b>03.20</b>	<p><b>Storage and Security</b></p> <p>Construction of open storage yard and closed storage shed for the storage of materials (Including free supply items of BHEL) shall be in the bidder's scope:</p> <p><b>a) Closed storage shed:</b></p> <p>Construction of temporary closed covered storage shed for storage &amp; preservation of all supplied material (of Mechanical and electrical) for this package with brick wall construction, concrete flooring, sloped roof, rolling shutters, RCC column with max. span of 6 meters, RCC beams at every 3m height from finished floor level, brick infill up to total height of shed. (Including inside and peripheral illumination of Closed storage shed)</p> <p style="text-align: center;">OR</p> <p>Construction of temporary closed covered storage shed for storage &amp; preservation of all supplied material (of Mechanical and electrical) for this package in PEB closed storage shed or closed shed with RCC column foundation, plinth beams, concrete flooring, steel structure with roof truss and covered with color coated sheets in all sides, rolling shutters. Windows and access doors shall be provided and it shall be in the scope of bidder. (Including inside and peripheral illumination of Closed storage shed)</p> <p><b>b) Open storage yard:</b></p> <p>Bidder shall make ready open storage yard suitably to obtain storage clearance from the customer. Bidder shall also consider fencing/illumination of open storage and site fabrication area as and when allocated at site.</p>
<b>03.21</b>	<p><b>Site Activities</b></p> <p>All site activities like unloading, receipt, storage, security &amp; handling material, civil/structural works in the bidder's scope and BHEL's free issue items in this package, erection and commissioning, trial run &amp; PG test, handing over the complete system to customer shall be in bidder's scope.</p> <ol style="list-style-type: none"><li>1. Bidder shall be responsible to ensure correct implementation of their design of civil and structural works at site and erection of all electrical and Mechanical items.</li><li>2. Storage space shall be allotted by BHEL/Customer either inside/outside the plant premises based on availability of space. Further levelling/ grading shall be done by bidder for proper storage of material.</li><li>3. Vendor to ensure sufficient manpower throughout the project for erection and commissioning activities on all equipment's, systems etc.</li><li>4. Erection of all items shall be in line with the "Erection &amp; Commissioning manual"</li><li>5. Cost of repair/replacement of damaged equipment /parts, if any, including material &amp; maintenance works shall be borne by successful bidder.</li></ol>

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	<ol style="list-style-type: none"><li>6. Presence of foreign materials and blockages of ash flow path are bound to happen during initial operation and after restarting the boiler. Removal of such blockages, clearing of ash and cleaning of debris/area etc... are in the scope of bidder.</li><li>7. Making opening in the ESP hoppers or other areas for mounting of Ash handling items like fluidising pad etc... are in the scope of bidder.</li><li>8. The fabrication yard, the open yard and closed yard may be relocated as per the project requirements. The vendor must ensure appropriate lifting arrangements and manpower for shifting the items to the desired location, without any cost implication to BHEL.</li><li>9. All the T&amp;P [Tool and plant] required for the execution of the package till handing over of AHP &amp; MRHS package to end customer shall be in the scope of bidder.</li><li>10. Bidder shall make their own arrangements well in advance for erection equipment such as crane, hydra, Farhana, trolley, truck, trailer, all tools &amp; tackles, via chain pulley block, wire ropes, grinding machine, welding machines (including single phase portable welding machine), cutting sets, coupler, pulling &amp; lifting tools such as slings, D-shackles, winches, etc. including precision measuring instruments that are required for E&amp;C purposes.</li><li>11. It shall be the sole responsibility of bidder to do measurement, prepare and maintain all protocols at all stages during E&amp;C (Foundation handing over, erection, commissioning etc..). Getting approval on protocols from BHEL/NLC is bidder's responsibility.</li></ol>
<b>03.22</b>	<p><b>Operation and Maintenance:</b></p> <p>The operation and Maintenance of this Ash Handling &amp; MRHS EPC package including all BHEL supplied Equipment's (if any) for this AHP package till hand over of the Ash Handling System to NLC/BHEL shall be in bidder scope. Bidder to ensure deputation of sufficient manpower for operation of the plants in shifts as per the site requirement. Bidder to note that all consumables/tool 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> <ol style="list-style-type: none"><li>1. Bidder shall record complete AHP drives operations data like time of start / stop time of various drives of AHP, MW generation &amp; ash evacuation data for each hopper, number of evacuation cycles completed in each pass / field, etc. Bidder shall prove the PG test parameters during O&amp;M and ensure that system is streamlined so that the designed Operating Hours is achieved, which is needed for handing over of the system.</li><li>2. Bidder shall maintain WORK PERMIT ISSUE / CANCELLATION Slips for all types of Electrical Isolation &amp; Service resuming. Bidder shall maintain, Safety Log book for Clearance with signatures of all concerned engineers from Site operations, Mechanical, Electrical and C&amp;I department of Bidder &amp; BHEL for all types of drive /system Operations from DCS. Standard SAFE ELECTRICAL OPERATION procedures to be followed strictly by bidder.</li></ol> <p>The Contractor shall provide sufficient staff for O &amp; M guidance until the completion of warranty period.</p>
<b>03.23</b>	<p><b>Additional Requirements</b></p> <p>Before submitting the bid, the <b><u>Bidder should inspect and examine the project site and its surroundings</u></b> and should satisfy themselves as to the nature of the ground and</p>

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	<p>subsoil, the quantities and nature of work, materials necessary for completion of the work and their availability, means of access to site and in general shall himself obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect his offer. No consequent extra claims on any misunderstanding or otherwise shall be allowed by BHEL under any circumstances post award of the contract. During the visit, bidder shall ensure the feasibility of execution of AHP as per the plot plan furnished with NIT and later on, no reference shall be drawn from the plot plan drawing in case of any hindrance and feasibility issues of the layout.</p> <p>Bidder shall take all necessary precautions to protect all the existing equipment, structures, facilities and buildings etc. from the damage. In case any damage occurs due to the activities of the Bidder on account of negligence, ignorance, accidental or any other reason whatsoever, the damage shall be immediately rectified by the Bidder at his own cost to the satisfaction of NLC/BHEL. The Bidder shall also take all necessary safety measures during erection/ commissioning activities, at his own cost, to avoid any harm or injury to his/other's workers and staff from the equipment and facilities of the power plant.</p>
03.24	<b>Tool and Plants:</b> All the T & P required for the execution of the package till handing over of AHP & MRHS to end customer shall be in the scope of Bidder.
03.25	Achieving the PG parameters for complete AHP system as a whole, during PG test conducted for Ash handling system shall be the responsibility of the bidder Meeting any shortfall in PG parameters of the equipment/system shall be the responsibility of bidder.
03.26	<b>Bidders are encouraged to raise all ambiguities, conflict in the standard &amp; specification and/or interpretation of clauses, if any, in this enquiry spec. and its enclosures during pre-bid stage itself, failing which it shall be understood that bidder has no issue, and at later date, successful bidder shall have no right to take any technical and commercial advantage out of any ambiguity, conflict in the standard &amp; specification and/or interpretation of clauses. In this regard, the decision of BHEL shall be final and binding and any change due to this shall have no price implication on BHEL and shall have to be absorbed by successful bidder.</b>
03.27	It is not the intent to specify completely herein, all aspects of design and construction of AHP & MRH system. 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 end user/ end user's consultant/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.
03.28	Supply and E&C of any other associated equipment/items/Structures/Buildings not specifically mentioned here in this specification but required for successful completion, installation, and operation of the AHP & MRH system shall be deemed to have been included in bidder's scope of work and bidder to quote accordingly.
03.29	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 AHP system to the satisfaction of end

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	user/BHEL.
<b>03.30</b>	Bidders to note that no deviation shall be taken from the technical specifications, customer documents and related amendments and annexures which form the part of the tender. Bidder to note that any specific technical deviation / exclusions which are a deviation / non-compliance to BHEL NIT specification shall not be considered during technical bid evaluation and same shall be treated null and void.
<b>03.31</b>	<p><b>INSURANCE:</b> - BHEL shall arrange comprehensive insurance policy for total supply &amp; services for main equipment/ system covering 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>Inland Transit cum Storage and E&amp;C Insurance shall be in BHEL Scope. Complete project insurance is under BHEL scope. Copy of MCE policy will be provided to the successful bidder in due course of time.</p> <p>a) In case of damage/loss/theft of goods at any stage starting from “in transit” till final handing over to BHEL, the seller/ contractor will support BHEL for lodging claim with insurance company. Registering FIR with police department as applicable shall be in the scope of Seller/contractor. FIR/Insurance claims are to be lodged by the seller/ contractor within the time period as required in the insurance policy. Responsibility of completing all formalities with Police department &amp; Insurance surveyor will be with seller.</p> <p>b) In case the damage/ loss/ theft of materials is attributable to negligence/ failure in discharging the duties and obligations of the successful bidder, the expenses incurred for repair/ replacement of such components in excess of the amount realized from the underwriters, limited to Normal Excess (Deductible Franchise) shall be recovered from the successful bidder.</p> <p>c) In case the claim is not honoured by the insurance company for the lapses of seller/ contractor, the seller/ contractor to arrange for repair/replacement of such items without any cost implication to BHEL.</p> <p>d) It will be responsibility of the successful 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 successful bidder as and when available.</p> <p>e) The vendor/ contractor 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 vendor/ contractor 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.</p> <p>f) Details of insurance policy and contact details of insurance company shall be provided to the successful bidder after placement of order.</p> <p>g) It is the entire responsibility of the successful 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 successful bidder shall also insure their staff against accident/ injury with Workmen’s</p>

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	<p>compensation policy, group personal insurance, etc., as may be applicable.</p>									
h)	<p>The successful bidder shall take insurance covering for all materials (excluding plant material), tools &amp; plants, manpower, workers, etc., required to be provided &amp; deployed for the job by the bidder.</p>									
i)	<p>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 successful bidder. Regarding aforesaid insurance cover, the successful bidder shall directly deal with the insurance company for all matters regarding the insurance in his scope.</p>									
j)	<p>Successful bidder shall timely intimate dispatches/ discrepancy during contract operation, to the underwriter. The name of the underwriter and Policy No shall be intimated in due course of time.</p>									
k)	<p>Insurance as applicable for field work such as third-party liability, workmen compensation, Seller/Contractor's own Tools &amp; Plants and automobile shall be arranged by the Seller/ Contractor (and cost of such insurance shall be included in the quoted price), which shall include but not limited to the following:</p>									
1)	<p>Workmen's Compensation Insurance</p> <p>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:</p> <table><tr><td>Workmen's Compensation</td><td>:</td><td>As per Statutory Provisions</td></tr><tr><td>Employee's Liability</td><td>:</td><td>As per Statutory Provisions</td></tr></table>	Workmen's Compensation	:	As per Statutory Provisions	Employee's Liability	:	As per Statutory Provisions			
Workmen's Compensation	:	As per Statutory Provisions								
Employee's Liability	:	As per Statutory Provisions								
2)	<p>Comprehensive Automobile Insurance</p> <p>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:</p> <table><tr><td>Fatal Injury</td><td>:</td><td>Rs.100,000 each person</td></tr><tr><td></td><td>:</td><td>Rs.200,000 each occurrence</td></tr><tr><td>Property Damage</td><td>:</td><td>Rs.100, 000 each occurrence</td></tr></table>	Fatal Injury	:	Rs.100,000 each person		:	Rs.200,000 each occurrence	Property Damage	:	Rs.100, 000 each occurrence
Fatal Injury	:	Rs.100,000 each person								
	:	Rs.200,000 each occurrence								
Property Damage	:	Rs.100, 000 each occurrence								
3)	<p>Comprehensive General Liability Insurance</p> <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</p>									

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	either direct or indirect, in pursuance of the Contract.
<b>03.32</b>	<p>It is the entire responsibility of the successful 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 successful bidder shall also insure their staff against accident/ injury with Workmen's compensation policy, group personal insurance, etc., as may be applicable.</p> <p>Lodging and settlement of the claim shall be the responsibility of the successful bidder. Necessary documents, if any, required for settlement of insurance claim shall be provided by BHEL.</p>
<b>03.33</b>	Bidder to note that, for the purpose of customer conditions which requires item/component of <b>same make</b> to be used across various packages/system, Bidder shall obtain permission before procurement of such items and shall mandatorily procure the "same make" requirement from BHEL in case of BHEL manufactured items .
<b>03.34</b>	For the items, manufactured by BHEL, or for which BHEL Make is approved by customer as indicated in the attached NLC Contract documents, bidder shall take quotation from BHEL and if the rates quoted by BHEL for the items is less, the items shall be procured from BHEL keeping in view the market viability of the product.
<b>03.35</b>	Electrical load details shall be furnished within one month from date of LOA.
<b>03.36</b>	Complete detail engineering drawings, calculations, selection of components etc. shall be reviewed & subject to approval of BHEL/ end user during detail engineering.
<b>03.37</b>	For all items for which BHEL make has been approved by the Customer, the Bidder shall solicit a formal quotation from BHEL. Should the price quoted by BHEL be lower than the corresponding prevailing market price, the Bidder shall be obligated, to procure such items from BHEL, subject to the Bidder's confirmation of the market viability and suitability of the product.
<b>03.38</b>	Bidder to note that completion of engineering within the L1 schedule is a major milestone, so bidder shall put all endeavor to complete the same without linking to dispatch or front availability at site. As dispatches shall be sequential and it may so happen that actual requirement to site as per supply period, mentioned in L1 schedule is staggered/beyond the engineering completion schedule. In such event successful bidder shall not delay the ordering of BOI/ SMI on the pretext /issues of deferred supply period, shelf life of item, warranty issue etc. All care to be taken by the bidder in this regard during offer preparation. Similarly, during contract execution successful bidder shall ensure the same while ordering BOI to their sub-vendor such that there is no hindrance in drawing submission & engineering completion.
<b>03.39</b>	Bidder to seal floor openings (which are provided for chutes and electrical & C&I system) with seal plate immediately after erection of chutes and electrical & C&I items.
<b>03.40</b>	Complete Detailed Engineering Drawings, Calculations, Selection of Components etc. shall be reviewed by BHEL Engineers and end user during Detail Engineering.
<b>03.41</b>	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 ANNEXURE-16.

