

**ALL PROJECTS – TESTING
OF CONSTRUCTION
MATERIAL AT NABL LABS**

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Framework Agreement (Rate Contract) for testing of construction material, including design mix approval and allied test for various project sites of BHEL across India.

Volume - IA

BHARAT HEAVY ELECTRICALS LIMITED



TECHNICAL CONDITIONS OF CONTRACT (TCC)

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Chapter - I: PROJECT INFORMATION

1.0	INSTRUCTIONS TO BIDDERS
1.1	BHEL is intended to finalize a Framework Agreement (Rate Contract) for <i>“Testing of construction material, including design mix approval, and allied test for various projects of BHEL across India on as-and-when-required basis”</i> as per BOQ Cum Rate Schedule and Technical Specification of tender for following BHEL project sites. The project sites with executing PS-Regions are envisaged as follows: PSNR 2X800 MW NTPC Singrauli Super Thermal Power Plant, Stage-III 1X800 MW HPGCL Super Critical Expansion Unit of Deen Bandhu Chhotu Ram Thermal Power Plant, Yamuna Nagar 1X660 MW MPPGCL Amarkantak TPS, Unit-6 3X800 MW Meja STPP Stage-II PSWR 1X800 MW GSECL Ukai Ultra Super Critical, Unit - 7 2x660 MW CSPGCL Super Critical Thermal Power Project, HTPS, Korba West 2X660 MW MAHAGENCO Koradi Thermal Power Station, Units – 11 & 12 (BTG Package) 1X660 MW MPPGCL Satpura TPS, Unit-12 2X660 MW NTPC Talcher Thermal Power Station 3X800 MW NTPC Patratu Thermal Power Station - FGD Works of NSPCL Bhilai Thermal Power Station - FGD Works of NTPC Korba Thermal Power Station - FGD Works of NTPC Ramagundam Thermal Power Station - ESP R&M Works of NTPC Ramagundam Thermal Power Station - FGD Works of NTPC Mauda Thermal Power Station PSER 2X800 MW NTPC Lara Super Thermal Power Station 1X800 MW NTPC Sipat Super Thermal Power Project, Stage-III 2X800 MW DVC Koderma Super Thermal Power Plant 2X660 MW DVC Raghunathpur Thermal Power Station, Phase -II - LSTK-1 & LSTK-2 For Coal Gasification Unit for Coal to Ammonium Nitrate Plant, Lakhanpur Area, Jharsuguda, Odisha PSSR 3X800 MW NLC Talabira Thermal Power Project

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Chapter - I: PROJECT INFORMATION

	2. 1X800 MW SCCL Singareni Thermal Power Project, Stage-II 3. 1X800 MW NTPC Darlipali Super Thermal Power Project, Stage – II 4. 5X800 MW TGGENCO Yadadri Thermal Power Station 5. FGD Works of TGGENCO Kothagudem Thermal Power Station 6. 2X660 MW TNPGCL Udangudi Thermal Power Plant 7. 1X660 MW TNPGCL Ennore Thermal Power Station 8. 3X800 MW Telangana STPP Stage-II (BTG Package) In addition to the above projects, the scope of work may also be executed in any other project site under execution by BHEL across India, in near future within the original & extended Framework Agreement period.
1.2	Circumstances under which the rate contract shall be executed: 1. Finalization of design mix approval, third party testing and testing of other construction material as per existing contractual provision. 2. Any change in source of raw material necessities re-testing and approval of design mix and associate construction material prior to their use at project sites. 3. Specific work which is not described or not covered under any existing contract or when it arises as an unforeseen requirement for the project.
1.3	BHEL is presently executing multiple projects at various locations across India, as listed above, wherein testing of construction materials, design mix approvals, revalidation of design mixes and allied laboratory services are required at different stages of project execution for the reasons specified under Clause 1.2. The exact scope, quantities and type of testing, cannot be accurately forecasted in advance, as these are dependent upon project progress, site readiness and customer requirements. At the time of issuance of Work Order for a particular project, tentative quantity in 'BOQ cum rate schedule for the project' along with Completion Schedule and other details as per LOA/Framework Agreement shall be communicated to the agency.

