



TECHNICAL CONDITIONS OF CONTRACT (TCC)

Engagement of a consulting firm for
Project Management Consultancy for
efficient execution

Package-I: (Three Projects)

- (a) 1X800 MW Yamunanagar Project,
- (b) 2X660 MW DVC Raghunathpur Project
- (c) 2x660MW Koradi TPS BTG on EPC

Package-II: (Two Projects)

- (e) 1X800 MW UKAI
- (f) 2X660 MW CSPGCL Korba West

BHARAT HEAVY ELECTRICALS LIMITED



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CHAPTER-I: Project Information

1.1 This contain project information of Five projects namely 2X660 MW DVC Raghunathpur, 1X800 MW DBCRTPP Yamunanagar , 2x660MW Koradi TPS BTG on EPC, 1X800 MW GSECL Unit#7 UKAI, 2X660 MW CSPGCL Korba West Project.

1.2 Project Information: 2X660MW RAGHUNATHPUR THERMAL POWER STATION (RTPS) PHASE-II

Sl. No.	Description	Details
1	Project Title	2X660MW RAGHUNATHPUR THERMAL POWER STATION (RTPS) PHASE-II
2	Customer	Damodar Valley Corporation (DVC)
3	Location	<p>The Raghunathpur Thermal Power Station project is located near Raghunathpur sub-division of Purulia District, West Bengal. The approach road is the Neamatpur-Purulia State Highway– 7 Km from the site.</p> <p>The Site is located at latitudes of 23°37'20" N and longitudes of 86°39'50" E respectively.</p> <p>Town/City Nearest Town Raghunathpur- About 7 Km District Head Quarters Purulia -About 16 Km Nearest Major Town Adra- About 19 Km</p>
4	Nearest Airport	<p>The nearest airport is Kazi Nazrul Islam (RDP) Airport, Durgapur which is about 90km from site.</p> <p>Another airport is Birsa Munda Airport, Ranchi, Birsa Munda airport, Ranchi, Jharkhand 834002 at about 180 km from site.</p>
5	Access by Road/Major Cities	<p>The approach road is the Neamatpur-Purulia State Highway is 7 Km from the site.</p> <p>Sanka Railway Station on Adra-Bhajudih Broad Gauge line of S.E. Railway is 11 Km from site.</p> <p>Another is Adra Junction, Adra, West Bengal 723121, approx. 20km from site.</p>
8	Wind Speed	As per Technical Specification of DVC, Section-VI, Part-B, Sub-Section-D-1-12 (D), Civil Works Wind Design Criteria. (Copy Attached)

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CHAPTER-I: Project Information

1.3 Project Information: 1X800 MW DBCRTPP Yamunanagar

Sl. No.	Title	Description
1	Project Title	1X800 MW DEEN BANDHU CHHOTU RAM THERMAL POWER PLANT, HPGCL, YAMUNA NAGAR, HARYANA.
2	Owner/Customer	HARYANA POWER GENERATION CORPORATION LIMITED, PANCHKULA, HARYANA.
3	Owner's Consultant	DESEIN PRIVATE LIMITED, NEW DELHI
4	Nearest Airport	The nearest major airport is Chandigarh at a distance of about 110 km from project site.
5	Access by Road/Rail/Major Cities	Nearest National Highway to the Project Site is NH- 344. The nearest major town is Yamuna Nagar, which is at a distance of about 08 Km from Project Site. The nearest railway station is Kalanaur at 2Km.

1.4 Project Information: Main Plant (BTG) Package for Koradi TPS Unit-11 & 12 (2x660MW) on EPC basis

Sl. No.	Description	Details
1	Project Title	Main Plant (BTG) Package for Koradi TPS Unit-11 & 12 (2x660MW) on EPC basis
2	Customer	MAHAGENCO LTD.
3	Location	Koradi of Nagpur District in Maharashtra. "Koradi Thermal Power Station" which is situated at 11 Km from Nagpur town near village Koradi close to National Highway (NH-69) connecting Nagpur and Bhopal Latitude - 21° 14' 3" N Longitude - 79° 5' 48" E Nearest major town is Nagpur (11 kms)
4	Nearest Airport	Nagpur Airport
5	Access By Road/Major Cities	From Nagpur-Bhopal National Highway (NH-69)

1.5 Project Information: 1X800 MW GSECL Unit#7 UKAI

Sl. No.	Description	Details
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CHAPTER-I: Project Information

1	Project Title	1X800 MW GSECL Unit#7 UKAI
2	Customer	Gujarat State Electricity Corporation Limited
3	Location	The project is located in Tapi district of Gujarat state in India. The geographical location of UTPS is at Latitude of 21°12'36.5"North and Longitude of 73° 33'26.3" East.
4	Nearest Airport	The nearest Airport is Surat, which is about 93 km from the site.
5	Access by Road/Major Cities	<p>The Project site is connected by roads vide Hajira – Paradip Port NH-53 highway at a distance of 10 km from Songadh.</p> <p>a) Connecting National Highway (NH) NH-53, Hazira-Pardip port (Surat-Kolkata)</p> <p>b) Distance of the Project Site from NH. 8 KM</p> <p>c) Description of Road Connecting Project Site - Pakka Road, SH-174, Plant Road, Vadi Ashram Road.</p>
6	Rail Link	The project site is located at a distance of about 10 km from Ukai - Songadh Railway Station. Established rail routes are already available and hence the transportation of materials to the project site will not be a major constraint.