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03.42	Training of end user's personnel at equipment manufacturer's factory premises and O&M training at site, as per equipment manufacturer's standard training modules as per BHEL NIT & Technical conditions of contract, amendments & agreements till placement of order are included in bidder scope.
03.43	During detail engineering, successful bidder has to submit all the drawings/documents and any other documentation directly to customer portal or through BHEL based Document Management System (DMS) like 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 successful bidder after award of contract, by coordinating with BHEL IT team of respective unit. All the documentation flow should happen in Customer Portal or through BHEL document management system only.
03.44	Two (2) English language copies of all national and international codes and/or standards used in the design of the plant and equipment shall be provided by the Contractor to the Employer within two calendar months from the date of the Notification of Award. Cost of same shall be deemed included in the total cost quoted by the bidder.
03.45	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/Customer shall be final and binding.
03.46	Bidder shall strictly follow and adhere to the guidelines laid down in the enclosed BHEL's health, safety and environment manual (HSE) and PPE as per <b>ANNEXURE-14</b> .
03.47	Cleaning of any debris produced by the bidder during E&C shall be done immediately at each front. Bidder to follow 5S system on daily/weekly basis.
03.48	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 equipments/ items are not damaged due to long storage. Bidder to seal floor opening with seal plate which are provided for chutes and electrical system immediately after erection of chutes and electrical items.
03.49	Bidder shall make their own arrangements well in advance for erection equipment such as crane, hydra, Farhana, trolley, truck, trailer, all tools & tackles, via chain pulley block, wire ropes, grinding machine, welding machines (including single phase portable welding machine), 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.
03.50	Bidder shall submit weekly engineering & site progress reports in BHEL's format and depute full project team for attending all project review meetings called by BHEL/ end user's Consultant / end user without fail.
03.51	Bidder to refer the sub vendor list enclosed in Annexure-11. Other sub-vendors if proposed by bidder is subject to end user's approval and meeting the NIT clauses related to additional vendor mentioned elsewhere. Successful bidder shall get 30 days from LOA

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	<p>to submit all requisite supporting documents of sub-vendors for approval by end user/BHEL. Any sub-vendor approval not approved by end user or going beyond 30 days by any means from LOA shall not be considered for procurement by Bidder. and in such event successful bidder will go ahead with procurement from only approved sub-vendors, without any price implication to BHEL. Delay in any new vendor approval from end user shall not be considered for delay analysis.</p>
<b>03.52</b>	<p>Bidder shall furnish the L-2 project schedule indicating various milestones and constraints along with the bid within 1 month of the issue of LOA and bidder shall furnish the L-3 project schedule in-line with L-2 schedule after award of the contract within 3 months from the date of LOA.</p> <p>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. and shall be submitted by bidder within one month from the date of Letter of Award (LOA). 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>
<b>03.53</b>	<p>Bidder to ensure sufficient manpower throughout the contract for carrying out engineering and erection &amp; commissioning activities in parallel at site.</p>
<b>03.54</b>	<p>During detail engineering, bidder to strictly adhere to BHEL/ end user's Consultant / end user drawing. formats, document numbering, quality plan &amp; FQP formats.</p>
<b>03.55</b>	<p>Bidder to comply any statutory issues raised at site, which pertains to the area / work under bidder's scope.</p>
<b>03.56</b>	<p>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).</p>
<b>03.57</b>	<p>All the equipment shall be of robust construction, suitable for operation in dusty, humid and outdoor operation.</p>
<b>03.58</b>	<p>Material of construction (MOC) for all equipment/components if not mentioned in end user's/BHEL NIT spec shall be subject to BHEL/ end user's approval during detail engineering. Accordingly, bidder shall consider MOC for all equipment/component as per best engineering practice, global standard and global references.</p>
<b>03.59</b>	<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></ul>

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	Any other activity required for successful E&C at site
03.60	<p>Bidder shall necessarily comply and ensure following w.r.t <b><u>pre-commissioning and commissioning activities:</u></b></p> <ul style="list-style-type: none"><li>a) As soon as the facilities or part thereof has been completed for operation and structurally and before start-up, each item of the equipment and systems forming part of facilities shall be thoroughly cleaned by the bidder. The end user will verify &amp; approve final cleanliness.</li><li>b) Joint inspection of facilities or part thereof by bidder, BHEL &amp; end user for correctness and completeness of facilities or part thereof and acceptability for initial pre-commissioning tests, commissioning and startup at site.</li><li>c) Initiate start-up and commission the complete facilities, equipment integral with sub-systems and supporting equipment as a complete system. (all mechanical, electrical &amp; C&amp;I equipment and machine/system as a whole) in an integrated manner under his sole responsibility.</li><li>d) Perform the required adaptation, vibration testing, adjustment and hot run the equipment to demonstrate its guaranteed capacity.</li><li>e) Rectify the defects observed during commissioning under his sole responsibility without any additional cost implication to BHEL.</li><li>f) Procedures, standard Check List/Testing Schedule/ Commissioning Schedule to accomplish above works shall be submitted to the Owner for approval prior to the respective implementation.</li></ul> <p>Results of start-up tests and commissioning etc. will be recorded jointly by the bidder, BHEL and end user.</p>
03.61	<p>Bidder shall necessarily comply and ensure following w.r.t Post-Commissioning, PG testing, Reliability Run Test of the equipments /machine and preparation and submission of signed test protocols:</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 in coordination with bidder's headquarter.</li><li>f) Undertake O&amp;M Services (as described and required for the subject package).</li></ul> <p>Note:</p> <ul style="list-style-type: none"><li>1) Bidder should carry out necessary corrections, modifications/repairs to the equipment/machine/system, to the satisfaction of end user, based on their observations, if any.</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></ul>

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	<p>3) It shall be the responsibility of the Bidder to provide all the necessary support required for the Trial Operation, Commercial Operation Declaration and PG Test.</p> <p>4) Acceptance Tests shall mean such tests as prescribed in specifications and/or tests mutually agreed upon by Purchaser and Seller/ Contractor, to be performed by Seller/ Contractor during the process at vendors/ sub vendors works and after/ during the erection/ commissioning of equipment to establish its satisfactory operation as per specifications.</p> <p>5) Commissioning shall mean all activities inter alia successful/ satisfactory completion of Initial Operation and readiness of the contracted/ ordered package / plant and materials unit wise/ set wise/ lot wise/ individual sub-system etc. including associated stand by for TRIAL operation. This will include all consumables and inputs required for pre-commissioning.</p> <p>6) Trial Operation or Reliability Run shall mean continuous integrated operation of the contracted/ ordered package /plant and materials unit wise/ set wise/ lot wise/ individual sub-system etc. Under varying loads as proof of satisfactory operation for a specified period for further beneficial use in power plant/Unit. The procedure to be agreed during detailed engineering (Refer Annexure-B).</p> <p>7) Performance Guarantee Test: A test to be conducted by the vendor and witnessed by owner/ purchaser, as per procedure submitted by the vendor and approved by owner/ purchaser describing the objective of the test, detailed procedures to test the guaranteed parameters, obligations as per the order/ contract, results presentation procedure and verification and acceptance criterion (Refer Annexure-B).</p> <p>8) <b>HANDING OVER</b> package wise definition in line with Annexure-B</p>
<b>03.62</b>	<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 protocols in line with FQP and end user's requirement. Also, getting the protocols signed by all concerned agencies - BHEL's Engineer and end user/ end user'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 end user on account of these protocols.</p>
<b>03.63</b>	<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/equipments</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></ul> <p>Any site modification, if it is due to mismatch between bidder's GA, detail drawings. etc.</p>
<b>03.64</b>	<p>Bidder shall take care of following points:</p> <ul style="list-style-type: none"><li>a) In general, End User's/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 Resident Manager. Accordingly, bidder to align their site staff's working</li></ul>

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	<p>hours/Holidays/weekly off at site so that there is no loss of work and delay in project milestones&amp; targets.</p> <p>b) BHEL's Resident 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.</p> <p>c) While leaving the site, bidder's staff shall inform &amp; take written permission from BHEL's resident manager as well.</p> <p>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 Resident Manager.</p>
<b>03.65</b>	<p>Bidder shall necessarily comply and ensure following w.r.t <b>Storage &amp; Preservation</b> for main supply material &amp; mandatory spares at site:</p> <p>a) Prepare and submit the "Dispatch &amp; Receipt Reconciliation Report".</p> <p>b) Make periodic condition checks for the safety of boxes/items during storage of main material, spares etc.</p> <p>c) Maintain requisite inventory records.</p> <p>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.</p> <p>e) Monthly inspection report to be submitted by successful bidder to BHEL site-in charge / Resident 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 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. No insurance claim will be entertained.</p> <p>f) Bidder to refer GCC document issued by BHEL.</p>
<b>03.66</b>	<p>On completion of erection of any major items along with its auxiliaries, the same shall be thoroughly inspected by the Contractor together with BHEL/ end user's Engineers for correctness, completeness and acceptability for Pre-Commissioning Tests. Though the end user's Engineers associate themselves with such inspection, the responsibility for declaration for correctness, completeness and acceptability shall rest with the Contractor 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 Contractor considering relevant Indian/International Manufacturer's standards as applicable and finalized by the end user sufficiently in advance through mutual discussions. On conclusion of satisfactory pre-commissioning tests &amp; commissioning of each equipment/ system, the trial operation shall start consistent with parameters of the technical specifications.</p>
<b>03.67</b>	-Void-
<b>03.68</b>	-Void-
<b>03.69</b>	-Void-

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03.70	<p>On completion of erection of any major items along with its auxiliaries, the same shall be thoroughly inspected by the bidder together with BHEL/ end user's Engineers for correctness, completeness and acceptability for Pre-Commissioning Tests. Though the end user'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 finalized by the end user 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.</p>
03.71	-Void-
03.72	<b>ROYALTY/ SEIGNIORAGE CHARGES</b>
03.72.01	<p><b>ROYALTY/ SEIGNIORAGE CHARGES FOR EXCAVATION INSIDE PROJECT PREMISES AND FOR EXCAVATION OF OVERBURDEN EARTH FROM TALABIRA MINES</b></p> <ol style="list-style-type: none"><li>The contract price shall be excluding Royalty for excavation inside Project premises, if any and for excavation of overburden earth from Talabira mines. The Bidder need not quote for the same in his price.</li><li>Royalty/ seigniorage charges (if any) for excavation inside project premises and for excavation of overburden earth from Talabira mines, if it becomes applicable, as per Govt. of Odisha Notification shall be reimbursable to the bidder by BHEL for the quantum of earth work done on submission of necessary documentary evidence as proof of payments/ challans as required by BHEL for reimbursement by the contractor for making such payments as per statutory provisions and this reimbursement shall be over and above the contract price.</li></ol> <p>If there is a demand by statutory bodies at a later date from the contractor for payment of royalty for excavation inside project premises and for excavation of overburden earth from Talabira mines, the same will be reimbursed to the contractor at actual against submission of documentary evidence and any penalty levied by the statutory bodies in this regard will be to contractor's account.</p>
03.72.02	<p><b>ROYALTY FOR CONSTRUCTION MATERIALS</b></p> <ol style="list-style-type: none"><li>The Bid Price shall be inclusive of any Royalties or Seigniorage Fee or Cess or other charges payable on the quarried or mined metal, minerals, or minor minerals, as the case may be, at the rate(s) prevailing as on due date of Bid Submission.</li><li>The contract price shall be including all applicable Royalty for Construction materials as per the rates in clause no. 03.72.02 i and the Bidder to quote their price accordingly. The Royalty amount will not be reimbursed by BHEL.</li><li>In the event of there being a statutory increase in the rates of royalty charges/ fresh levy of royalty on materials, the increase/ fresh levy shall be reimbursed to the Contractor upon submission of original challan of having made the payments at revised rates and necessary proof of payments as required by M/s NLCIL for reimbursement and realization of reimbursement from NLCIL to BHEL.</li><li>In the event of there being a decrease in such rates, the decrease shall be recovered from the Contractor.</li></ol>