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Chapter – II: SCOPE OF WORKS

2.0	SCOPE OF WORKS:
2.1	Testing of construction material, including design mix approval and allied test for various projects of BHEL across India on as-and-when-required on item rate basis as per BOQ CUM RATE SCHEDULE.
2.2	The scope of work shall include carrying out testing, inspection, sampling, design mix preparation, mix validation, quality assurance testing, field investigations and allied laboratory services for civil construction materials used at various project sites of Bharat Heavy Electricals Limited (BHEL) across India. The services shall broadly include, but not be limited to: 1. Concrete Related Services a) Design Mix Preparation and Approval for various grades of concrete including Geopolymer Concrete. b) Revision of Design Mix due to change in source of cement, aggregate, admixture, water or any other constituent material. c) Validation trials and optimization of concrete mix proportions. d) Laboratory testing of fresh and hardened concrete. e) Core cutting and testing, wherever required. f) Special concrete testing including permeability, RCPT, shrinkage, modulus of elasticity, water absorption, etc. 2. Cement Testing Testing of cement as per relevant IS codes including physical, chemical and strength parameters. 3. Aggregate Testing Testing of coarse and fine aggregates including grading, specific gravity, water absorption, impact value, crushing value, flakiness index, elongation index, deleterious materials, alkali reactivity and other relevant tests. 4. Water Testing Chemical and physical testing of water used for construction activities. 5. Brick, Block and Masonry Unit Testing Testing of clay bricks, fly ash bricks, AAC blocks, concrete blocks and other masonry units.. 6. Grout and Mortar Testing Testing of grout, mortar and allied materials. 7. Bitumen and Pavement Materials Testing of bitumen, aggregates and pavement construction materials wherever applicable.

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	8. Specialized Tests Any additional tests required by BHEL, Customer, Consultant, Statutory Authorities or applicable Standards during execution of projects.
2.3	The contract shall be a Framework Agreement / Rate Contract. No minimum quantity of work is guaranteed. Actual requirement of tests shall vary from project to project and shall be governed by site conditions, project specifications, customer requirements and applicable standards. Project specific Work Order shall be issued to the successful bidder which contains/includes area of work/ activities, BOQ Cum Rate Schedule, Time Schedule, other details as per LOA/Frame Work Agreement, etc.
2.4	The engagement of Tools & Plants (T&Ps) and manpower for the activities covered under the awarded scope of work shall be deemed included and will not be paid separately.
2.5	<u>Eligibility of Laboratory</u> The Successful Bidder/Agency shall satisfy the following minimum eligibility requirements throughout the duration of the Framework Agreement as well as during the execution of all Work Orders issued thereunder: a) The Bidder shall be a testing laboratory duly accredited by the National Accreditation Board for Testing and Calibration Laboratories (NABL) in accordance with ISO/IEC 17025, or any other accreditation body recognized by BHEL, for the relevant scope of testing. b) The Bidder shall ensure that the accreditation remains valid, effective and applicable for the relevant scope of work throughout the validity of the Framework Agreement, including any extension thereof and during the execution of all Work Orders. Any suspension, withdrawal, reduction in scope or expiry of accreditation shall be immediately intimated to BHEL in writing. c) The Bidder shall possess adequate laboratory infrastructure, calibrated testing equipment, qualified technical personnel, quality management systems and other necessary resources to carry out the services in accordance with the applicable Indian Standards (IS), relevant international standards, project specifications and the requirements of this Contract. d) The Bidder shall have the organizational capability and necessary logistics to provide testing, inspection, sampling, design mix approval, field investigations and allied laboratory services at any BHEL project site across India within the time schedule specified in the respective Work Order. e) All testing equipment and measuring instruments used for execution of the Contract shall be periodically calibrated by NABL-accredited calibration laboratories or other agencies acceptable to BHEL and valid calibration certificates shall be maintained and produced whenever called for. f) BHEL, its Customer, Consultant or their authorized representatives shall have the right, at any time during the duration of the Contract, to inspect, audit and verify the Bidder's