1.6 Project Information: 2X660 MW CSPGCL Korba West Project.

Sl. No.	Description	Details
1	Project Title	2x660 MW CSPGCL Korba West HTPS
2	Customer	Chhattisgarh State Power Generation Company Limited (CSPGCL)
3	Location	<p>The Hasdeo Thermal Power Station (HTPS) project is located at Korba Village in Korba District of Chhattisgarh.</p> <p>Latitude – 22°24'38.5" N Longitude – 82°41'39" E,</p> <p>Nearest major town is Korba (10 kms)</p>
4	Nearest Airport	The nearest commercial airport is Swami Vivekanand Airport, Raipur which is at a distance of 214 Kms from the Project site

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CHAPTER-I: Project Information

5	Access Road/Major Cities by	Access to the Project Site by Road is through State Highway No. 39 from Raipur and Bilaspur.
6	Rail Link	Nearest railway station is Korba railway station, located on Gevra Road – Champa section under Bilaspur railway division of South-East Central Railway zone

1.7	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.
1.8	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.
1.9	The Consultant, in the event of this work awarded to him, shall keep posted an authorized, responsible officer with valid Power of Attorney for the purpose of the contract billing. Any order or instructions of the 'Engineer' or his duly authorized representative, communicated to the Consultant 's representative at site office will be deemed to have been communicated to the Consultant at his legal address.
1.10	No claim will be entertained by BHEL on ground of lack of knowledge and the Consultant's rates shall be deemed to have taken this into account.

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CHAPTER-II: Scope of Work

2.1 About BHEL:

BHEL is one of the largest engineering and manufacturing companies of its kind in India engaged in design, engineering, construction, testing, commissioning and servicing of a wide range of products and services including Thermal power plant. BHEL has Pan India presence with its Manufacturing Units in 1. Electronics Division (EDN) Bengaluru 2. Electronics Systems Division (ESD) 3. Solar Business Division (SBD), Bangalore 4. Heavy Electrical Plant (HEP), Bhopal 5. Industrial Values Plant (IVP), Goindwal 6. Heavy Electrical Equipment Plant (HEEP), Haridwar 7. Central Foundry Forge Plant (CFFP), Hardwar 8. Heavy Power Equipment Plant (HPEP), Hyderabad 9. Fabrication Stamping & Insulator Plant (FSIP), Jagdishpur 10. Transformer Plant (TP), Jhansi 11. Component Fabrication Plant (CFP), Rudrapur 12. Boiler Auxliaries Plant (BAP), Ranipet 13. High Pressure Boiler Plant (HPBP), Tiruchirappalli 14. Seamless Steel Tube Plant (SSTP), Tiruchirappalli 15. Power Plant Piping Unit (PPPU), Thirumayam 16. Heavy Plates & Vessels Plant (HPVP), Visakhapatnam, Repair Units 1. Electrical Machine Repair Plant (EMRP), Mumbai, Repair Units Varanasi 2. Heavy Equipment Repair Plant (HERP) & BHEL Subsidiary, BHEL Electrical Machines Ltd. (BHEL-EML), Kasaragod.

2.2 Brief Requirement of Project:

BHEL has been awarded a work of Execution of 2X660 MW DVC Raghunathpur, 1X800 MW DBCRTPP Yamunanagar, 1X800 MW Koradi, 1X800 MW GSECL Unit#7 UKAI, 2X660 MW CSPGCL Korba West Project. The project is to be executed against a stringent delivery schedule with respect to other EPC projects of similar rating.

Package I – Three (03) Projects

Details	2X660 MW DVC Raghunathpur	1X800 MW DBCRTPP Yamunanagar	2x660MW Koradi TPS BTG on EPC
Project Contract period	First Unit 48 months Second unit 52 months from zero date.	56 months from zero date.	58 months from zero date.
Brief scope of work of BHEL	EPC Package	EPC Package	EPC Package
Zero Date of project	19.02.2025	20.03.2025	07.02.2025

Package II - Two (02) Projects

Details	1X800 MW GSECL Unit#7 UKAI	2X660 MW CSPGCL Korba West
Project Contract period	72 months from Zero date	First Unit 48 months, Second Unit 52 months, from zero date.
Brief scope of work of BHEL	EPC Package	BTG area EPC Package
Zero Date of project	27.03.2025	03.04.2025

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For Execution of such stringent timeline project, BHEL's objective is to ensure high quality of engineering, procurement and construction of project, in conformity to the design requirements, specifications of the customer.