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	<p>v. The increase or decrease in Royalty shall be w.r.t the rate as per enclosed notification as referred in Clause no. 03.72.02 i above.</p> <p>vi. The total reimbursement of increase or decrease in royalty charges or new levies (positive or negative) as specified above, to be paid or recovered, shall however be calculated on the quantity of materials actually considered while making the royalty payments to the concerned authorities, or the theoretical consumption of these materials (calculated on the basis of the volume of concrete or fill accepted for payment), whichever is less, and on the basis of documentary evidence of Govt. Notification.</p> <p>vii. However, the Contractor will settle claims, if any, on account of over charge by the State Authorities.</p> <p>viii. If there is a demand by statutory bodies at a later date from BHEL/ contractor for payment of royalty for construction materials, the same will be paid by contractor or recovered from Contractor and paid by BHEL. BHEL's decision regarding modality of payment for the demand is with BHEL &amp; binding on the Contractor. Any penalty levied by the statutory bodies in this regard or any other reason on account of royalty/ seigniorage fee for Construction materials will be to contractor's account.</p> <p>ix. The component of Royalties or Seigniorage Fee or Cess or other charges, if applicable in a running account bill, shall only be released by the Purchaser to the Contractor on submission of the following documents in original</p> <p style="padding-left: 40px;">A) In case the Contractor is the primary license holder of the quarry / mines:</p> <p style="padding-left: 80px;">i) Vehicle wise challan / transit permit and proof of payment of royalty, and</p> <p style="padding-left: 80px;">ii) Any other document required as per the relevant Acts/Rules of the concerned state.</p> <p style="padding-left: 40px;">B) In case the Contractor is the purchaser of soil/earth, sand, stone/aggregates, metals, minerals or minor minerals:</p> <p style="padding-left: 80px;">i) Purchase voucher and vehicle wise challan / transit permit and proof of payment of royalty, and</p> <p style="padding-left: 80px;">ii) Any other document required as per the relevant Acts/Rules of the concerned state.</p> <p>x. In case the Contractor fails to provide the required proof of royalty payment with the RA bill then an amount based on the prevailing rates of the royalty shall be deducted from the respective RA bill, which shall be refunded to the Contractor on submission of proof of royalty payment. However, if the Contractor fails to provide the proof of royalty payment within a period of 60 days from the date of RA bill, BHEL shall issue a notice to the Contractor giving 30 days' time for submission of the proof of royalty payment. In case of non-submission of the proof of payment of royalty by the Contractor, the amount so deducted shall be deposited by BHEL to the concerned authority.</p> <p>In the absence of production of challan, the actual prevailing rate for royalty/ seigniorage fee as per the Odisha Government Gazette Notification shall be withheld from RA bill/ final bill and on production of challan, payment of relevant portion will be released.</p>
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03.73	<p><b><u>GENERAL NOTES TO BIDDERS:</u></b></p> <ol style="list-style-type: none"><li>1. The bid shall be complete in all respects and shall necessarily contain but not limited to Technical description, Technical data sheets of equipment and systems, Schematic diagrams, Guarantee declaration schedules.</li><li>2. All Bidders to submit their credentials and formats attached in Technical requirements along with offer for submission to NLC for vendor approval.</li><li>3. The NLC Technical specification, General Technical Specifications/ Requirements, Amendments and BHEL GCC, SCC, HSE given with this specification, which shall be read with this technical specification and shall form part of the tender.</li><li>4. BHEL reserves the right to demand/seek any additional information and clarification from the Bidder after submission of his bid for examination and evaluation of bid. Bidder shall furnish the same without any pre-conditions.</li><li>5. In case of any ambiguity, conflict in the standard &amp; specification &amp;/or interpretation of clauses in this enquiry specifications and its enclosures the decision of BHEL shall be final and binding and any change due to this shall have no price implication on BHEL and shall have to be absorbed by successful bidder.</li><li>6. Clarifications, if any shall be sought, before submission of the bid. Bidders shall raise all ambiguities, conflict in the standard &amp; specification and/or interpretation of clauses, if any, in this enquiry spec. and its enclosures during pre-bid stage itself, failing which it shall be understood that bidder has no issue and at later date successful bidder shall have no right to take any technical and commercial advantage out of any ambiguity, conflict in the standard &amp; specification and/or interpretation of clauses and the decision of BHEL shall be final and binding and any change due to this shall have no price implication on BHEL and shall have to be absorbed by successful bidder.</li><li>7. Bidder to note that <b>No deviation is accepted in this tender.</b></li><li>8. 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>9. All consumables required for the Execution of work are included in the scope of the contractor. All material handling equipments like crane, batching plant, fork lifter, tripods etc. are included in the scope of the contractor.</li><li>10. 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>11. 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>12. Insurance as applicable for field work such as third-party liability, workmen compensation, Seller/Contractor's own Tools &amp; Plants and automobile shall be arranged by the Seller/ Contractor.</li></ol>
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	<ol style="list-style-type: none"><li>13. Contractor should follow all the labour laws as applicable at the state/place of work including payment of minimum wages fixed by state government.</li><li>14. Round-the-clock security for the temporary stores, at temporary storage place &amp; for the erected equipments till handing over to customer (by a reputed agency) is in the scope of the Contractor.</li><li>15. Against any theft or loss of materials from the stores or from the erected equipments coordination with local police authorities lodging the FIR &amp; obtaining the receipt for the same. Coordination with the insurance agencies also is in the scope of the Contractor.</li><li>16. 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 5% departmental 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></ol>
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## Chapter - IV: Time Schedule

<b>04.00</b>	<p><b>TIME SCHEDULE-</b> After the issuance of the LOA for the EPC PACKAGE FOR ASH HANDLING SYSTEM &amp; Mill reject handling system the total work shall be completed within 54 months.</p> <p>“Contractual Delivery Period” for the purpose of statutory variations in taxes &amp; duties and applicability of price variation corresponding to any activity like supply / erection / civil works / commissioning etc. shall be the respective scheduled date of completion of such activity determined as per the provisions of Time Schedule, Clause 04.02 to the Contract Agreement</p> <p>For purposes other than statutory variations in taxes &amp; duties and applicability of price variation, Contractual Delivery Period shall be considered as 39 months for Unit-I, 45 months for Unit- II and 51 months for Unit- III from the date of issue of LOA .</p>																																											
<b>04.01</b>	<b>Zero date - Date of Issuance of LOA shall be considered as the Zero Date for the Package</b>																																											
<b>04.02</b>	<p><b>Schedule of important Activities:</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 8%;">Sl no</th> <th style="width: 35%;">Description</th> <th style="width: 15%;">Unit#1 from Zero date</th> <th style="width: 15%;">Unit#2 from Zero date</th> <th style="width: 17%;">Unit#3 from Zero date</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"><b>1</b></td> <td>Basic Engineering</td> <td style="text-align: center;">Within 1.5 Months</td> <td style="text-align: center;">Within 1.5 Months</td> <td style="text-align: center;">Within 1.5 Months</td> </tr> <tr> <td style="text-align: center;"><b>2</b></td> <td>Detailed Engineering</td> <td style="text-align: center;">Within 15 Months</td> <td style="text-align: center;">Within 15 Months</td> <td style="text-align: center;">Within 15 Months</td> </tr> <tr> <td style="text-align: center;"><b>3</b></td> <td>Dispatch and Completion of the Supplies</td> <td style="text-align: center;">Within 30 Months</td> <td style="text-align: center;">Within 30 Months</td> <td style="text-align: center;">Within 30 Months</td> </tr> <tr> <td style="text-align: center;"><b>4</b></td> <td>Bottom Ash Readiness</td> <td style="text-align: center;">Within 30 Months <b>(M1)</b></td> <td style="text-align: center;">Within 36 Months</td> <td style="text-align: center;">Within 42 Months</td> </tr> <tr> <td style="text-align: center;"><b>5</b></td> <td>Erection and Commissioning</td> <td style="text-align: center;">Within 37 Months <b>(M2)</b></td> <td style="text-align: center;">Within 43 Months</td> <td style="text-align: center;">Within 49 Months</td> </tr> <tr> <td style="text-align: center;"><b>6</b></td> <td><b>Completion of Trial Run</b></td> <td style="text-align: center;"><b>Within 39 Months</b></td> <td style="text-align: center;"><b>Within 45 Months</b></td> <td style="text-align: center;"><b>Within 51 Months</b></td> </tr> <tr> <td style="text-align: center;"><b>8</b></td> <td>Completion of PG Test</td> <td style="text-align: center;">Within 42 Months</td> <td style="text-align: center;">Within 48 Months</td> <td style="text-align: center;">Within 54 Months</td> </tr> </tbody> </table>				Sl no	Description	Unit#1 from Zero date	Unit#2 from Zero date	Unit#3 from Zero date	<b>1</b>	Basic Engineering	Within 1.5 Months	Within 1.5 Months	Within 1.5 Months	<b>2</b>	Detailed Engineering	Within 15 Months	Within 15 Months	Within 15 Months	<b>3</b>	Dispatch and Completion of the Supplies	Within 30 Months	Within 30 Months	Within 30 Months	<b>4</b>	Bottom Ash Readiness	Within 30 Months <b>(M1)</b>	Within 36 Months	Within 42 Months	<b>5</b>	Erection and Commissioning	Within 37 Months <b>(M2)</b>	Within 43 Months	Within 49 Months	<b>6</b>	<b>Completion of Trial Run</b>	<b>Within 39 Months</b>	<b>Within 45 Months</b>	<b>Within 51 Months</b>	<b>8</b>	Completion of PG Test	Within 42 Months	Within 48 Months	Within 54 Months
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# TECHNICAL CONDITIONS OF CONTRACT (TCC)

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<b>04.03</b>	<b>Intermediate Milestones</b>						
<b>04.03.01</b>	<p><b>Provision of Penalty in case of slippage of Intermediate Milestones:</b></p> <p>In case of slippage of Two Major Intermediate Milestones, mentioned as M1 &amp; M2 above, delay Analysis shall be carried out on achievement of each of these two Intermediate Milestones in reference to F-14.</p>						
<b>04.03.02</b>	<p>Two Major Intermediate Milestones are identified as M1 and M2.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Milestone</th> <th style="text-align: center;">Tentative Completion Schedule</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"><b>Bottom Ash Readiness of Unit #1</b></td> <td style="text-align: center;">Within 30 Months (M1)</td> </tr> <tr> <td style="text-align: center;"><b>Erection and Commissioning of Unit#1</b></td> <td style="text-align: center;">Within 37 Months (M2)</td> </tr> </tbody> </table>	Milestone	Tentative Completion Schedule	<b>Bottom Ash Readiness of Unit #1</b>	Within 30 Months (M1)	<b>Erection and Commissioning of Unit#1</b>	Within 37 Months (M2)
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<b>Erection and Commissioning of Unit#1</b>	Within 37 Months (M2)						
<b>04.03.03</b>	In case delay in achieving M1 Milestone 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.						
<b>04.03.04</b>	In case delay in achieving M2 Milestone 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.						
<b>04.03.05</b>	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.						
<b>04.03.06</b>	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.						
<b>04.03.07</b>	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.						
<b>04.03.08</b>	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.						
<b>04.03.09</b>	Contractor shall make all possible efforts to expedite the activities, in case of delay of any intermediate milestone, to maintain overall project completion schedule.						
<b>04.03.10</b>	*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.						
<b>04.04</b>	Inputs exchange between the EPC vendor and BHEL in line with the scope defined in the						

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - IV: Time Schedule

	<p>relevant annexures shall be progressive.</p> <p>Detailed L-2 Schedule and L3 Schedule, including inputs requirement dates from BHEL, shall be prepared and submitted by Vendor for approval of BHEL.</p> <p>To meet above schedule in general, and any other intermediate targets set, to meet customer/project schedule requirements, vendor shall arrange &amp; augment all necessary resources from time to time on the instructions of BHEL.</p>
<b>04.05</b>	<p>Bidder may note that there are certain structures which shall be in close vicinity to the Main BTG Area. Completion of those equipment foundations and related works shall be prioritized in consultation with BHEL Resident Manager at site, so that BHEL's works in the main plant area doesn't hamper.</p>
<b>04.06</b>	<p>-VOID-</p>
<b>04.07</b>	<p><b>GUARANTEE/WARRANTEE/ DEFECT LIABILITY PERIOD/LATENT DEFECT LIABILITY: -</b></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><b>Warranty Period-</b> It shall mean the period of 12 (twelve) months starting from the successful completion of Trial operation of respective unit (For Unit-1 - Unit 1 and common system, For Unit-2&amp;3 - respective unit) and completion of Cat I, II and III Performance Guarantees of respective BOP packages as mentioned in Section-9, Vol-IB of NLC tender specification.</p> <p>However, for the equipment / system which are not covered in Cat I, II and III Guarantees, warranty period shall start after completing the trial operation of the respective equipment/ system and successful completion of Trial operation of Unit -1.</p> <p><b>In case, the PG test is delayed for reasons not attributable to the Contractor, then the Guarantee / Warranty Period shall be deemed to be completed 18 (eighteen) months from the date of successful completion of Trial Operation of the unit.</b></p> <p>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 take action 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:</p> <ul style="list-style-type: none"><li>(a) improper operation or maintenance of the Facilities by the Owner</li><li>(b) operation of the Facilities outside specifications provided in the Contract</li><li>(c) normal wear and tear.</li></ul> <p>All guarantee/ warranty/ Defects Liability and Latent Defects Liability are by the Successful bidder.</p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - IV: Time Schedule

The Contractor's liabilities shall be limited to the replacement of any defective parts in the equipment of his own manufacture or those of his Sub-Contractors, under the normal use and arising from faulty design, materials and/or workmanship. The plant shall be operated as per the operating instructions and all records, log books and other information about the operation shall be kept. Such replaced defective parts shall be taken back by the Contractor. The Contractor shall carry out maintenance as per O&M manual up to provisional take over as per accepted practices.