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	laboratory facilities, testing equipment, calibration records, quality management system, accreditation status, technical personnel and related infrastructure. The Bidder shall provide all necessary assistance and access for such inspection without any additional cost to BHEL. Failure to comply with the above requirements or loss of the prescribed accreditation during the contract period shall constitute a material breach of the Contract and shall entitle BHEL to suspend allocation of further Work Orders, reject the test reports, or take such other contractual action as deemed appropriate, including termination of the Framework Agreement. g) All tests specified in the respective BOQ Item Descriptions, Technical Specifications, relevant IS Codes and Contract Documents shall be carried out in the bidder's own laboratory, which shall be adequately equipped to perform the required tests. In the event that any specified test cannot be conducted in the bidder's laboratory for any reason whatsoever, the bidder shall, at its own cost, arrange for such testing to be carried out in a NABL-accredited laboratory or any other laboratory specifically approved by BHEL, wherever applicable. The bidder shall be solely responsible for the transportation of samples, testing charges, coordination with the external laboratory, and timely submission of authenticated test reports to BHEL. No additional payment, reimbursement, extension of time, or claim of any nature whatsoever shall be admissible on this account. The responsibility for compliance with the specified testing requirements shall remain entirely with the bidder, irrespective of whether the tests are conducted in the bidder's own laboratory or through an external laboratory.
2.6	<u>Site Mobilization/Visit:</u> Normally, the test specimens shall be collected, packed and dispatched by BHEL to the Contractor's laboratory for carrying out the required testing as specified in the respective Work Order. However, for tests that are required to be conducted at site, field investigations, inspections, witnessing of sampling/testing, concrete trial mixes, Non-Destructive Testing (NDT), or any other activity where the physical presence of the Contractor's representative is indispensable, the Contractor shall deploy suitably qualified personnel, along with the necessary testing equipment, instruments and accessories, to the designated BHEL Project Site within the time stipulated by BHEL. The Contractor shall ensure timely mobilization of the required manpower and equipment anywhere in India to meet the project requirements. The cost of mobilization of testing equipment and accessories required for execution of field testing shall be deemed to be included in the quoted item rates unless otherwise specifically provided in the Contract. The travel and outstation expenses of the Contractor's representative(s), where such site visit is specifically authorized by BHEL, shall be reimbursed as under: a) Travelling Expenses i. Actual to-and-fro rail fare, limited to AC Two-Tier Class by the shortest route, between the location of the Contractor's laboratory and the designated Project Site, shall be reimbursed against submission of original tickets, receipts or other documentary evidence. ii. Where travel by road is undertaken with the prior approval of BHEL, reimbursement

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	shall be limited to the equivalent AC Two-Tier rail fare for the corresponding distance or the actual amount incurred, whichever is lower. iii. A daily incidental allowance of Rs.250/- (Rupees Two Hundred Fifty only) per person shall be reimbursed for outstation visits. The allowance shall be calculated based on the duration of stay at the Project Site as under: • Up to 6 hours: 25% of the daily allowance. • More than 6 hours and up to 12 hours: 50% of the daily allowance. • More than 12 hours: 100% of the daily allowance. b) Accommodation i. Wherever night stay is required, BHEL shall endeavour to provide suitable accommodation at the Project Site or nearby. ii. In the event BHEL is unable to provide accommodation, the Contractor shall be reimbursed lodging charges up to Rs.1,500/- (Rupees One Thousand Five Hundred only) per person per night against submission of hotel bills/invoices. iii. Government taxes and mandatory service charges included in the hotel invoice shall also be reimbursable. However, expenses towards food, room service, laundry, telephone, minibar and other personal or incidental expenses shall not be reimbursed. c) Local Transportation Where night stay is involved, BHEL shall arrange transportation between the place of accommodation and the Project Site. In case such transportation cannot be arranged by BHEL, the Contractor shall arrange the same and shall be reimbursed the actual cost against documentary evidence, subject to a maximum reimbursement of Rs.12/- per kilometre. d) General i. All site visits shall be undertaken only upon written instructions or approval of BHEL. ii. The Contractor shall deploy competent personnel carrying valid identity cards and shall comply with all safety regulations, security procedures and statutory requirements applicable at the Project Site. iii. The Contractor shall mobilize all testing instruments, accessories, consumables and ancillary equipment necessary for carrying out the specified field tests. No separate payment shall be admissible towards mobilization, demobilization or usage of such equipment unless expressly provided elsewhere in the Contract.
2.7	<u>Applicable Standards</u> All testing shall be carried out strictly in accordance with: • Latest editions of relevant Indian Standards (IS) • BIS Codes • Project Specifications • Customer Specifications • CPWD Specifications