The delivery of the overall project shall:

- i. Require seamless coordination between
 - a) BHEL and Customer,
 - b) BHEL's project site, manufacturing units, Engineering centers and various other ancillaries/ execution centers spread across India and
 - c) BHEL & its contractors/ vendors/suppliers.
- ii. Project is liable to several risks. Some of these would be on account of timely approvals, material ordering/ availability, changing construction schedule(s) & various execution challenges, etc.

2.3 Scope of Work:

BHEL intends to hire a Project Management Consultant for Five Projects. Majorly, the Scope is divided into two Packages, i.e.

- i. Package I Three (03) Projects:
 - a. 2X660 MW DVC Raghunathpur
 - b. 1X800 MW DBCRTPP Yamunanagar
 - c. 2x660MW Koradi TPS BTG on EPC .
- ii. Package II Two (02) Projects:
 - a. 1X800 MW GSECL Unit#7 UKAI
 - b. 2X660 MW CSPGCL Korba West.

Note:

1. Package I & Package II, to be awarded to two different agencies.
2. The aforementioned package wise earmarking of project is tentative and BHEL reserves right to change the projects at awarding stage.
3. BHEL also reserves right to add one additional project in either or both Packages from the new/upcoming project based on the order received by BHEL and establishment of zero date at the final accepted rates.
4. In case addl. Work is allocated/Awarded to BHEL at same project, Consultant shall extend its full support for such addl. Work under same Terms and Conditions.

In the aforementioned Projects, Project management Consultant shall assist BHEL in timely execution of Project work. To undertake the Project Management Consultancy services, detailed scope of work is mentioned hereunder:

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CHAPTER-II: Scope of Work

S.No.	Broad Scope of Work	Sub Division
1	Project Management	
	a	Schedule Management
	b	Control/Review Management
	c	Support Management
	d	Management Information System
	e	Project specific Dash board
2	Contract Management	
	a	Contract administration
	b	Risk Management
	c	Project Governance
	d	Project Closure

- 1. Project Management:** The objective of Project Management Consultancy will be to minimize the overall project delay and build a strong culture of high performance, by setting up an integrated team with the goal to achieve completion of the overall project within stipulated timelines. To deliver the project within project schedule and to improve process of BHEL, Consultant shall undertake the following activities relating to Project Management:

a. Schedule Management (by using MS Project):

- Review/validate L-2 schedule (integrated schedule of Engineering, Supplies & Construction activities) in line with best effort schedule of BHEL. Analyzing and Realignment of project work breakdown structure (WBS) with activities duration.
- Validate L-3 schedule with BHEL's Contractor in line with agreed Best Effort L-2 schedule and respective Contract schedule of BHEL's Contractor.
- Review of financial L-2 Schedule in line with physical progress in consultation with BHEL.
- Linkage of resource inputs (with the help of BHEL) such as Drawing, Material, Manpower, Tools & Plant and inputs from Customer etc. through IPMS/digital dash board, in project schedule.
- Review of Three Months Rolling plan, Monthly activity plan and Look ahead/catchup plan/mitigation plan with BHEL and BHEL's Contractors.
- Review of L-2, Intermediate revision of L-2 schedule periodically at a defined frequency.

b. Control/Review Management:

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- i. Updation of L-2/L-3 Schedule, monthly plan and three months rolling plan by collecting details from all stakeholders (such as MUs, Regions, Engineering centers & Sub contractors etc.) periodically at a defined frequency.
- ii. Review of timeliness and comprehensiveness of all critical documents such as customer inputs protocol/ Letters/clearances/approvals and Project deliverables protocol etc. in digital repository/ digital dashboard.
- iii. Identification and red flagging of critical path and near critical tasks on monthly basis.
- iv. Identifying constraints & hold-ups for present and the next three following months.
- v. Close monitoring of Catch-up plan/mitigation plan of critical activities.
- vi. Setting up of the Agenda for each of the meetings including the kick-off meetings and supporting BHEL, with details and documents, during the meetings.
- vii. Prepare, Circulate and monitor the MOM/RnD/Key take away from the meetings with stakeholders.
- viii. Review of resource mobilization by BHEL's contractor and advising BHEL regarding adequacy of special tools/ equipment, manpower and resources of contractor.
- ix. Establish a project specific vendor performance rating framework for all the vendors/ sub-contractor working at site, on the basis of their actual physical progress, manpower mobilization and T&P deployment vis-à-vis project requirement available inputs. Calculate performance-based vendor rating, independently, on monthly basis. Highlight vendors/ sub-contractors with consistent poor performance to the project leadership and suggest necessary corrective actions.
- x. Track status of supply of equipment/structures/BOPs/BOIs/other items required for execution of the work. Generation of critical material list on monthly basis.
- xi. Highlight the engineering inputs for next three months and conducting meetings with BHEL engineering centers on fortnightly basis.
- xii. Review of civil material requirement in the scope of BHEL as well as BHEL's Contractor.
- xiii. Facilitate Steering Committee Meetings on a monthly basis to resolve policy/contract related issues/ key bottle necks in project, suggest mitigating measures in the event of "overruns" and "Stuck Tasks".
- xiv. Monitoring of BHEL existing various online Quality Management systems for compliance regarding regular update of data in SAR/CAR, WPMS, FQMS, FCMS, RCA, SDR etc. & its timely closing by Site erection & Quality group in all sites.