- i) Owner under the supervision of the Contractor's experts shall carry out complete operation of the plant after provisional take over till completion of warranty period. However, all repairs and / or replacement other than maintenance works until the end of the warranty period shall be carried out by the Contractor to fulfill the warranty obligation. Contractor shall provide minimum technical personnel as required to provide guidance to Owner's O & M personnel till the completion of warranty period for all units.

This, however, shall not dilute the Contractor's liability during the warranty period.

- ii) In the event of any emergency where, in the judgment of the Owner or the Owner's Consultant, delay would cause serious loss or damage, repairs, replacements or adjustments may be made by the Owner or the Consultant or a third party chosen by the Owner or the Consultant without advance notice to the Contractor and the cost of such work shall be paid by the Contractor, or by the Surety. In the event of such action being taken by the Owner or the Consultant, the Contractor shall be notified promptly and he shall assist wherever possible in making the necessary corrections. This shall not dilute the Contractor's liability under the terms and conditions of the Contract.
- iii) If it becomes necessary for the Contractor to replace or renew any defective portions of the plant under this clause, the provisions of this clause shall apply to the portion of the plant so replaced or renewed until the expiry of twelve (12) months from the date of such replacement or renewal. If any defects be not remedied within a reasonable time, Customer/BHEL or the Consultant may proceed to do the work at the Contractor's risk and costs, but without prejudice to any other rights which the Customer/BHEL may have against the Contractor in respect of such defects.
- iv) The repaired or new parts shall be furnished and erected free of cost at site by the Contractor. If any repair is carried out on his behalf at the site, the Contractor shall bear the cost of such repair.
- v) The cost of any special or general overhaul rendered necessary during the guarantee period due to defects in the plant or defective work carried out by the Contractor, shall be borne by the Contractor.
- vi) The acceptance of the equipment by the Purchaser or the Consultant shall not in any way relieve the Contractor of his obligations under this clause.
- vii) In case of these defective parts which are not repairable at site but are essential for the commercial use of the equipment, the Contractor and the Customer or the Consultant shall mutually agree to a program of replacement or renewal which shall minimize interruption to the maximum extent, in the operation of the equipment.
- viii) At the end of the guarantee period, the Contractor's liability ceases except for latent defects.**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - IV: Time Schedule

**“Latent Defect”** means any repeated defect or repeated adjustment in the equipment / system which was not revealed in the normal standard inspection checklist of manufacture, erection and operation, but exhibits as observation or as deviation in operation parameters or as repetitive failure of certain components after Warranty Period and when variations in operating conditions are experienced and ultimately could be solved only by replacement or repair / correction of equipment or parts of equipment.”

**For latent defects, the liability period shall be up to three (3) years after the expiry of the guarantee period.** In respect of goods supplied by the Sub-Contractors to the Contractor where a longer guarantee (more than 12 months) is provided by such Sub-Contractors, the Purchaser shall be entitled to the benefit of such longer guarantee.

- ix) The equipment shall be operated as per the Contractor’s O&M Manual. The provisions contained in Clause 4.7 (i) shall not be applicable.
- a) If the Customer has not operated the equipment according to the generally approved industrial practices and in accordance with the conditions of operation specified and in accordance with operating manuals, if any.
- b) In case of normal wear and tear of the parts.
- x) All costs on account of these warranty obligations shall be to the account of the Contractor.

**xi) Defect Liability for Civil Works**

- a) The Contractor guarantees that within one (1) year from the date of work completion certificate or in the event more than one certificate having been issued by the Customer from the respective date so certified, the contract work shall not show any sign of defects, cracks, settlements, disfiguration, shrinkage, leakage, dampness or any other faults.
- b) The Contractor shall maintain and satisfactorily execute at his own cost all such works of repair, amendment, reconstruction, rectification, replacement and any other work to make good any faulty work during the defect liability period.
- c) The Contractor shall, if required by the Customer, search for the causes of any defects, imperfection or fault under the direction of the Customer. The cost of such work shall be borne by the Contractor.
- d) At intervals specified by the Customer, the Contractor along with the Customer shall inspect the contract work to satisfy himself that no defects have cropped up in the contract work. Should there be any signs of defects, the Contractor shall take immediate steps to rectify the same.
- e) At the end of the defect liability period, the Contractor along with the Customer will carryout final inspection to prove that no defects had appeared in the contract work or that all defects which appeared in the contract work have been rectified to the satisfaction of the Customer. If during the final inspection it is found that the defects still remains in the contract work, the period of defect liability shall be extended for further period which will be mutually discussed and agreed, for rectifying the defect and the Contractor shall be liable to make good the defects and be responsible for the maintenance of the work till the defect have been fully removed.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - IV: Time Schedule

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	<p>f) Until the end of the defect liability period, the Contractor shall have right of entry at his own risk and expense, by himself or his duly authorized representative whose name shall previously have been communicated in writing to the Customer at all reasonable working hours, upon all necessary parts of the works for the purpose of inspection and taking notes there from and, if he desires, at his own expense, making any tests subject to the approval of the Purchaser, which shall not be unreasonably withheld.</p> <p>g) The issue of the Customer's certificate shall in no way exempt the Contractor from the provisions of this clause.</p> <p>h) To the intent that the works shall or as soon as practicable after the expiration of defect liability period be handed over to the customer in perfect condition to the satisfaction of the customer, all such repair works as stated herein above, shall be carried out by the Contractor at his own expense if the necessity thereof shall in the opinion of the customer be due to the use of materials or workmanship not in accordance with the contract or failure on the part of the Contractor to comply with any obligation expressed or implied on Contractor's part under contract.</p> <p>i) If the Contractor fails to commence rectification of such defects within fourteen (14) days from the date of Notice by the customer/BHEL or does not complete the said rectification with diligence and within mutually agreed time period, the Customer/BHEL shall be entitled to carry out such work by his own workmen or by other Contractors and if such work is the work which the Contractor should have carried out at his own cost, the customer/BHEL shall be entitled to recover from the cost thereof or may deduct the same from any money due or that become due to the Contractor.</p> <p>j) Upon the successful completion of defect liability period, the Purchaser shall issue final acceptance certificate to the Contractor.</p>
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# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - V: Limiting Guarantee Power and Performance Guarantee

<b>05.00</b>	<b>Limiting Guarantee Power and Performance Guarantee</b>
<b>05.01</b>	<b>Station Auxiliary Power Consumption</b>  The station auxiliary power consumption for the Ash handling Plant shall not exceed <b>12900 KW</b> with duty factors (Refer Annexure-13) and <b>240 kW</b> for Mill reject system with duty factors (Refer Annexure-13A). The same shall be submitted along with technical bid. Bidder shall furnish equipment wise power consumption for list of equipment drives with corresponding weightage factors. Liquidated damages shall be applied as per Section B / Vol. I/Section-9 PERFORMANCE GUARANTEES of NLC specification and amendments (Annexure-6&7) on account of shortfall in auxiliary power consumption during PG test.
<b>05.02</b>	Liquidated damages shall be applied on account of shortfall in auxiliary power consumption during PG test as defined under Section B / Vol. I/Section-9 PERFORMANCE GUARANTEES of NLC NIT specification and amendments. Rate of LD shall be INR 1,68,432/- (Rupees One Lac Sixty-Eight Thousand Four Hundred and Thirty-Two Only) for every 1 KW increase in auxiliary power consumption from the value .
<b>05.03</b>	<b>Performance Guarantee</b>  The parameters/capabilities to be demonstrated for various systems/ equipment shall as per Section B / Vol. I/Section-9 PERFORMANCE GUARANTEES and elsewhere of NLC NIT specification and amendments (Annexure-6&7). Liquidated damages shall be applied as per SCC on account of shortfall in equipment guaranteed parameters during PG test. The PG test procedures specified in the NLC specification shall be adhered while conducting PG test. Bidder to submit declaration as attached in Annexure 13 B.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - VI: Sub Qualification Requirements

<b>06.00</b>	<b>SUB- QUALIFICATION REQUIREMENT</b>  Bidder to note that following sub-Qualification requirements to be met and further clearance to be taken from BHEL/NLC for vendor approval as per procedure laid down for vendor approval from NLC. Only BHEL & NLC approved vendor shall be considered before placement of order on sub-vendors and same has to be ensured by the successful bidder.
<b>06.01</b>	<b>Design engineering Agency for HCSD system:</b>  Design engineering agency/agencies for HCSD system should be either an HCSD system supplier meeting the qualification of PQR clause <b>A 1 iii</b> , for the offered system or consultancy organisation who has designed and engineered similar system(s) for handling not less than 60 tonnes of ash per hour, for pulverised coal fired power station(s) and the system(s) should have been in successful operation for at least two (2) years as 27.11.2024.
<b>06.02</b>	<b>For Mill Reject Handling System:</b>  Bidder or its Sub-vendor should have designed, manufactured and should have in-house testing facility for mill reject system (pneumatic type) with minimum rated capacity of 5TPH.  <b>Note:</b>  Copy of minimum one (1) performance certificate in English from end user along with copy of related Purchase Order (PO) or letter of intent (LOI) or letter of award (LOA) or work order (WO) specifying that the system is running satisfactorily for one (1) year from date of commissioning, as on the date of bid opening.
<b>06.03</b>	<b>Note: Bidder to note that for above Sub-Qualification requirements clearance to be taken from BHEL/NLC for approval of Sub-contractor. Only BHEL/Owner NLC approved Sub-contractor shall be considered. Accordingly, before placement of order on sub-contractor, same has to be ensured.</b>
<b>06.04</b>	Provenness criteria of all other Items/Equipments which shall be part of the package and required for the completion of the package shall have to be met by the bidder in line with the attached End User Specification attached in Annexure 6 & 7.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - VII: Terms of Payment

<b>07.00</b>	<b>PAYMENT TERMS</b>
<b>07.01</b>	<p><b>Supply for Plant and Equipments (excluding Mandatory Spares) quoted on Ex-works (India) basis</b></p> <p><i>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.</i></p>
<b>07.01.01</b>	<p><b>62 % of Total Ex-Works Supply Price Component of the Contract Price</b> for each identified equipment upon dispatch of equipment on Ex-Works basis / quantity / tonnage basis or as per approved billing schedule from manufacturer's works on pro-rata basis on production of invoices, packing lists, satisfactory evidence of dispatch (which shall be original Goods Receipt or receipted GR/Rail Receipt), inspection reports/tests certificate including Material Dispatch Clearance Certificate (MDCC).</p> <p><b>Note:</b> Before commencement of supplies, the Contractor shall submit QAP and obtain BHEL/Owner.</p> <p>Following documents to be submitted by Contractor:</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.</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) Submission of documentary evidence by the Contractor towards having taken the insurance policy(ies.) in terms of relevant provisions of and acceptance of same by the OWNER/BHEL.</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> <li>j) Duty drawback (if applicable) documents: As per applicable law</li> </ol> <p><b>Note:</b> - <i>Above list is tentative in nature and will be finalised at the time of WORK ORDER.</i></p> <p><i>Note:</i></p> <ol style="list-style-type: none"> <li>i. BHEL may require certain original (physical) dispatch documents for billing to BHEL's customer. Such original documents, as insisted by BHEL, shall be</li> </ol>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - VII: Terms of Payment

	<p>submitted to BHEL in original within 7 days from the date of removal of goods/ generation of the document, whichever is earlier.</p> <p>ii. 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>
<b>07.01.02</b>	<p><b>20% of Ex-works price</b> of Supply Price Component of the Contract Price for each identified equipment on receipt of equipment at site (Quantity/ tonnage basis/ or as per approved billing schedule) on pro-rata basis and physical verification and certification/ acceptance by the Owner for the equipment received in good condition and stored at site.</p> <p>Collection of Material Receipt Certificate from Site/ Owner and its submission for claiming the payment shall be the responsibility of the Contractor.</p> <p>Documents to be submitted by vendor:</p> <ul style="list-style-type: none"><li>a) LR / Courier receipt / RR (indicating Invoice No., no. of boxes, PTL (if applicable) etc.) (For indigenous supplies)</li><li>b) Bill of Lading or Air Way Bill (For imported items)</li><li>c) COO - Certificate of Origin (For imported items)</li><li>d) 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>e) Duty drawback (if applicable) documents: As per applicable law</li><li>f) E-way bill as may be applicable.</li><li>g) 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></ul> <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>
<b>07.01.03</b>	<p><b>Intermediate Payment- 8% Price shall be released on achievement of intermediate milestone events as mentioned here under: -</b></p> <ul style="list-style-type: none"><li>1. Completion of Fly Ash Silo- 1%</li><li>2. Completion of Dewatering Bin - 1%</li><li>3. Readiness of Bottom &amp; Fly Ash evacuation system (U#1) - 1 %</li><li>4. Readiness of Bottom &amp; Fly Ash evacuation system (U#2)- 1 %</li><li>5. Readiness of Bottom &amp; Fly Ash evacuation system (U#3)- 1 %</li><li>6. 1st Unit Synchronization - 1 %</li><li>7. 2nd Unit Synchronization - 1 %</li><li>8. 3rd Unit Synchronization - 1 %</li></ul>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - VII: Terms of Payment