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	• MoRTH Specifications (where applicable) • Relevant ASTM, BS, EN or other international standards wherever specifically required In case of conflict, the more stringent requirement shall prevail.
2.8	GENERAL
2.8.1	<u>Sampling</u> a) Samples may be collected by BHEL/site representatives, laboratory personnel or jointly, as instructed by BHEL. b) Proper sample identification and traceability shall be maintained. c) Chain-of-custody records shall be maintained wherever required. d) BHEL reserves the right to witness sampling and testing activities.
2.8.2	<u>Test Reports</u> a) Test reports shall be issued in approved formats. b) Reports shall clearly indicate applicable standards, test methods and observations. c) Reports shall bear authorized signatures and accreditation details wherever applicable. d) Reports shall be submitted in both soft and hard copies (02 Nos). e) Raw data shall be produced whenever demanded by BHEL.
2.8.3	<u>Turnaround Time</u> The Contractor shall complete the testing activities and submit the test reports/design mix approvals within the timelines specified below, unless otherwise stipulated in the respective Work Order. The timelines shall be reckoned from the date of receipt of complete test specimens at the Contractor's laboratory or from the date of completion of field testing/site investigation, as applicable. Concrete Mix Design: • Completion of trial mix and casting of cubes shall be within 7 days from receipt of samples. Report shall be submitted within 7 days from specified age of testing. Routine Material Testing and Submission of Report: • Within 3 days from receipt of samples. Urgent/Priority Testing and Submission of Report: • Within 24 to 48 Hours, where specifically instructed by BHEL in the Work Order or through written communication, subject to the nature of the test and availability of test specimens. Non-Destructive Testing (NDT) and Field Testing: • Report shall be submitted within 3 days from completion of field testing. The above timelines are indicative maximum limits and shall be adhered to by the Contractor under normal operating conditions. However, where the applicable Indian Standard (IS), ASTM or other approved specification prescribes a mandatory curing,

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	conditioning, observation or testing period, the turnaround time shall be deemed to commence only after completion of such mandatory period. In case of project-specific requirements, BHEL may stipulate different turnaround timelines in the respective Work Order and the Contractor shall comply with such timelines without any additional financial implication unless otherwise specifically agreed.
2.8.4	<u>Quality Assurance</u> The Contractor shall establish, implement and maintain an effective Quality Management System (QMS) conforming to the requirements of ISO/IEC 17025 and the applicable NABL accreditation criteria throughout the duration of the Framework Agreement. The Contractor shall ensure that all testing, sampling, inspection, calibration, reporting and related activities are carried out in accordance with the applicable Indian Standards (IS), relevant international standards, project specifications and the requirements of this Contract. The Contractor shall maintain complete and up-to-date records relating to quality assurance, including but not limited to accreditation certificates, calibration records of testing equipment, quality control procedures, test registers, raw test data, observation sheets and traceability records. Such records shall be preserved for a minimum period of three (3) years after completion of the respective Work Order or such longer period as may be specified under the Contract or applicable statutory provisions. BHEL/ BHEL's Customer/ Consultant or their authorized representatives shall have the right, at any time during the duration of the Framework Agreement or execution of any Work Order, to: a) Audit and inspect the Contractor's laboratory facilities, quality management system and testing procedures. b) Verify the validity of NABL accreditation, calibration certificates, maintenance records and competency of technical personnel. c) Witness sampling, testing, calibration or any other activity related to the execution of the Contract. d) Examine test records, calculations, observation sheets, equipment logs and supporting documentation forming the basis of the issued test reports. e) Draw parallel samples and/or have the same specimens tested by any independent laboratory, including another NABL-accredited laboratory, for verification of the reported results. The Contractor shall provide all necessary cooperation, access to facilities, documents and technical assistance during such inspections, audits or verifications without any additional cost to BHEL. In the event of any discrepancy, inconsistency, manipulation of records, use of uncalibrated equipment, non-compliance with applicable standards or any deficiency attributable to the Contractor, BHEL shall have the right to reject the test reports, direct re-testing at the Contractor's cost, withhold payments, suspend allocation of further Work Orders, recover consequential losses and/or take any