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c. Support Management:

- i. Report on scope of potential improvement in construction practices at site.
- ii. Submit Monthly analysis on “Productivity of Major/Critical Resources” deployed at site. *Resources shall mean the Skilled manpower and critical Plant & machinery of contractors engaged on site by BHEL.*
- iii. Estimate cost of delay in case of time overrun of any contract/overall project.
- iv. Perform root cause analysis causing delay.
- v. Assisting BHEL in evaluating solutions to resolve contractual problems and site related issues.
- vi. Review of Contract Document between BHEL and Sub Vendor on need basis. Consultant to recommend improvement actions/benchmark practices to be under taken while Sub-contracting.
- vii. Ensure effectiveness of Drawing management processes at engineering centers (such as PEM & ISG) and Site.
- viii. Engineering Management – Monitoring (through MDL / IPMS / DMS/ PEMS/ digital dashboard) and forecasting priority RFC drawings required for next 3 months based on the work front availability and execution progress; Prepare a monthly look-ahead plan for engineering.
- ix. Material and equipment manufacturing/ delivery tracking – Prepare material/ equipment delivery plan and look-ahead plan as per the integrated schedule and project requirements. Monitor status of material delivery.
- x. Review existing construction technology/equipment/processing used and benchmark/best practices against latest construction technology/ equipment/ process being used along with their benefits.
- xi. Consultant shall submit a process improvement report to BHEL on periodic basis. Implementation of such process improvement report shall be at sole discretion of BHEL. *Periodicity to be finalised at the time of finalisation of “LIST OF KEY DELIVERABLES”*

d. Management Information System:

- i. Develop & Implement MIS framework with BHEL identifying LIST OF KEY DELIVERABLES (after discussion with BHEL) on Daily/Weekly/Fortnightly /Monthly/Quarterly/Half yearly/Annual basis’.
- ii. Assessment of Project turnover on monthly/quarterly/annual basis.
- iii. Consultant shall use BHEL system (Wrench/IPMS/Other) for report publication and monitoring of Key Performance Indicators such as Milestone tracker, schedule status etc.
- iv. Presentation on critical issues & Potential bottlenecks along with mitigation approach, on need basis.

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- v. Escalation report on Pertinent and Recurring issues.
- vi. Presentation of Project progress visualization (site photos).
- vii. Issue confidential exception report to BHEL's Top management on weekly basis.
- viii. Establishing tracker to monitor progress of engineering, Procurement, supply and construction.
- ix. Monthly/Quarterly project report preparation covering Key performance criteria such as current construction status, deviations from approved schedules, critical areas and proposed remedial measures.

e. Operation of Project specific Dash board:

1. Consultant shall operate digital project management dashboard deployed by BHEL at project. Consultant Deployed at site, as per team deployment schedule by, shall be involved in operations of the Project specific digital Dash board.
2. On specific instruction of BHEL, **Consultant** shall operate BHEL's Project Monitoring Dashboard for their concerned projects to track Key Performance Indicators (KPIs) across the entire project lifecycle from engineering till commissioning of the respective Project.
3. Timeline for operation of the BHEL's Project Monitoring Dashboard shall be **2 weeks from consultant's kick-off meeting (KOM) of each project or as decided otherwise in KOM**. Consultant shall also support in manual generation of project MIS/progress reports.
4. Consultant shall collect the inputs from BHEL systems and upload/integrate the same in the dashboard, for its efficient operation.
5. Brief description of Web based digital dashboard and various modules/sub-modules as listed below:
 - i. Module 1 – Login:
 - a. An application, with a secure introductory screen for logging in.
 - b. Login details - username and password, with optional CAPTCHA / two-factor authentication (2FA) for enhanced protection (A "Forgot Password" link to also be enabled).
 - c. Role-based authorization / access controls to ensure appropriate data access and management based on management levels.
 - ii. Module 2 – Project Home page
Upon successful login, a Project Home page that serves as a central hub, showcasing entire portfolio of projects, along with basic information about the projects.
 - iii. Module-3 - Progress Overview: Progress overview page of the selected project to be displayed with a holistic view of the project's progress and its salient features. The following sub-modules shall be included in the Project Overview:

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- a. Sub-Module-1 - Project Dashboard shall display project S-curve based on the physical progress across various phases of project and across functional areas – Engineering, Supply, Construction, and Commissioning, Critical path highlighting list the critical activities (through integration with a scheduling platform), potential critical activities, project exceptions, insights into the project's Quality & safety parameters, key project risks, look-ahead etc.
 - b. Sub-Module-2 - Project Dashboard shall display Milestone tracker: Planned v/s Achieved /anticipated milestone targets along with availability status of inputs such as resource, material, drawings, fronts etc.
 - c. Sub-Module-3 - Project Dashboard shall display Financial progress: Tracking of overall/package wise turnover (TO) against the monthly plan.
 - d. Sub-Module-4 - Project Dashboard shall display Project Highlights and achievements.
 - e. Sub- Module-5 – System shall generate project Exception report.
- iv. Module-4 - Package level tracker:
Highlighting quantified progress achieved (against L2 level) across various packages on cumulative as well as weekly/monthly/quarterly basis. Functionality to capture package level progress tracking across functional areas – Engineering, Supply, Construction, and Commissioning.
Look-ahead plan capturing monthly and three-months look ahead targets matching project milestones.
Package wise front availability status / tracking of various inputs, materials, resources that are required for upcoming tasks.
Capturing various key project Risks, hindrances and bottlenecks along with milestones, and potential issues along with mitigation plan.
- v. Module-5 - Engineering
Tracking the progress of engineering deliverables against the planned schedule/milestones, highlighting three months drawing requirements.
- vi. Module-6 - Tendering / Package awards
Tracking (PI- PO) of the entire award cycle for tendering of work and procurement executed at various Units/region/CPC of BHEL.
Provision to track customer approval requirement & process.
- vii. Module-7 Manufacturing/Delivery tracking
Ability to effectively track manufacturing progress and equipment/material delivery, aligned with site construction/erection requirements.

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Functionality to provide an overview of equipment/material delivery requirements over the next six months, along with anticipated delivery dates at site.

Application of analytics to highlight critical exceptions in terms of equipment manufacturing/delivery on a proactive basis.

viii. **Module-8 – Construction & Commissioning**

Capability to track key aspects of construction activities, including project enablers, schedule adherence, raw material availability, manpower/resource mobilization, exceptions management, preparation of catch-up plans in case of delays and overall readiness for commissioning. This shall include the following sub-modules:

a. **Sub-Module-1 – Project Enabler:**

Provision to highlight availability of critical project enablers necessary for the construction phase. Module should be able to track readiness of various construction enablers against targets, including but not limited to:

o Blasting Permissions & Approvals (if applicable)

o Roads (Permanent & temporary)

o Boundary Walls

o Drains

o Construction Power and Utilities

o Storage Space (incl. preservation of material) etc.

Capturing delays and exceptions related to project enablers and construction activities, along with mitigation plans and responsibilities.

b. **Sub-Module-2 - Civil / Mechanical / Electrical / Commissioning**

Functionality to manage detailed scheduling and planning for different construction disciplines.

Plan v/s Actual: Compare planned v/s actual progress for each week/month, highlighting discrepancies and areas needing attention.

Raw Material Availability: Track raw material availability, including specific needs such as sand, cement, Steel, TMT etc.

Provision of auto upload of Daily Progress Reports (DPRs) from the data forms by the Site team to facilitate analytics, benchmarking, trend analysis, and catch-up plans.

Provision for generation of Daily progress report of the project for Customer/BHEL Management.

Provision to upload area wise site photographs, to reflect timeline progress of work.

c. **Sub-Module-3 – Resource mobilization: Manpower / Tools & Plants (T&P) Tracking**

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Functionality to track and manage the deployment plan, and availability of manpower, tools, and equipment in order to meet the desired progress.

Generation of reports on workforce productivity metrics to identify areas for efficiency improvement.

d. Sub-Module-4 – System Level Readiness

Functionality to plan and track readiness of systems and components required for commissioning as per Milestone/operational targets, and incorporating inter-system dependencies.

Planning and monitoring availability of enablers for smooth commissioning of units.

ix. Module-9 A – Quality

Functionality for Daily Field Inspection Management including monitoring of Quality protocols, track KPIs. Capturing non-conformances, including status, actions taken, and pending issues; provide ageing analysis for open NCR's and other concerns.

x. Module-9 B – Safety

Functionality to monitor safety protocols, work permits, track KPIs. Capturing non-conformances, including status, actions taken, and pending issues; provide ageing analysis for open NCR's and other concerns.