<b>07.01.04</b>	<p><b>Payment on Provisional Taking Over: -</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">Sl. no</th> <th style="width: 20%;">% Payment</th> <th style="width: 60%;">Remarks</th> </tr> </thead> <tbody> <tr> <td>1<sup>st</sup> Instalment</td> <td>1.5 %</td> <td>After Provisional Take Over of Unit#1</td> </tr> <tr> <td>2<sup>nd</sup> Instalment</td> <td>0.75%</td> <td>After Provisional Take Over of Unit#2</td> </tr> <tr> <td>3<sup>rd</sup> Instalment</td> <td>0.75%</td> <td>After Provisional Take Over of Unit#3</td> </tr> </tbody> </table>	Sl. no	% Payment	Remarks	1 <sup>st</sup> Instalment	1.5 %	After Provisional Take Over of Unit#1	2 <sup>nd</sup> Instalment	0.75%	After Provisional Take Over of Unit#2	3 <sup>rd</sup> Instalment	0.75%	After Provisional Take Over of Unit#3												
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<b>07.01.06</b>	<p><b>Notes:</b></p> <p>a) 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.</p> <p>b) In case Installation Price (excluding Civil and Site Fabricated Structural works price) is less than 10 % of Total Contract Value, the amount by which it is lower shall be retained proportionately from the Ex-works component of Contract price while releasing payments due on receipt of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid on Final Taking Over of the plant.</p> <p>c) The Contractor shall provide at its own cost, necessary labour, tools &amp; tackles and all other assistance as may be necessary for opening the cases for necessary verification by the Customer and repacking the same.</p> <p>d) If the agreed PG tests and/or the Final Takeover is delayed beyond six months from the date of completion of Trial Operation due to reasons not attributable to Contractor, the respective stage payment against "Successful completion of PG test and / or Final Takeover" for supply shall be released against production and acceptance of Retention Money Bank Guarantee for equal amount valid for one year or the revised schedule date of PG tests and Final takeover whichever</p>																								

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - VII: Terms of Payment

	<p>is earlier. If the PG tests and Final Takeover gets delayed further, the validity of the bank guarantee is to be extended till the actual date of performance guarantee tests and/or Final take over.</p> <p>e) If the Contractor has fulfilled all the obligations for respective milestone activities towards conductance of Trial Operation and if the Trial Operation and the subsequent Provisional Take Over is delayed beyond 30 days from the scheduled date due to reasons not attributable to Contractor, the Contractor shall be eligible for payment of respective stage payment against "Provisional Take Over" on submission of equivalent Retention Money Bank Guarantee, which shall be released after the Provisional Take Over.</p>									
<p><b>07.02</b></p>	<p><b>Terms for Mandatory Spares and Tools &amp; Tackles quoted on Ex-Works (India) basis:</b></p> <table border="1" data-bbox="344 656 1434 902"> <thead> <tr> <th>Sl no</th> <th>% Payment</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>75%</td> <td>(i) Billing break-up for Mandatory spares and Tools &amp; Tackles shall be submitted by the Contractor and approved by the BHEL/ Customer. (iii) Certificate of receipt of package at site by Customer.</td> </tr> <tr> <td>2</td> <td>25%</td> <td>Inspection &amp; Certification by Customer and handing over to Customer.</td> </tr> </tbody> </table> <p><i>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.</i></p>	Sl no	% Payment	Remarks	1	75%	(i) Billing break-up for Mandatory spares and Tools & Tackles shall be submitted by the Contractor and approved by the BHEL/ Customer. (iii) Certificate of receipt of package at site by Customer.	2	25%	Inspection & Certification by Customer and handing over to Customer.
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<p><b>07.02.01</b></p>	<p><b>FOR DISPATCH INTIMATION / RECOGNITION OF DISPATCH</b></p> <p>a) Legible scanned copy of the following documents by e-mail immediately on dispatch for dispatch intimation</p> <p>b) GST compliant invoice</p> <p>c) LR / Courier receipt / RR (indicating Invoice No., no. of boxes, PTL (if applicable) etc.) and Bill of Lading or AWB for imported items</p> <p>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</p> <p>e) Submission of documentary evidence by the Contractor towards having taken the insurance policy(ies.) in terms of relevant provisions of and acceptance of same by the OWNER/BHEL.</p> <p>f) Dispatch Clearance.</p> <p>g) E-way bill, as may be applicable</p> <p>h) COO - Certificate of Origin (For imported items)</p> <p>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</p>									

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

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	<p>j) Duty drawback (if applicable) documents: As per applicable law.</p> <p>k) 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>l) 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> <p><b>Note:</b> - Above list is tentative in nature and will be finalised at the time of WORK ORDER.</p>
<b>07.03</b>	<p><b>CIVIL (including Structural Works) : The Civil Works Component of the Contract Price Shall be paid as under:</b></p> <p><i>The payment for running bills will normally be released within 30 days of submission of running bill complete in all respects with all documents. It is the responsibility of the contractor to make his own arrangements for making timely payments towards labour wages, statutory payments, outstanding dues etc. and other dues in the meanwhile. 60% of RA Bills complete and correct in all respects and certified by BHEL Engineer, shall be paid within 15 days of receipt. Balance payment shall be within 30 days.</i></p>
<b>07.03.01</b>	<p><b>90 % (Ninety percent)</b> of the total Civil Works Price Component of Contract Price shall be paid progressively on certification by the BHEL/Customer for the quantum of work completed and by BHEL/Customer 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> <p>Note:</p> <p>a. In case the Civil Works Price (including Structural works price) is less than 30 % of Total Contract Value, the amount by which it is lower shall be retained proportionately from the Ex-Works component of Contract price while releasing payments due on dispatch of equipment, and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid on pro-rata basis upon completion of Civil Works including Structural works (if any) corresponding to the respective equipment and its certification by the Project Manager of Owner/BHEL.</p> <p>b. In case the Civil Works Price (including Structural Works Price) is more than 50 % of Total Contract Value, the amount by which it is higher shall be retained while releasing progressive payments due on completion of civil works (including Site Fabricated Structural works), and no interest shall be payable on the retained amount. The aforesaid retained amount shall be paid along with payment due on completion of Trial Operation / Completion of Facilities.</p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

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<b>07.04</b>	<p><b>For Installation Services of Plant &amp; Equipment- Erection and Commissioning - excluding Civil and Structural Portion:</b></p> <p><i>The payment for running bills will normally be released within 30 days of submission of running bill complete in all respects with all documents. It is the responsibility of the contractor to make his own arrangements for making timely payments towards labour wages, statutory payments, outstanding dues etc. and other dues in the meanwhile. 60% of RA Bills complete and correct in all respects and certified by BHEL Engineer, shall be paid within 15 days of receipt. Balance payment shall be within 30 days.</i></p>																								
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	<p>all respects and certified by BHEL Engineer, shall be paid within 15 days of receipt. Balance payment shall be within 30 days.</p> <p>b) <b>For C&amp;I:</b> 90% payment shall be released on pro-rata basis (as per the mutually agreed billing schedule in line Owner's approved BBU with BHEL) detailed below:</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 5%;">Sl. No</th> <th style="width: 35%;">Nature of Payment</th> <th style="width: 10%;">%</th> <th style="width: 50%;">Conditions to be fulfilled</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1.</td> <td>Progressive*4</td> <td style="text-align: center;">37 %</td> <td>On erection of each item.</td> </tr> <tr> <td style="text-align: center;">2.</td> <td>Progressive</td> <td style="text-align: center;">27%</td> <td>On completion, calibration, pre-commissioning test of respective item.</td> </tr> <tr> <td style="text-align: center;">3.</td> <td>Progressive</td> <td style="text-align: center;">26%</td> <td>On successful commissioning of respective items.</td> </tr> </tbody> </table>	Sl. No	Nature of Payment	%	Conditions to be fulfilled	1.	Progressive*4	37 %	On erection of each item.	2.	Progressive	27%	On completion, calibration, pre-commissioning test of respective item.	3.	Progressive	26%	On successful commissioning of respective items.								
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<b>07.04.04</b>	<p><b>Note:</b></p> <p>a) Progressive payments for erection will be made based on Customer's certificate on the basis of the 'Works' performed and on equipment / system/ pro-rata tonnage using the above guidelines.</p>																								

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

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	<p>b) The Billing Break up shall be on weight (tonnage) basis. However, for the items which are generally supplied, erected and billed an item rate basis, the billing break up, may be considered on item rate basis.</p> <p>c) If the PG (Performance Guarantee) tests and/or the Final Takeover is delayed beyond six months from the date of completion of Trial Operation due to reasons not attributable to Contractor, the respective stage payment against “Successful completion of PG test and / or Final Takeover ” for erection shall be released against production and acceptance of Retention Money Bank Guarantee (as per the format enclosed) for equal amount valid for one year or the revised schedule date of performance guarantee tests and Final takeover whichever is earlier. If the PG tests and Final Takeover gets delayed further, the validity of the bank guarantee is to be extended till the actual date of performance guarantee tests and/or Final take over.</p> <p>d) If the Contractor has fulfilled all the obligations for respective milestone activities towards conductance of Trial Operation and if the Trial Operation and the subsequent Provisional Take Over is delayed beyond 30 days from the scheduled date due to reasons not attributable to Contractor, the Contractor shall be eligible for payment of respective stage payment against “Provisional Take Over” on submission of equivalent Retention Money Bank Guarantee, which shall be released after the Provisional Take Over.</p>
<b>07.04.05</b>	<p><b>For Payment terms for Transport</b></p> <p><b>Inland transport for both Indigenous and Imported Component (As applicable):</b></p> <p>100% Payment for Inland transport both for imported (for the respective shipment) and indigenous items on pro-rata basis shall be paid against invoices submitted restricting to the lump sum and firm price.</p>
<b>07.04.06</b>	<p><b>Pro-rata Tonnage Rate</b></p> <p>Wherever pro-rata tonnage rate is required, the same shall be arrived as follows:</p> <p>Supplies (Ex-works) / Erection / Civil works component of the system</p> <p>-----</p> <p>Total weight of the respective system (in metric tonnes)</p>
<b>07.04.07</b>	<p><b>Terms of Payment for Training of personnel</b></p> <p>Payment shall be made for Training completion – on Man-month basis - after completion of training, for final payment shall be made in Indian rupees on pro rata man month basis.</p> <ul style="list-style-type: none"><li>• However, total amount payable on account of Training shall not exceed the ceiling indicated in the schedule of price</li></ul> <p>Man-months Details/Break -up as applicable shall be furnished during detail engineering. Rate for man-month shall be applicable based on derived pro-rata rate for period mentioned in the Price Break-Up format Annexure 19.</p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

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<b>07.04.08</b>	<b>OTHER CONDITIONS:</b> <ul style="list-style-type: none"><li>i. All the progressive payments mentioned above shall be made based on the satisfactory progress of work as agreed.</li><li>ii. All interim/progressive payments shall be regarded as payments by way of advance against the final payment only and not as payment for work actually completed and shall not preclude defective /imperfect/incomplete work to be removed. It will not be considered as an admission by the Purchaser of the due performance of the Contract, or any part thereof by the Contractor nor shall it preclude, determine or affect in any way the powers of the Purchaser under these conditions or in any other way vary or affect the Contract.</li><li>iii. The Purchaser reserves the right to encash Bank Guarantees if sufficiently convinced of negligence and lack of dedication to work on the part of the Contractor.</li><li>iv. Claims on account of price variation shall be settled on a quarterly basis after completion of supplies/ erection/civil works during the previous quarter.</li><li>v. The Contractor shall prepare and submit every six months, a statement covering payments claimed and the payments received vis-à-vis the works executed, for reconciliation of accounts with the Purchaser.</li></ul>
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<b>07.05.01</b>	-Void-
<b>07.05.02</b>	-Void-
<b>07.05.03</b>	<b>FOR CLAIMING ERECTION &amp; COMMISSIONING, CIVIL &amp; STRUCTURAL PAYMENT:</b> <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 approved FQP.</li><li>vi. HR compliance documents</li><li>vii. Bank Guarantee, if applicable as per Notes of payment terms.</li><li>viii. WAM-6</li></ul> <b>FOR CLAIMING PAYMENT AGAINST COMMISSIONING (NO LOAD), TRIAL OPERATION, PG/ DEMONSTRATION TEST(S) AT SITE, HANDING OVER:</b> <ul style="list-style-type: none"><li>i. GST invoice</li><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 LOA or execution of the contract, Compliance of these is required before 1st retention payment release.</li></ul>
<b>07.06</b>	<b>FOR CLAIMING PVC AMOUNT:</b> <ul style="list-style-type: none"><li>i. GST compliant invoice</li></ul>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - VII: Terms of Payment