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	other action as provided under the Contract, including termination of the Framework Agreement, wherever considered appropriate.
2.8.5	<u>Calibration of Equipment</u> All instruments and testing equipment shall be calibrated through authorized agencies. Valid calibration certificates shall be maintained and produced whenever demanded by BHEL. Tests conducted using expired or uncalibrated equipment shall be liable for rejection.
2.8.6	<u>Confidentiality</u> All data, reports, drawings, specifications and project information shall be treated as confidential. The contractor shall not disclose any project-related information without prior written approval of BHEL.
2.8.7	<u>Safety Requirements while visiting to the site</u> The contractor shall comply with all safety requirements applicable at project sites. Personnel shall use appropriate PPE which shall be issued by BHEL free of cost on returnable basis and comply with site safety regulations.
2.8.8	<u>Performance Monitoring</u> The performance of the Contractor shall be continuously monitored and evaluated by BHEL throughout the duration of the Framework Agreement and during the execution of individual Work Orders. Such evaluation shall be carried out based on the Contractor's overall performance, including but not limited to the following parameters: a) Compliance with the turnaround time and completion schedule specified in the respective Work Order. b) Accuracy, reliability and consistency of test results, design mix approvals and technical reports. c) Compliance with the applicable Indian Standards (IS), relevant international standards, project specifications, NABL requirements and other contractual provisions. d) Responsiveness in mobilization of personnel, equipment and resources to meet site-specific and project requirements. e) Availability and validity of laboratory accreditation, calibration of equipment and deployment of qualified technical personnel. f) Quality of documentation, reporting, traceability of test records and timely submission of reports. g) Cooperation with BHEL, Customer, Consultant and other agencies during execution of the services. h) Feedback received from Project Sites regarding the Contractor's technical competence, quality of services, responsiveness and overall performance. BHEL may periodically review the Contractor's performance and communicate any deficiencies or non-conformities observed during execution of the Contract. The Contractor shall take immediate corrective and preventive actions and submit a compliance report within the period specified by BHEL.

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	In the event of persistent unsatisfactory performance, repeated delays, submission of incorrect or unreliable test reports, loss or suspension of the required accreditation, failure to maintain the prescribed quality standards or any other material breach of the Contract, BHEL shall, after giving the Contractor a reasonable opportunity to explain and rectify the deficiencies, have the right to take one or more of the following actions: i. Issue warning or advisory letters. ii. Reduce or temporarily suspend allocation of further Work Orders under the Framework Agreement. iii. Withhold payments relating to the affected services until satisfactory compliance is achieved. iv. Require re-testing or re-performance of the services at the Contractor's own cost. v. Recover any loss, damage or additional expenditure incurred by BHEL due to the Contractor's default, in accordance with the provisions of the Contract. vi. Suspend or terminate the Framework Agreement, in whole or in part, in accordance with the applicable terms and conditions of the Contract. The decision of BHEL regarding the Contractor's performance evaluation and the consequential contractual action shall be final and binding, subject to the provisions relating to dispute resolution under the Contract.
2.8.9	BHEL's Customer may depute their representative for checking and supervision of important stages of testing. The contractor shall be required to provide all facilities for inspection of works at no extra cost to BHEL. Any defect in quality of work or deviations from specifications pointed out during such inspection shall be made good by the contractor in the same way as if pointed out by the BHEL Engineer, without any cost implication to BHEL.
2.8.10	The complete works shall be carried out as per BOQ cum Rate schedule. If any work covered in the scope of contract cannot be executed using items available in BOQ, Extra Works/Supplementary Items shall be made and rates for such items shall be worked out as per GCC clause 2.15 and 2.16. However, contractor shall be bound to execute all the works under the scope of the contract and decision whether an extra item is applicable or not, shall be taken by BHEL Engineer which will be binding on the contractor.
2.8.11	Deliverables: • Test reports: As per IS standard with traceability and NABL Logo wherever applicable • Material evaluation and concrete Mix design reports including trial mix details and final mix recommendation based on Trial mixes and optimization, Durability considerations, Cost optimization, Site-specific material evaluation and adjustments • Condition assessment reports including NDT results, analysis and interpretation results, Core testing, diagnosis and prognosis of concrete deterioration, repair and rehabilitation recommendations • Conducting training on relevant topic as per requirement and providing Training reports & training materials at no additional cost to BHEL.