Linkage with BHEL's existing Online Safety Management systems for data flow.

xi. Module-10 - Lessons learnt

Provision to capture, document, and analyze lessons learned throughout the project on an annual basis.

Ability to integrate data to monitor implementation status of various lessons learned.

Capability to print various screens/reports.

2. **Contract Management:** To protect BHEL interests, Consultant shall undertake the following activities relating to Contract Management:

a. **Contract administration:**

- i. Understanding the BHEL Customer (DVC, GSECL, CSPGCL, MAHAGENCO, HPGCL) contract.
- ii. Identify & Record key deliverables to BHEL's Customer as per Contract along with target milestone date.

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- iii. Review and monitor customer complain & hindrance register through BHEL systems/digital dashboard.
- iv. Support BHEL for contract related communications to Customer.
- v. Change Management: Assist BHEL by reviewing and reporting in analyzing change in scope if any from customer Contract.
- vi. Claim management: Assist BHEL in analyzing/preparing claims and counter claims on BHEL's Customer/ Sub contractor. Consultant shall provide all relevant data/ inputs to BHEL, which shall enable BHEL to raise & settle claims & disputes.
- vii. Consultant shall provide guidance/handholding of BHEL, till Project Handover/till consultant's contract period.
- viii. Provide inputs to BHEL for preparing delay analysis, in case of extension in customer contract.
- ix. Review Sub Contractor's Contract working at project site and suggest area of improvement, industry best practices and feedbacks on monthly basis, in order improve the quality of Contract Document.

b. Risk Management:

- i. Project risk identification, assessment and risk mitigation planning through proper Risk Assessment techniques such as FMEA.
- ii. Identify opportunities in terms of early schedule completion & Process improvement.
- iii. Develop & update Risk register with prioritization on monthly basis.
- iv. Conduct risk workshops on quarterly basis to identify new risks, track and mitigate identified risks and capturing mitigation plan/status.

c. Project Governance:

- i. Define and agree protocols/procedures for project monitoring and involvement of major stakeholders.
- ii. Consultant must provide an escalation matrix, on consultant side, for unresolved issues, ensuring accountability and quick resolution.
- iii. Based on BHEL present organizational structure, Communication matrix/framework for report and data sharing with all the stake holders, to be developed.

d. Project Closure:

- i. Consultant shall submit Project closure report.
- ii. Periodic backup of data (including dashboard data) to be provided to BHEL. Backup file version/type shall be agreed with BHEL at initiation of contract.

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- iii. After Completion of Contract period, consultant shall handover all the worksheets framework and records to BHEL site office.
- iv. Conduct lessons learnt workshop (on quarterly basis).
- v. Prepare and review Project closure plan on regular basis.
- vi. Consultant shall assist BHEL for closure of Pending points, raised by Customer in order to handover the unit to Customer.
- vii. Consultant shall submit comprehensive learning report capturing learning after major project phases; engineering, procurement and construction (when the major work is complete for respective phase). A typical learning document may include but not limited to:
 - 1. Key challenges faced and project successes
 - 2. Key assumptions vs actual implementation
 - 3. Areas of time and cost over-run
 - 4. Major quality non-conformances
 - 5. Customer & sub-contractor/vendor feedback
 - 6. Future projects recommendations
- viii. Consultant shall submit Comprehensive Report listing out delays by BHEL or BHEL's subcontractor / Customer or Force Majeure along with backup documents.

2.4 General Conditions:

- i. Non-Disclosure Agreement: The selected bidder after placement of work order and prior to commencement of work must sign the Non-Disclosure Agreement (NDA) as per the format specified by BHEL (Annexure-3).
- ii. Consultant shall finalise a DELIVERABLE & KPIs PLAN based on above scope of work, with BHEL within 30 days from the date of LOA (Letter of Award). The DELIVERABLE & KPIs PLAN shall be subjected to BHEL's approval. The DELIVERABLE & KPIs PLAN shall be reviewed and revised on quarterly basis by BHEL/Consultant.
- iii. Consultant shall gather all information and activities executed till deployment of consultant at site. Consultant shall record all the delays (if any) including delays on the part of customer observed till deployment of consultant at site. *Consultant has to collect all information about the activities executed at projects, mentioned in the tender, at the time of commencement of work.*
- iv. Consultant shall procure and handover one license of MS Project to each BHEL project site. Consultant shall also provide basic training of 30 man-days per project to BHEL representatives, who shall be working on MS Project.
- v. Consultant Team shall coordinate with various stake holders including BHEL employees across manufacturing units/Regional office/Head office /any other office/Site.
- vi. Consultant shall collect, analyse and provide all the necessary data and deliverables as per the agreed format and timelines w.r.t. scope mentioned in the tender.
- vii. Consultant has to arrange personnel Protective gear for their personnel, for site visits.