	<ul style="list-style-type: none"> <li>ii. PVC calculation duly approved by BHEL</li> <li>iii. All documents in support of PVC calculation.</li> </ul>															
<b>07.07</b>	<p><b>PRICE VARIATION CLAUSE: -</b></p> <p>PVC shall be applicable for Ex-Works Price of Plant and Equipment Excluding Mandatory Spares, Installation Price Component of Contract Price, Civil Works price component of Contract Price (including Structural Works price component of Contract Price per Appendix-K (PVC) 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>The price adjustment provisions shall be applicable separately for price components relating to Supply of Equipment from India only, Installation, Civil and Structural Works, as per price break-up furnished by the Contractor. The price variation shall be without any ceiling; however, the indices shall be capped as on the end of contractual delivery period.</p> <p>The Price Variation shall be applicable beyond the contractual delivery period, id extension of time is granted due to any of the following: -</p> <ul style="list-style-type: none"> <li>a) For reasons directly attributable to the Customer.</li> <li>b) Force majeure conditions specified in the tender/contract document.</li> </ul> <p>For Claiming PVC, the base date shall be considered as the Last Date of Bid Opening.</p> <p>The price variation claim along with corresponding taxes and duties shall be raised quarterly. The payment shall be done within days as specified for respective item. The price variation shall be paid as stipulated below:</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 10%;">Sl</th> <th style="width: 40%;">% Percentage</th> <th style="width: 50%;">Conditions fulfilled</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1.</td> <td>90% along with 100% Taxes and Duties.</td> <td>Invoices with all supporting documents.</td> </tr> <tr> <td style="text-align: center;">2.</td> <td>3% (1.5% +0.75% +0.75%)</td> <td>Shall be claimed along with the payment for provisional takeover unit-wise.</td> </tr> <tr> <td style="text-align: center;">3.</td> <td>3% (1.5% +0.75% +0.75%)</td> <td>Shall be claimed along with the payment for PG test unit-wise.</td> </tr> <tr> <td style="text-align: center;">4.</td> <td>4% (2% +1% +1%)</td> <td>Shall be claimed along with final payment unit-wise.</td> </tr> </tbody> </table>	Sl	% Percentage	Conditions fulfilled	1.	90% along with 100% Taxes and Duties.	Invoices with all supporting documents.	2.	3% (1.5% +0.75% +0.75%)	Shall be claimed along with the payment for provisional takeover unit-wise.	3.	3% (1.5% +0.75% +0.75%)	Shall be claimed along with the payment for PG test unit-wise.	4.	4% (2% +1% +1%)	Shall be claimed along with final payment unit-wise.
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<b>07.08</b>	<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>															

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - VII: Terms of Payment

07.09	<p><b>BILLING BREAK UP (BBU)</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 within 7 days from the date of LOA, a break-up of the Contract Price in the currencies of the Contract in line with Annexure 19.</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.</p> <ul style="list-style-type: none"><li>a) Bidders are advised to price their bids in such a manner that Installation Price Component of the bid price (excluding Civil/Structural works price) should not be less than 10% of the total Contract Value.</li><li>b) Bidders are advised to price their bids in such a manner that Mandatory Spares Price Component of the bid price should not be less than 5% of the cumulative total Ex-works Price of Main Equipment.</li><li><b>c) Bidders are advised to price their bids in such a manner that the Civil Works Price Component of the bid price (including Site Fabricated Structural works price) should be in the range of 30-50 % of the total contract value.</b></li></ul> <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>The unit / set / system / package for the purpose of the payment under sl.no. 7.1 to 7.8 shall be either as per price format or mutually agreed during approval of billing schedule. Further, the purchaser 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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# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - VII: Terms of Payment

<b>07.10</b>	<p><b>Secured Recoverable Advances:</b> Interest Free Secured Mobilization Advance. 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 only on Total Civil + Installation/ Erection + Structural Works in line with the Approved BBU.</b></p> <p>A) 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 – <b>1 %</b>.</p> <p>B) 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 – <b>2 %</b>.</p> <p>C) For Start of Structural Fabrication Works including the Establishment of Site Facilities, Deployment of T &amp; Ps as required– <b>2 %</b>.</p> <p>The Requirements of T&amp;Ps for the start of works defined in (B) &amp; (C) shall be in line with the Project Requirement and as certified by the project manager of BHEL.</p> <p>Note: -</p> <p>1. BHEL Site-CM shall be the deciding authority for assessing the admissibility of advance payment to contractor.</p> <p>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.</p> <p>3. Advance payment shall be released within 45 days of receipt of a complete and valid set of documents required for claiming advance payment, in accordance with the provisions of the tender.</p>
<b>07.11</b>	<p><b><u>Price Bid</u></b></p> <p><b>a) 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). 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><b>b) 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.</b></p> <p><b>c) Transportation of goods up to Destination shall be arranged by vendor on behalf of BHEL.</b></p> <p><b>d) 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>
<b>07.12</b>	<p><b><u>Any and all the other commercial terms and conditions shall be in line with the BHEL TCC/GCC Commercial Terms and Conditions attached along with this document.</u></b></p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - VIII: Liquidated Damages

<b>08.00</b>	<p><b>LIQUIDATED DAMAGES/PENALTY</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 Seller/Contractor 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 BHEL for , it shall be lawful for BHEL to recover damages for breach of Order/Contract and hereunder.</p>																		
<b>08.01</b>	<p><b>LIQUIDATED DAMAGES DELAYED DELIVERY</b></p>																		
08.01.01	<p>Time is the essence of this CONTRACT. In case the CONTRACTOR fails to adhere to the time schedule for Completion of Trial Operation of the respective unit as specified in Clause No. 04.02 Sl. No. (6) Completion of Trial Run then, unless such failure is due to Force Majeure as per the details stated in the contract or due to BHEL's defaults the LD shall be applicable for each Unit (including Price variation if any) at 0.6% per week of delay or part thereof subject to a maximum of 6% of the Contract Price. <b>(including Price variation, if any) .</b></p> <p><b>For the Liquidated Damages (LD) clause, Contract Price of each unit shall be considered as 50% for Unit-I, 25% for Unit-II and 25% for Unit-III of the Contract Price including Price Variation if any.</b></p>																		
<b>08.02</b>	<p><b>LIQUIDATED DAMAGES/PENALTIES FOR SHORTFALL IN GUARANTEED PERFORMANCE PARAMETERS:</b></p>																		
08.02.01	<p>Liquidated Damages for not meeting performance guarantees declared in Annexure 13A ,13 B during the Performance tests shall be assessed and recovered from the Contractor as detailed in End User's Tender specification SECTION-9 of Volume I Section B - PERFORMANCE GUARANTEES. Such liquidated damages which are in addition to any other damages provided for in Contract shall be assessed at the rates and subject to the other conditions set forth in the End User's Tender Technical Specifications its amendment and Clarifications.</p> <p>Contractors liability to pay Liquidated Damages (LD) for failure to attain the Performance Guarantee shall not exceed the limiting values as indicated below:</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 5%;">S.No</th> <th style="width: 65%;">Performance Guarantee parameters</th> <th style="width: 30%;">Limiting Value / Capping for LD as a percentage of the Total contract value including price variation</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">A.</td> <td>Unit 1 on standalone basis</td> <td style="text-align: center;">5%</td> </tr> <tr> <td style="text-align: center;">B.</td> <td>Unit 2 on standalone basis</td> <td style="text-align: center;">5%</td> </tr> <tr> <td style="text-align: center;">C.</td> <td>Unit 3 on standalone basis</td> <td style="text-align: center;">5%</td> </tr> <tr> <td style="text-align: center;">D.</td> <td>Station guarantee parameters on standalone basis</td> <td style="text-align: center;">5%</td> </tr> <tr> <td style="text-align: center;">E.</td> <td>Overall Ceiling for LD on account of shortfall in performance Guarantee (A,B,C &amp;D)</td> <td style="text-align: center;">15%</td> </tr> </tbody> </table>	S.No	Performance Guarantee parameters	Limiting Value / Capping for LD as a percentage of the Total contract value including price variation	A.	Unit 1 on standalone basis	5%	B.	Unit 2 on standalone basis	5%	C.	Unit 3 on standalone basis	5%	D.	Station guarantee parameters on standalone basis	5%	E.	Overall Ceiling for LD on account of shortfall in performance Guarantee (A,B,C &D)	15%
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**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter - VIII: Liquidated Damages**

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08.02.02	The liquidated damages shall be prorated for the fractional parts of the deficiencies.
08.02.03	Where ever Liquidated Damages (LD) is recoverable as per the terms of the contract, the same shall be recovered from the contractor along with GST (as and if applicable).

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - IX: SPARES

<b>09.00</b>	<b>SPARES</b>
<b>09.01</b>	<b>MANDATORY SPARES:</b>
<b>09.01.01</b>	<p>The list of Mandatory spares is available in Annexure-6 (<b>Section B, Vol. II-A/Section-IX Mandatory Spares-BOP</b>) and other relevant part of the Owners specification and the Bidder shall include the itemized and total price for all these spares. Where the spares are indicated as a percentage and result in a number plus fraction, the same shall be converted to the near higher whole number.. The following points also to be noted by bidder</p> <ul style="list-style-type: none"><li>a) In case spares indicated in the list are not applicable to the particular design offered by the bidder, the bidder should offer spares applicable to offered design with quantities generally in line with approach followed in the above list.</li><li>b) The description of various items is only indicative and shall be supplied according to approved drawings/ Data sheets.</li><li>c) The spares for the equipment's shall pertain to the specific equipment's only. In case, if found at any stage of the project, that the spares supplied by the bidders are not fitting or not matching, the same shall be supplied again by the bidder without any cost implication to BHEL.</li><li>d) Work instructions for storage &amp; handing over of mandatory spares to NLC is as under: -<ul style="list-style-type: none"><li>i. 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>ii. All boxes/containers are to be distinctly marked in red color with boldly written "S" mark on each face of the containers</li><li>iii. 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 customer.</li><li>iv. 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>v. Storage, safety of boxes/items and maintaining requisite inventory records will be the responsibility of bidder's representative at site.</li><li>vi. Bidders shall make periodic checks for safety of boxes/items, as the case may be.</li><li>vii. Handing over of mandatory spares, getting MRC from customer and physical reconciliation with customer shall be the joint responsibility of the bidder's site representative and BHEL's site representative.</li></ul></li><li>e) For all bought out item packages, the contractor shall provide complete material/ component list along with detail specification, drawings, component part no. etc. during detailed engineering stage prior to final approval. Such approved document / drawings shall be made available at site (a good number) prior to commencement of erection work. Moreover, such document / drawing shall be provided in soft form (hard disk).</li></ul>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - IX: SPARES

09.01.02	<b>-Void-</b>
09.01.03	<b>Start-up, Commissioning, Operation and Maintenance Spares</b>  Start-up and commissioning spares are those spares which may be required during the start-up and commissioning of the equipment/system of AHP and MRHS . 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.
09.01.04	<b>General</b> <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/ end user, 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>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

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

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<b>10.00</b>	<b>DOCUMENTS / INFORMATION TO BE FURNISHED ALONGWITH TECHNICAL OFFER:</b>
<b>10.01</b>	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. Bidder shall note that the bid is a “No Deviation Bid”.
<b>10.02</b>	Consumed power values and motor ratings of all the equipment.
<b>10.03</b>	Electrical Load list/Feeder list with type/rating/power requirement.

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter - XI: Material Handling, Transportation and Storage**

<b>11.00</b>	<b>Material Handling, Transportation and Storage</b>
<b>11.01</b>	<b>PACKING</b>
<b>11.01.01</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>11.01.02</b>	In case of shipment by sea, the packing shall be sea-worthy and of international standards.
<b>11.01.03</b>	<p>Packing List shall be submitted as per standard format along with advance set of documents for claiming payment which must indicate:</p> <p>i. No. of boxes  ii. Packing size.  iii. Gross weight and net weight of each package.  iv. Contents of the package with cross reference to BoM item code no. or item serial no.  v. Quantity of each item separately.</p> <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>11.02</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 PO 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>11.03</b>	<b>COLOUR CODING OF TAGS/ MARKING/ STICKERS</b>
11.03.01	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.
11.03.02	<p>Tags should be of the color as mentioned below:</p> <p>Main equipment: Yellow or White tag  Mandatory spares: Pink or Red tag  Start-up/ Commissioning spares: Blue tag  O&amp;M spares: Green tag</p>
11.03.03	Similar color scheme to be followed wherever stickers are pasted on components.
<b>11.04</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</p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

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

	followed by the vendors.
<b>11.05</b>	<b>MATERIAL RECEIPT CERTIFICATE</b> Seller/ Contractor shall arrange Material Receipt Certificate from the project site, duly signed by Purchaser/ Owner Site Engineer after receipt & physical verification of the material at site.
<b>11.06</b>	<b>CONSIGNEE'S RIGHT OF REJECTION</b>
11.06.01	Notwithstanding any approval of Purchaser 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 Seller/ Contractor 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, 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.
11.06.02	Rejected goods or materials shall be removed by Seller/ Contractor 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 Seller/ Contractor.
<b>11.07</b>	<b>RISK IN STORES</b> Seller/ Contractor 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 Seller/ Contractor, his agents or servants, or a carrier, or in joint possession of Seller/ Contractor, his agent or servants and BHEL, his agents or servants, shall remain in every respect at the risk of Seller/ Contractor 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. Seller/ Contractor 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>11.08</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 Seller/ Contractor 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>11.09</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

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

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

	<p>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.</p>
<p><b>11.10</b></p>	<p><b>DISPATCH MARKINGS</b>  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>i. Name and address of the consignee (to be intimated at the time of dispatch clearance)</li> <li>ii. Dispatched by: (Vendor name)</li> <li>iii. 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>iv. Type of Supply: "<b>Main equipment supply</b>"/"<b>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>v. 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 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 Purchaser/ Employer upon dispatch of the plant and equipment.</p>
<p><b>11.11</b></p>	<p><b>E-Way Bill</b>  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 Seller/ Contractor shall be responsible for the issuance of e-way bill and other compliances relating to e-way bill as per GST law.</p>
<p><b>11.12</b></p>	<p><b>Patents</b></p> <ol style="list-style-type: none"> <li>i) If the performance of the Contract involves the use of a patent, trade mark, registered design, copy rights and/or industrial property rights of which the Contractor holds the title, the Contractor shall not be entitled to any licence fee, royalty and/or compensation from BHEL/Owner outside of the Contract Price which shall be deemed to include such licence fee, royalty and/or compensation.</li> <li>ii) Where the title holder of a patent, trade mark, registered design, copy rights and/or industrial property rights used is a third party, the Contractor shall be liable for settling with such party and paying any licence fee, royalty and/or compensation thereon.</li> <li>iii) The Contractor shall submit to BHEL/Owner a certificate from the licensor attesting technology of the licence granted.</li> <li>iv) In the event of any third-party raising claim or bringing action against the</li> </ol>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