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2.8.12	Marking and Packing: The following to be stamped or written in the package. (a) Testing facility Name, (b) Vendor Code, (c) Work Order (d) Quantum and weight and (e) Item description
2.8.13	Transportation & Freight Charges: a) All road dispatches shall be through the carriers. b) Freight charges shall be borne by respective BHEL site/ PS regions. Any charges related to the transportation of material till Testing facility is to be borne by the respective BHEL site/PS regions.
2.9	HIERARCHY:
2.9.1	In case of any conflict/ deviations amongst various documents, the order of precedence shall be as follows: • Latest editions of relevant Indian Standards (IS) • BIS Codes • Project Specifications • Customer Specifications • CPWD Specifications • MoRTH Specifications (where applicable) • Relevant ASTM, BS, EN or other international standards wherever specifically required In case of conflict, the more stringent requirement shall prevail.

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Chapter – III: TIME SCHEDULE

3.0	TIME SCHEDULE: Duration of Framework Agreement for “Testing of construction material, including design mix approval, and allied test at various project sites of BHEL across India on as-and-when-required basis” shall be Twenty-Four (24) Months from date of issuance of LOA. However, this rate contract may further be extended for a maximum period of another Three (03) Months at the same rate, terms and conditions at the discretion of BHEL.
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Chapter – IV: TERMS OF PAYMENT

4.0	TERMS OF PAYMENT:
4.1	The contractor shall submit his RA bills with all the details required by BHEL covering measurement of test conducted in all respects.
4.1.1	A) For MSME suppliers: 100% payment (excluding GST) for running bills will be paid through TReDS such as Receivable Exchange of India Limited (RXIL), M1xchange, Invoicemart, C2treds, DTX, etc. as per extant guidelines after submission and acceptance of following documents: i) GST Complied Invoice of the work done ii) Test Reports iii) Work Order-wise Test Summary iv) Site Visit Records (wherever applicable) v) Travel reimbursement documents (wherever applicable) Note: In respect of procurement of goods or services from Micro, Small and Medium enterprises (MSMEs), the settlement of invoice shall be only through any of the TReDS platform ((i.e RXIL, M1xchange, Invoicemart, KReDX, C2FO), authorised by the Reserve Bank of India. Such MSME suppliers to select their preferred TReDS platform before award of contract so that the data is captured in the Order /Contract database of the Unit. They also will have the option to change the TReDS platform from the drop-down menu on Suvidha portal of BHEL, at the time of invoice submission. Wherever the Trade Receivable is accepted by BHEL, the same shall be validated by the Unit on the respective TReDS platform selected by the supplier. The routing of invoices through the TReDS platform shall not be construed as mandating discounting of such invoices and the MSMEs supplier shall have the option to avail or not avail financing or discounting of its receivables on the TReDS platform. In case discounting is not availed by the supplier on TReDS, the trade receivables will be paid through TReDS platform within 45 days after submission & acceptance of above-mentioned documents at Sl. No. A. B) For Non-MSE suppliers: 100% of payment (excluding GST) for running bills will normally be released within 60 days of after submission & acceptance of above-mentioned documents at Sl. No. A.
4.2	Price Variation Compensation: In order to take care of variation in cost of material on either side, due to variation in the index of LABOUR, & ALL COMMODITIES, Price Variation Formula as described herein shall be applicable.
4.2.1	85% component of Award Value shall be considered for PVC calculations and remaining 15% shall be treated as fixed component. The basis for calculation of price variation in each category, their component, Base Index, shall be as under:

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4.2.2	Sl. No.	Category	Index	Percentage Component (K)	
	1	LABOUR (ALL CATEGORIES)	MONTHLY ALL-INDIA AVERAGE CONSUMER PRICE INDEX NUMBERS FOR INDUSTRIAL WORKERS' published by Labour Bureau, Ministry of Labour and Employment, Government of India	65%	
	2	ALL COMMODITIES	Name of Commodity: All Commodities Type: Individual Commodity (See Note)	20%	
4.2.3	NOTE: As per the 'MONTHLY WHOLE SALE PRICE INDEX' for the respective Commodity and Type, published by Office of Economic Adviser, Ministry of Commerce and Industry, Government of India. (Website: eaindustry.nic.in). Revisions in the index or commodity will be re-adjusted accordingly.				
4.2.4	Payment/recovery due to variation in index shall be determined on the basis of the following notional formula in respect of the identified COMPONENT ('K') viz LABOUR, ALL COMMODITIES. $P = K \times R \times (X_n - X_o) / X_o$ Where, P = Amount to be paid/recovered due to variation in the Index for LABOUR, ALL COMMODITIES. K = Percentage COMPONENT ('K') applicable for LABOUR, ALL COMMODITIES. R = Amount of supplies for the billing month (Excluding Taxes and Duties if payable extra) X_n = Revised Index for LABOUR, ALL COMMODITIES for the billing month under consideration X_o = Index for LABOUR, ALL COMMODITIES as on the Base date				
4.2.5	PVC will be payable for items supplied including quantity variation of BOQ items under originally awarded contract.				
4.2.6	Base date shall be calendar month of the 'last date of submission of Tender'.				
4.2.7	The contractor shall furnish necessary monthly bulletins in support of the requisite indices from the relevant websites along with his Bills.				
4.2.8	The contractor will be required to raise the bills for price variation payments for each RA Bill/(s) irrespective of the fact whether any increase/decrease in the index for relevant categories has taken place or not. In case there is delay in publication of bulletins (final				

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	figure), the provisional values as published can be considered for payments and arrears shall be paid/recovered on getting the final values.
4.2.9	The total amount of PVC shall not exceed 15% of the cumulatively executed Work Order value. Executed Work Order value for this purpose is exclusive of PVC except items due to quantity variation.

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Chapter – V: TAXES AND DUTIES

5.0	TAXES & DUTIES
5.1	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 & services consumed and output goods & 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. However, provisions regarding GST on output supply (goods/service) and TDS/TCS as per Income Tax Act shall be as per following clauses.
5.2	GST (Goods and Services Tax)
5.2.1	GST as applicable on output supply (goods/services) are excluded from contractor's scope; therefore, contractor's price/rates shall be exclusive of GST. Reimbursement of GST is subject to compliance of following terms and conditions. BHEL shall have the right to deny payment of GST and to recover any loss to BHEL on account of tax, interest, penalty etc. for non-compliance of any of the following condition.
5.2.2	The admissibility of GST, taxes and duties referred in this chapter or elsewhere in the contract shall be limited to direct transactions between BHEL & its Contractor. BHEL shall not consider GST on any transaction other than the direct transaction between BHEL & its Contractor.
5.2.3	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.
5.2.4	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.
5.2.5	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.
5.2.6	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 & 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.
5.2.7	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.

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5.2.8	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: - - Supply of goods and/or services have been received by BHEL. - Original Tax Invoice has been submitted to BHEL. - Contractor/ Vendor has submitted all the documents required for processing of bill as per contract/ purchase order/ work order. - 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. - 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. - 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. - Contractor has to submit an undertaking confirming the payment of all due GST in respect of invoices pertaining to BHEL.
5.2.9	Any financial loss arises to BHEL on account of failure or delay in submission of any document as per contract/purchase order/work order at the time of submission of Tax invoice to BHEL, shall be deducted from contractor's bill or otherwise as deemed fit.
5.2.10	TDS as applicable under GST law shall be deducted from contractor's bill.
5.2.11	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.
5.2.12	Contractor shall be solely responsible for discharging his GST liability according to the provisions of GST Law and BHEL will not entertain any claim of GST/interest/penalty or any other liability on account of failure of contractor in complying the provisions of GST Law or discharging the GST liability in a manner laid down thereunder.
5.2.13	In case declaration of any invoice is delayed by the vendor in his GST return or any invoice is subsequently amended/alterd/deleted on GSTN portal which results in any adverse financial implication on BHEL, the financial impact thereof including interest/penalty shall be recovered from the Contactor's due payment.

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5.2.14	Any denial of input credit to BHEL or arising of any tax liability on BHEL due to non-compliance of GST Law by the Contractor in any manner, will be recovered along with liability on account of interest and penalty (if any) from the payments due to the Contactor.
5.2.15	In the event of any ambiguity in GST law with respect to availability of input credit of GST charged on the invoice raised by the contractor or with respect to any other matter having impact on BHEL, BHEL's decision shall be final and binding on the contractor.
5.2.16	<u>Variation in Taxes & Duties:</u> 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. 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 contactor only and within the contractual delivery period only. 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.
5.3	<u>Income Tax:</u> TDS/TCS as applicable under Income Tax Act, 1961 or rules made thereunder shall be deducted/collected from contractor's bill.