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- viii. The team deployed by the consulting firm shall abide by all Safety Rules and Guidelines of BHEL and ensure the usage of proper personnel Protection Equipment (PPEs) while visiting the manufacturing units/ sites. The consulting firm shall also be responsible for compliance to statutory and government regulations as applicable as well as the safety & welfare of all employees deployed at BHEL and payment of salaries to their employees and statutory deductions if any. BHEL reserves the right to audit the consultant's compliance with statutory safety and welfare regulations at any time during the contract period.
- ix. BHEL shall review the performance of Consultant on half yearly/yearly basis, based on KPIs reflecting on agreed deliverables.
- x. BHEL at its discretion may short close the contract or part thereof with a notice period of 30 days. In case of such short closure, Consultant shall complete Contract Closure formalities and after submission of Project closure report, learning report & Claim report with customer (if any), consultant shall be entitled for release of retention payment. Consultant shall not be entitled for any claim in this regard.
- xi. On Specification instruction of BHEL, Consultant shall demobilise the resources and remobilise at project site, at no extra cost to BHEL.
- xii. The team proposed to be deployed shall remain unchanged during the whole period of contract and extension (if any), unless under unavoidable circumstances. In such a situation, whether during the contract execution period or during the bidding process, the change will only be permitted with the prior written consent of BHEL, based on credentials of new members furnished. The new member/s proposed to be deployed shall also meet the minimum experience as defined in the tender document.
- xiii. BHEL reserves the right to seek changes in the team of consultant deployed during the course of the contract.
- xiv. Consultant shall make their own arrangements of accommodation, local transportation and logistics, resources such as Computers/laptops /printers/stationary etc. to execute the scope of work.
- xv. Consultant shall provide written assurance towards data privacy or place its IT server at site for all activities, including but not limited to, data collection, storage, analysis and reporting purpose.
- xvi. BHEL shall provide (A/C) workspace at site office/Head office to the consultant free of cost.
- xvii. Internet shall be provided by BHEL free of cost.
- xviii. After Completion of Contract period, consultant shall handover all the worksheets, reports, framework, dashboard and records to BHEL site office. The consultant shall ensure that all project data and deliverables include detailed audit trail for compliance and traceability.
- xix. All Statutory Compliance (as applicable) for execution of this scope of work, shall be in the scope of Consultant. No Extra charges shall be made by BHEL against any statutory compliance.
- xx. No extra payment shall be made for any work executed beyond official working hours.
- xxi. Consultant may have to visit BHEL/Customer office or manufacturing units for presentation/follow-ups. In case BHEL instruct Consultant to visit BHEL/Customer office or

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CHAPTER-II: Scope of Work

manufacturing units, transportation (mode of transportation via economy class flight/first class AC Train etc. may be indicated) (including local transportation) and accommodation charges of the consultant shall be reimbursed at actuals on submission of documentary proof. Approval from BHEL to be obtained for such travel, of consultant or representative of consultant company.

2.5 Consultant default: Breach of Contract, Remedies and Termination

2.5.1 BHEL reserves the following rights in respect of this contract during the original contract period or its extensions if any, as per the provisions of the contract, without entitling the Consultant for any compensation.

2.5.2 BHEL shall terminate the contract after due notice of a period of 14 days' in any of the following cases, which if not rectified/ improved within the time period mentioned in the notice, then, 'Breach of Consultant' will be considered to have been established:

- i). Consultant's poor progress of the work vis-à-vis execution timeline as stipulated in the agreed KPIs.
- ii). Withdrawal from or abandonment of the work by Consultant.
- iii). Repeated failure of Consultant in deploying the required resources, to comply the contractual requirements etc. even after given by BHEL in writing.
- iv). Assignment, transfer, subletting of Contract without BHEL's written permission.
- v). Non-compliance to any contractual condition or any other default attributable to Consultant.

2.5.3 Remedies in case of Breach of Contract is established

- (a) Wherein the period as stipulated in the notice issued under clause 2.5.2 (i) has expired and Contractor has failed to remedy the breach, BHEL will have the right to terminate the contract on the ground of "Breach of Contract" without any further notice to contractor.
- (b) Upon termination of contract, BHEL shall be entitled to recover an amount equivalent to 10% of the Contract Value for the damages on account of breach of contract committed by the Contractor. This amount shall be recovered by way of encashing the security instruments like performance bank guarantee etc available with BHEL against the said contract.
- (c) In case the value of the security instruments available is less than 10% of the contract value, the balance amount shall be recovered from other financial remedies (i.e. available bills of the contractor, retention amount, from the money due to the Contractor etc. with BHEL) or the other legal remedies shall be pursued.
- (d) wherever the value of security instruments like performance bank guarantee available with BHEL against the said contract is 10% of the contract value or more, such security instruments to the extent of 10% contract value will be encashed. In case no security instruments are available or the value of the security instruments available is less than 10% of the contract value, the 10% of the contract value or the balance amount, as the case may be, will be recovered in all or any of the following manners:
 1. From dues available in the form of Bills payable to defaulted Contractor against the same contract.