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

	<p>BHEL/Owner including but not limited to action for injunction in connection with third party's alleged rights affecting the equipment covered under the Contract or the use thereof, the Contractor agrees and undertakes:</p> <p>(a) To defend and assist BHEL/Owner in defending at the Contractor's cost against such third party's claim and/or actions and against any law suits of any kind initiated against BHEL/Owner.</p> <p>(b) To indemnify, keep indemnified and hold harmless BHEL/Owner against all actions, claims, demands, costs, charges and expenses raised by third parties and arising from or incurred by reason of any infringement of patent, trade mark, registered design, copy rights and/or industrial property rights by manufacture, sale or use of the equipment supplied by the Contractor whether or not BHEL/Owner is held liable for by any court judgement. Provided, however, that:</p> <p>1). BHEL shall, as soon as reasonably possible notify the Contractor in writing of such third party's claim and/or action and:</p> <ul style="list-style-type: none"><li>• The Contractor shall at his own cost defend or assist the BHEL/Owner in defending his rights against any such claims and/or actions ;</li><li>• If the Contractor defends the case, BHEL/Owner shall assist the Contractor free of charge by providing all such information and documents as are available with the Purchaser, save and except that in case of production of any witness at the request or insistence of the Contractor shall bear the costs and expenses required in this regard.</li></ul> <p>2). BHEL shall not without the Contractor's consent (which shall not be unreasonably withheld) enter into any commitment or admit any fact capable of supporting third party's claims, unless the BHEL/Owner shall release the Contractor of his liabilities and obligations.</p> <p>3). The Contractor shall at his own cost, without prejudice to the provisions of this Clause, may either carry out such alterations or modifications of the equipment which are necessary to avoid the infringement without affecting the efficient operation of the equipment to the satisfaction of the BHEL/Owner or to procure a right to the unrestricted use of the infringing equipment by the BHEL/Owner.</p> <p>v) Nothing in this article shall abrogate or abridge the Contractor's own liability for infringement or violation of patent, trade mark, registered design, copy rights and/or industrial property right of a third party, if such infringement or violation is proved before and sustained in court of law and the Contractor fails to take action in terms of provision of Clause (iv) above.</p> <p>vi) If required and mutually agreed, the BHEL/Owner shall enter into Process License Contract(s) as per clause(ii) above.</p> <p>vii) The rights and liabilities of the parties under this Clause shall survive this Contract.</p>
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**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter - XI: Material Handling, Transportation and Storage**

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<b>11.13</b>	<p><b>Indemnity</b></p> <ol style="list-style-type: none"><li>1. The Contractor shall at all times indemnify and keep indemnified BHEL/OWNER against all claims which may be made against the BHEL/OWNER in respect of any infringement of any rights protected by patent registration of design of trade mark. In this connection, the BHEL/OWNER shall pass on all claims made against him to the Contractor for settlement.</li><li>2. The Contractor assumes responsibility for and shall indemnify and save harmless BHEL/OWNER from all liability, claims, costs, expenses, taxes and assessments including penalties, punitive damages, attorney's fees and court costs which are or may be required to be paid by BHEL arising from any breach of the Contractor's obligations under the Contract or for which the Contractor has assumed responsibilities under the Contract including those imposed under any Contract local or national law or laws, or in respect to all salaries, wages or other compensation or all persons employed by the Contractor or his Sub-Contractors or suppliers in connection with the performance of any work covered by the Contract. The Contractor shall execute, deliver and shall cause his Sub-Contractor and suppliers to execute and deliver, such other further instruments and to comply with all the requirements of such laws and regulation as may be necessary there under to conform and effectuate the Contract and to protect the Purchaser.</li><li>3. BHEL/OWNER shall not be held responsible for any accident or damages incurred or claims arising there from during the period of construction and erection under the responsibility of the Contractor/sub-Contractors/Collaborator(s)/ associates and putting into operation of the plant under the supervision of the Contractor in so far as the latter is responsible. However, the Contractor shall be liable for such accidents as may be due to negligence on his part to carry out work in accordance with Indian laws and regulations.</li><li>4. The Contractor shall be responsible for proper fencing, lighting, guarding and watching of all works at site until they are taken over and further arrange proper provisions for like period of temporary drainage, roadways, footways, guards and fences as far as may be rendered necessary by reason of works for accommodation and protection of the Purchaser's adjacent property and that of, the public and others. No naked light shall be used by the Contractor on the site otherwise than in the open air without the special permission in writing from the Purchaser. The purchaser shall not be responsible for any theft or misuse of material/plant, equipment.</li></ol>
<b>11.14</b>	<p><b>Surplus materials and scrap</b></p> <ol style="list-style-type: none"><li>i) Surplus material supplied by the Contractor and scrap generated shall be taken back free of cost by the Contractor with prior approval of the Purchaser. The cost of removal shall be borne by the Contractor.</li><li>ii) Contractor shall take back all crates, packing cases, all packing materials including steel packing materials.</li></ol>

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter - XI: Material Handling, Transportation and Storage**

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	<p>iii) No imported material shall be allowed to be taken out other than imported tools and tackles and instruments brought by the Contractor on draw back basis and provided, he has carried out necessary documentation at the time of bringing such items inside the Plant.</p> <p>The Contractor shall also indemnify to keep the Owner/End-User/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/End-User/BHEL 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/BHEL.</p>
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# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - XII: Exclusions/Free issue items

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<b>12.00</b>	<b>EXCLUSIONS:</b> <b>Following equipment/items and systems are excluded from bidder's scope w.r.t. NIT specifications, MOMs, amendments and clarifications (as per enclosures as floated along with this enquiry):</b>
<b>12.01</b>	<b>Supply of all HT motors</b> are excluded from bidder's scope as HT motors will be free issue to bidder by BHEL, however its E&C alignment with drive system (as applicable) shall be in bidder' scope.
<b>12.02</b>	<b>Supply of HT Switchgear</b> is excluded from the scope of bidder and will be free issue to bidder by BHEL, however its E&C shall be in bidder scope.
<b>12.03</b>	Supply of DCS System along with HMI and VMS for the AHP System is excluded from the bidder's Scope.
<b>12.04</b>	Exclusion for Mill Reject Handling System: Refer Annexure 2A.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - XIII: Terminal Points

<b>13.00</b>	<b>TERMINAL POINTS</b>
<b>13.01</b>	<p>A) The terminal points for the Ash Handling Plant are as follows:</p> <p style="padding-left: 40px;"><b>Starting:</b></p> <p style="padding-left: 80px;">a) Boiler seal plate.</p> <p style="padding-left: 80px;">b) Eco, Eco outlet Duct, AH-ESP Duct, APH, ESP Hopper's outlet flange.</p> <p style="padding-left: 40px;"><b>Ending:</b></p> <p style="padding-left: 80px;">a) Wet Bottom ash and Coarse ash (Eco, Eco outlet duct, APH, AH-ESP Duct): Outlet of discharge chute for truck loading in Dewatering bin.</p> <p style="padding-left: 80px;">b) Fly ash (Dry): Outlet of Ash conditioner and Unloading retractable chutes (unloading spout) in HCSD cum Main Fly ash Silos.</p> <p style="padding-left: 80px;">c) Fly Ash slurry (HCSD) – HCSD Slurry disposal Piping up to mine void area/Dyke.</p> <p style="padding-left: 80px;">d) Ash water recovery system pipe –AWRS Pump House outside boundary to sedimentation tank.</p>
<b>13.02</b>	<p>B) The terminal points/tapping points for the various water and air lines are as follows:</p> <p>Bidder to note that only tapping point will be given by BHEL. Isolation valves and valve station with instrumentation at the tapping point and subsequent piping to the AHP consumption points shall be in bidder's scope.</p> <p>(i) Raw water/CTBD water : 10m near the Ash water tank/HCSD Pump House.</p> <p>(ii) Clarified water/Seal water : 10m near the Ash Water Tank.</p> <p>(iii) Clarified water : 10m near Silo Utility building for ash conditioner</p> <p>(iv) DMCW (passivated) *** :  At one point near Compressor House, further distribution to compressor house and boiler area is in Bidder's Scope.</p> <p>(v) Potable water : 10m near AHP Main MCC room. Tank is in bidder's scope.</p>

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter - XIII: Terminal Points**

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	(vi)	Service water	:	
				At one point in AHP area. Further distribution including tank is in bidder's scope.
	(vii)	Service Air	:	
				At one point in AHP Area. Further distribution as applicable in AHP Area shall be in bidder's scope.
				*** The maximum pressure drop for the DMCW water between the tapping point in Supply line and tapping point in Return line shall be limited to 10mwc

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter-XIV: Tools and Tackles**

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<b>14.00</b>	<b>TOOLS AND TACKLES</b>
<b>14.01</b>	The bidder shall furnish a complete and new set of all tools and tackle which are necessary for erection, commissioning, maintenance and overhauling of any of the equipment/system provided under this specification.
<b>14.02</b>	Tools shall be shipped in separate containers clearly marked with the name of equipment for which they are intended.
<b>14.03</b>	The bidder shall furnish an unpriced list of such tools and tackle included under the scope of supply with the technical part of proposal along with price break up for review of end user/Consultant.
<b>14.04</b>	Items supplied shall be of best & approved quality and especially protected against rusting in tropical climate.
<b>14.05</b>	Supply of all tools and tackle are included under bidder's scope of work.

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter-XV: DRAWINGS AND DOCUMENTS SUBMISSION**

<b>15.00</b>	<b>DRAWINGS AND DOCUMENTS SUBMISSION</b>
<b>15.01</b>	<p>Bidder shall furnish the following details in their technical offer:</p> <ul style="list-style-type: none"> <li>• Electrical Load list/Feeder list with type/rating/power requirement.</li> <li>• Auxiliary power consumption of all the equipment as per Specification.</li> <li>• Un-priced price schedule mentioning “Quoted” against each item in BHEL</li> <li>• Water requirement and Instrument air requirement.</li> </ul>
<b>15.02</b>	<p>Bidder shall furnish the following details after placement of LOA.</p> <ul style="list-style-type: none"> <li>• List of Self Manufacturing Items with indicating manufacturing place.</li> <li>• Billing break-up schedules for supply and services.</li> <li>• Engineering document</li> </ul>
<b>15.03</b>	<p>Document related information.</p> <p>.01.0 The number of copies/prints/CD-ROMs/manuals to be furnished for various types of document is as per NIT specification and as finalised by BHEL after placement of order.</p> <p><del>.02.0</del> List of drawings shall be as per the MDL furnished in the NLC specification.</p> <p>.03.0 The data requirements in the engineering document shall be in line with requirements specified in NLC specification.</p> <p>.04.0 3-D models compatible with PDMS software and IPMS software for the complete system and coordinating with BHEL other units for alignment will be in the scope of bidder. During detailed engineering bidders shall submit the same along with the GA/OGA drawings for approval.</p> <p>.05.0 3D modelling of complete AHP buildings, AHP pipe racks, AHP MCC Buildings shall be carried out by successful bidder. Along with GA/OGA drawings the 3D modelled drawings shall also be submitted for approval.</p> <p>.06.0 Bidder shall furnish Erection and Commissioning manpower deployment plan, consumables, tools and tackles requirement for commissioning of the system.</p> <p>.07.0 All Manuals shall be supplied in proper bound books or in folders.</p> <p>.08.0 Approval of documents does not absolve the contractor from his contractual obligations.</p>
<b>15.04</b>	<p>During detail engineering, successful bidder(s) shall ensure flow of drawings/docs as mentioned below:</p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XV: DRAWINGS AND DOCUMENTS SUBMISSION

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- i. All drawings/documents and its subsequent revisions shall be submitted to BHEL for initial review and comments.
- ii. All BHEL comments shall be sent back to vendor for incorporation/correction within 7 days of receipt of drawings from vendor.
- iii. Vendor to incorporate these comments without changing the BHEL revision number in the drawings/docs and re-submit within maximum 5 days along with the compliance sheet.
- iv. Upon receipt of corrected drawings/docs from vendor, if the same are found OK, then it shall be submitted to end user/ end user's Consultant for their review/approval. But 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 iii shall repeat till drawings/docs are found in order. Only when the drawings/docs are found in order by BHEL, onward submission to end user/ end user's Consultant shall be done by BHEL.
- v. Bidder will be intimated about the drawings/ docs submission date to end user/ end user's Consultant.
- vi. Thereafter it shall be respective bidder's responsibility for obtaining time bound approval on all the engineering drawings and documents from end user / end user's Consultant and resolving the technical queries raised by BHEL/ end user. BHEL's role shall be limited to that of an enabler for arranging such technical discussion, meetings, video conferencing with end user/ end user's Consultant.
- vii. In the event end user/ end user's Consultant doesn't approve the drawings then the commented drawings/docs as received from end user/ end user's Consultant shall be sent to the vendor for revision.
- viii. Revised drawings/docs with compliance in next revision shall be submitted maximum within 5 days along with the compliance sheet as per the attached format.

The process as mentioned in point no. i to vii above shall follow till approval is received end user/ end user's Consultant.

**Note:**

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 end user/ end user's Consultant.