5.4 BOCW Act & Cess Act

5.4.1 BOCW Cess is not to be borne by contractor. Refer Annexure-I for BOCW Act & Cess Act.

Annexure-I:	
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

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	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.	It shall be the responsibility of the sub-contractor as employer to make payment/deposit of applicable cess amount on the extent of work involving building or construction workers engaged by the sub-contractor within a period of one month from the receipt of payment. It shall also be responsibility of the Contractor to furnish BHEL on monthly basis, Receipts/ Challans towards Deposit of the Cess under the Building and other Construction Workers' Welfare Cess Act, 1996 and the rules made thereunder along with following statistics: i) Number of Building Workers employed during preceding one month. ii) Number of Building workers registered as Beneficiary during preceding one month. iii) Disbursement of Wages made to the Building Workers for preceding wage month. iv) Remittance of Contribution of Beneficiaries made during the preceding month
9.	BHEL shall reimburse the contractor the Cess amount deposited for the purposes of the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act,

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	1996 under the Building and other Construction Workers’ Welfare Cess Act, 1996 and the rules made thereunder. However, BHEL shall not reimburse the Fee paid towards the registration of establishment, fees paid towards registration of Beneficiaries and Contribution of Beneficiaries remitted.
10.	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.
11.	Bidders may please note that though the quoted price is exclusive of BOCW (which will be reimbursed by BHEL as per sub-clause 9 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, BHEL reserves the right to deduct the applicable cess (1%) on the contract value and penalty (if any, imposed by Cess Authorities) from the payables on account of non-compliance.
12.	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.

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Chapter-VI: BILL OF QUANTITIES AND % WEIGHTAGE OF INDIVIDUAL ITEMS

6.0	BILL OF QUANTITIES AND % WEIGHTAGE OF INDIVIDUAL ITEMS	
6.1.	This Chapter consists of Part A & Part B of Volume II “Price bid”:	
	<u>CONTENTS</u>	
	Description	Remarks
	PART A: Instructions to the Bidders	Instructions
	PART B: % weightage for amount of individual items of Schedule of quantity	BOQ Cum Rate Schedule
	PART C: Quantities Breakup of all three Packages	Splitting of 3 Packages Quantities in the ratio of 50:30:20.
	PART D: Total Price for entire scope of Work	This part is implanted in the E-Procurement portal entitled as “Part-D of Vol-II Price Bid”.
<u>Part A:</u>	<u>Instructions to the Bidders</u>	
1.	<u>Bidders to quote Total Price for the entire scope of work (i.e. 100% Quantity of BOQ cum Rate Schedule) in Rupees in VOL II PRICE BID at BHEL E-procurement Portal.</u> Any other entry elsewhere in the offer of the bidder shall be treated as Null and Void. The total value shall be automatically calculated on E-portal.	
2.	BHEL has fixed the weightages as in “Part-B” for the amount of individual items of BOQ Cum Rate Schedule w.r.t. the total price of Price Bid Vol-II.	
3.	Based on the pre-fixed weightages, amount of individual items shall be derived by BHEL. This amount shall not be rounded off.	
4.	Based on the quantities of individual item and the amount arrived in Sl. No. 3 above, item rate of individual items shall be derived by BHEL. This item rate shall be rounded off up to three decimal places and shall be used to calculate the total amount of an item.	
5.	Bidders to note that entire scope of work (i.e. 100% Quantity of BOQ cum Rate Schedule) shall be split into Three (03) packages in the Ratio of 50% of total Qty (Package-I) : 30% of total Qty (Package-II) : 20% of total Qty (Package-III) and each package constitute separate and independent rate contract as per Clause 36.0 of Notice Inviting Tender (NIT).	
6.	Bidders to note that this is an ‘Item rate contract’. Payment shall be made for the actual quantities of work executed at the Unit rate arrived at as per serial no. 5 above.	
<u>PART B:</u>	Weightage for amount of individual items of BOQ CUM RATE SCHEDULE w.r.t. the total price (as quoted by the bidder in “Part D of Vol-II-Price Bid”)- attached separately.	
<u>PART C:</u>	Splitting of 3 Packages Quantities in the ratio of 50:30:20. - attached separately.	