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter-XV: DRAWINGS AND DOCUMENTS SUBMISSION**

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<b>Sl. No</b>	<b>Description</b>	<b>Type of copies required</b>	<b>Number of copies required</b>	<b>Schedule of submission</b>
1	Drawings / Documents for Approval	Soft Copies	-	Starting Two Weeks from LOA
2	Revised Drawings / Documents Incorporating end user Comments if any.	Soft Copies	-	One Week after receipt of comments from end user/consultant forwarded by BHEL
3	Final Approved Drawings / Data / Documents	Prints & Soft Copies	6 Copies	One Week after Receipt of Approved Drawing from BHEL / Consultant.
4	Civil and structural Drawings	Prints	6 Copies	Progressive completion Within 12 Months of issue of LOA.
5	Erection Drawings & Manuals	Prints	6 Copies	Eight (8) Weeks before the Dispatch of the Equipment.
6	Pre-Commissioning / Commissioning Check List / Procedures.	Prints	6 copies	----- do -----
7	Quality Assurance Plan	Prints & Soft Copies	6 Copies	One Month from The Date of placing L.O.I
8	Final Operation & Maintenance Instruction Manuals	Prints & Soft Copies	One (1) Original & 6 Copies	One Month before the Dispatch of the Equipment.

In addition to the above, bidder has to submit to end user & consultant the number of copies as mentioned in End user's tender specifications.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XVI: Enclosures

<b>16.00</b>	<b>ENCLOSURES</b>
<b>16.01</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>○ Annexure - 1 Project Information</li> <li>○ Annexure - 2 Broad Scope Matrix</li> <li>○ Annexure- 2A Scope Matrix - MRS (Civil &amp; Electrical)</li> <li>○ Annexure - 3 Scope matrix Electrical and C&amp;I</li> <li>○ Annexure -3E QAP FOR CAT-III C&amp;I ITEMS</li> <li>○ Annexure -3F QAP FOR CAT-III ELECTRICAL ITEMS</li> <li>○ Annexure -3G GUIDELINES FOR DCS INTERFACING FOR CHP &amp; AHP SYSTEM</li> <li>○ Annexure - 4 Plot Plan (PDF)</li> <li>○ Annexure - 5 NLC Ash Flow Diagrams</li> <li>○ Annexure- 5A MRHS Single Line Flow diagram</li> <li>○ Annexure - 6 NLC NIT Specification</li> <li>○ Annexure - 7 NLC Clarification and amendments</li> <li>○ Annexure - 8 NLC Format for letter of support in case of collaboration</li> <li>○ Annexure - 9 Ash Collection Data, Coal &amp; Ash Characteristic, Boiler &amp; ESP detail etc</li> <li>○ Annexure -10 Design Memorandum, flow diagram</li> <li>○ Annexure -11 Sub-Vendor List</li> <li>○ Annexure -12 List of Do's and Donts for Ash Handling system</li> <li>○ Annexure -13 Guaranteed Power Consumption</li> <li>○ Annexure -13A MRHS Guarantee Power</li> <li>○ Annexure – 14 HSE Plan</li> <li>○ Annexure—15 Technical Specification MRHS</li> <li>○ Annexure –16 Batteries and e-waste management acts</li> <li>○ Annexure –17 Roads ad Drains Layout</li> <li>○ Annexure-18 Preliminary Geotechnical Investigation report</li> <li>○ Annexure –19 Price Break-up Format</li> <li>○ Annexure-20 Declaration Regarding the Sub Qualification Requirements.</li> <li>○ ANNEXURE-20-A Declaration regarding sourcing of the systems related to completion of the Ash Handling System &amp; MRHS</li> </ul>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XVI: Enclosures

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- Annexure – 21 Input Data to AHP vendor for Ash Level Low, High and 3DLS/ NOGS for ESP Hoppers
- Annexure-22 Technical specification for RF TYPE ASH LEVEL SWITCH
- Annexure-K PVC Formula.
- Annexure-A Standard Guidelines for workers Accommodation
- Annexure-B Definitions

**NOTE: BHEL specification has to be read in conjunction with the NLC NIT specification, clarifications & Amendments along with all other annexures listed above and declaration shall be submitted to BHEL for confirming that bidder has gone through all technical specification, amendment & clarification of end user and BHEL along with list of annexures mentioned above of technical enquiry specification.**

In the event of any conflict or ambiguity between the specifications for any particular equipment, system, design criteria, in the standard &/or specification, &/or interpretation of clauses in this enquiry specification &/or its various annexures, the more significant and stringent of the two requirements shall prevail and the decision of BHEL shall be final & binding, which bidder has to adhere to the same without any additional cost & time implication whatsoever to BHEL. Any other interpretation of the contract clauses (If any) in the specification & its annexures, derived by bidder shall be brought for the discussion during pre-bid stage only and once the contract is awarded, any other interpretation shall not be entertained, which are not in line with the intent of the specification/BHEL's interpretation.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XVII: Taxes and Duties

<b>17.00</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 <b>GST</b> 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 <b>exclusive</b> 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>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XVII: Taxes and Duties

<b>17.2.7</b>	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.
<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> <ol 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> <li>c. Contractor/ Vendor has submitted all the documents required for processing of bill as per contract/ purchase order/ work order.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>g. Contractor has to submit an undertaking confirming the payment of all due GST in respect of invoices pertaining to BHEL.</li> </ol>
<b>17.2.9</b>	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.
<b>17.2.10</b>	TDS as applicable under GST law shall be deducted from contractor's bill.
<b>17.2.11</b>	Contractor shall comply with the provisions of e-way bill wherever applicable. Further wherever provisions of GST Act permits, all the e-way bills, road permits etc. required for transportation of goods needs to be arranged by the contractor.
<b>17.2.12</b>	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.
<b>17.2.13</b>	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

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XVII: Taxes and Duties

	financial implication on BHEL, the financial impact thereof including interest/penalty shall be recovered from the Contactor's due payment.
<b>17.2.14</b>	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.
<b>17.2.15</b>	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.
<b>17.2.16</b>	<p><b><u>Variation in Taxes &amp; Duties:</u></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>
<b>17.3</b>	<p><b><u>Income Tax:</u></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>
<b>17.4</b>	<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.</p> <p>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</p> <p>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>

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<b>17.4</b>	<p><b><u>BOCW Act &amp; Cess Act</u></b></p> <p>BOCW Cess is not to be borne by contractor. Refer Annexure for BOCW Act &amp; Cess Act below:</p>
<b>17.5</b>	<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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<b>Annexure for BOCW :</b>	
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:	
1.	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.
2.	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.
3.	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.
4.	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.
5.	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.
6.	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.
7.	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.
8.	<ul style="list-style-type: none"> <li>i) 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 (presently 1%). BHEL shall reimburse the same upon production of documentary evidence.. However, BHEL shall not reimburse the Fee paid towards the registration of establishment, fees paid towards registration of Beneficiaries and Contribution of Beneficiaries remitted.</li> </ul>
9.	-void-

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10.	<p>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.</p>
11.	<p><b>Bidders may please note that though the quoted price is exclusive of BOCW (which will be reimbursed by BHEL as per sub-clause 8 above) , however, 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,</b></p> <p>Non-compliance to Provisions of the BOCW Act &amp; BOCW Welfare Cess Act is not acceptable. In case of any non-compliance, BHEL reserves the right to withhold any sum as it deems fit. Only upon total compliance with the BOCW Act and the discharge of total payment of Cess (in consultation with BHEL) under the BOCW Cess Act by the Contractor, BHEL shall consider refund of the amounts.</p>
12.	<p>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.</p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XVIII: Inspection & Testing and Dispatch

<b>18.00</b>	<b>Inspection &amp; Testing and Dispatch</b>
	<p>Inspection and Testing (including electrical and C&amp;I)</p> <ol style="list-style-type: none"> <li>1. Type &amp; routine test report / certificates shall include details of standard to which the tests are performed, test parameters, acceptance criteria, test set up etc. used during the testing along with the test piece details / rating and the detailed test record and final test result.</li> <li>2. All inspection, measuring and test equipment used by the contractor shall be calibrated periodically. Bidder shall maintain all relevant records of periodic calibration, instrument identification, and shall provide for inspection by bidder wherever asked specifically; bidder shall calibrate measuring / testing equipment in the presence of employer.</li> <li>3. The details of the checks to be carried out for various components (MQP) are to be submitted on priority from the date of Purchase order by bidder for customer approval. Bidder shall refer QA part of NLC NIT specification while preparing MQP of various AHP equipment.</li> <li>4. Bidder's representative has to be present during joint inspection by BHEL/BHEL's TPI/Customer/Customer's consultant of their Bought-out items at their sub-vendor's works irrespective of approved QAP</li> <li>5. Bidder to ensure correctness of all the bidder's supplied items (Cat-III items as per approved inspection category document) in every aspect meeting approved drawings/ datasheets/ specification. Based on COC provided by bidder in BHEL format, BHEL will arrange MDCC from NLC.</li> </ol>
<b>18.0</b>	<b>INSPECTION AGENCY</b>
	<p>Shall be read in conjunction with tender Technical Conditions of Contract.</p> <p>Inspection shall be carried out by end customer/ end customer'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/Customer/Owner Hold Points to BHEL/ Third Party Inspection Agency (as informed by BHEL) for arranging Customer / Owner / Consultant /Third Party participation (wherever applicable), 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> <p>During the inspection, if the equipment's are found to be not ready for inspection, all expenses incurred by BHEL /End customer /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>

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<b>18.1</b>	<b>INSPECTION AND TESTING AT CONTRACTOR'S PREMISES</b>
18.1.1	<p>Inspection Agency shall have at all reasonable times access to Seller/Contractor'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 Seller/ Contractor shall arrange for inspection, examination and testing by the Inspection Agency as if the plant/ equipment/ stores is manufactured on the Seller/ Contractor's premises.</p> <p>Inspection calls should be raised by the Seller/ Contractor on BHEL CQS Website/CQIR website link.</p> <p>Such inspection, examination and testing by itself shall not relieve the Seller/ Contractor from any obligation under the Order/ Contract.</p> <p>Non-conformance from the contract specifications shall be reported by the Seller/ Contractor .</p>
18.1.2	<p>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 Seller/ Contractor'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 Seller/ Contractor. Purchaser/ 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. Seller/Contractor 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 "Seller/ Contractor's documents, drawings and instruction manuals". In case of delay in witnessing of inspection beyond stipulated time (i.e. 7 days from the date on which the material is notified as being ready), by BHEL arising due to reasons not attributable to vendor, BHEL will extend the delivery period for such delay in carrying out inspection. If BHEL is not able to witness inspection up to 15 days then in addition to delay beyond stipulated period, extension in delivery time of 7 days' for arranging fresh inspection will be given.</p>
18.1.3	<p>Where the Order/ Contract provides for tests/ inspections at the premises or works of the Contractor or any sub-contractor, the Seller/ Contractor, 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>
<b>18.2</b>	<b>INSPECTION MEASURING AND TEST EQUIPMENT'S</b>
18.2.1	<p>Inspection Measuring and Test Equipment (IMTE) whether used by the Seller/ Contractor or subcontractor shall be calibrated, maintained and controlled. Calibration shall be valid and IMTE maintained in sound condition during usage. Bidder shall calibrate measuring / testing equipment in the presence of Owner/BHEL/Inspection agency if required.</p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XVIII: Inspection & Testing and Dispatch

18.2.2	<p>In addition to above, Contractor shall ensure the following:</p> <p>i. Measurement uncertainty is known and consistent with required measurement capability of the IMTE.</p> <p>ii. Selection of IMTEs is compatible with the necessary accuracy and precision of required measurement.</p> <p>iii. IMTEs are calibrated at the required intervals against certified equipment having known valid relationship to nationally recognized standards, at recognized calibration labs.</p> <p>iv. Calibration records are available and traceable to the particular IMTE.</p> <p>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.</p> <p>vi. IMTEs are stored, handled and preserved such that accuracy and fitness are maintained and safeguarded from adjustments.</p> <p><b>Note</b> -Owners's/BHEL decision on acceptability of the product in such cases shall be binding.</p>
18.2.3	<p>Responsibility of usage of valid and calibrated IMTEs by his sub-contractor(s) shall be of the Seller/Contractor.</p>
18.2.4	<p>In case, calibration records are required by purchaser, copies of the same shall be furnished.</p>
18.2.5	<p>Seller/ Contractor shall be fully responsible for the Quality of products supplied by sub-contractors.</p>
<b>18.3</b>	<b>MATERIAL DISPATCH CLEARANCE CERTIFICATE (MDCC)</b>
18.3.1	<p>When the tests have been satisfactorily completed at Seller/ Contractor's works, the Inspection Agency shall issue an inspection report that effect within seven (15) 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 (15) days after receipt of the test certificates by the Purchaser.</p>
18.3.2	<p>Owner/BHEL will issue MDCC to the Seller/ Contractor 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. If BHEL is not able to issue MDCC up to 15 days then in addition to delay beyond stipulated period, 7 days<sup>9</sup> additional time shall be given to the vendor to facilitate the vendor for arranging logistics arrangements.</p>
18.3.4	<p>Seller/ Contractor shall not dispatch any material before issue of MDCC by Purchaser.</p>
18.3.5	<p>Satisfactory completion of tests or issue of MDCC shall not relieve the seller / contractor from its obligations in terms of the contract provisions.</p>

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18.3.6	Seller / contractor 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.
18.3.7	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.
18.3.8	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.
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 customer 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>