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CHAPTER-II: Scope of Work

2. In case the amount recovered under sub clause (a) above is not sufficient to fulfil the amount recoverable then a demand notice to deposit the balance amount within 30 days shall be issued to Contractor.
3. If contractor fails to deposit the balance amount within the period as prescribed in demand notice, following action shall be taken for recovery:
 - i) If it is not possible to recover the dues available from the same contract or dues are insufficient to meet the recoverable amount, balance amount shall be recovered from any money(s) payable to Contractor under any contract with other Units of BHEL including recovery from security deposits or any other deposit available in the form of security instruments of any kind against Security deposit or EMD
 - ii) In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against contractor.
- (e) It is an agreed term of contract that this amount shall be a genuine pre-estimate of damages that BHEL would incur in completion of balance contractual obligation of the contract through any other agency and BHEL will not be required to furnish any other evidence to the Contractor for the purpose of estimation of damages.
- (f) In addition to the above, imposition of liquidated damages, debarment, termination, de-scoping, short-closure, etc., shall be applied as per provisions of the contract.

Note:

The defaulting contractor shall not be eligible for participation in any of the future enquiries floated by BHEL to complete the balance work. The defaulting contractor shall mean and include:

- (a) In case defaulted contractor is the Sole Proprietorship Firm, any Sole Proprietorship Firm owned by same Sole Proprietor.

In case defaulted contractor is The Partnership Firm, any firm comprising of same partners/ some of the same partners (but not including any new partner); or sole proprietorship firm owned by any partner(s) as a sole proprietor.

2.6 Use of contract documents, specifications, design

The consulting firm shall not, without BHEL's prior written consent, disclose the contract or any provision thereof or any data, findings etc. or information furnished by or on behalf of BHEL in connection or to any person other than a person employed by the consulting firm in the performance of the work order/ contract. Disclosure to any such employed person shall be made in confidence and shall extend only so as may be necessary for the purpose of such performance. The bidder will bind such employees to the secrecy of information.

2.7 Documents/ reports/ deliverables

Reports & documents submitted by the successful bidder shall become and remain the property of BHEL. BHEL will be authorized to use the intellectual property contained in the report for its own purposes in accordance with the contract. BHEL can download, make copies, distribute, modify and create derivate works of the reports.

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Chapter – III: Team Deployment Schedule

3.1 Team Deployment Schedule:

1. Consultant shall deploy their team as per agreed Team Deployment Schedule to execute the complete project under aforesaid scope of work.
2. Consultant & BHEL Site office shall jointly assess the TEAM DEPLOYMENT SCHEDULE for entire duration of Contract period.
3. TEAM DEPLOYMENT SCHEDULE can be revised by BHEL (on advance notice of 30 days), after analysing actual requirement of Consultant at site. Payment shall be made w.r.t. any upward or downward variation in manpower deployment as mentioned in revised Team deployment schedule.
4. The consultant shall deploy their resources for the work at BHEL's Site offices/Head office. (Tentatively one representative to be deployed at Head office, on specific instruction of BHEL).
5. Consultant has to share their resources between different project sites and Head Office based on Team Deployment Schedule as decided by BHEL.
6. BHEL holidays shall be applicable to the consultant. However, Consultant shall be liable to fulfil its commitment towards KPIs/ Deliverables.
7. In case of absence of deployed personnel, Consultant shall intimate in advance and shall ensure the replacement of the personnel with sufficient overlap period.
8. The Contract prices shall be inclusive of all charges, overtime charges, out of pocket allowance, travel (air / train / road) etc. No other claim on account of any other expenses shall be entertained by BHEL.
9. **Allowable Absence:** 12 days of absence per annum of each deployed Consultant (as per TEAM DEPLOYMENT SCHEDULE), shall be allowed, subject to approval from BHEL Project Director/General Manager at Project Site. No deduction shall be made, for such absence.
10. In case of non-availability of the required personnel at site, beyond allowable absence, BHEL shall not make the payment for the period of actual absence on pro rata basis (Considering 25 working days per month). In addition to above, BHEL shall deduct Rs. 1000 per day per person as penal action for the period of actual absence of personnel at Site.
11. Consultant shall be liable to execute the agreed Key Deliverables, in variable of the availability of manpower at site.

3.2 Tentative Team Deployment Schedule for 1X800 MW Yamunanagar Project is mentioned hereunder:

1X800 MW Yamunanagar Project												
Area	No of Pers on	Firs t Half of FY(25- 26)	Seco nd Half of FY(2 5- 26)	Firs t Half of FY(26- 27)	Seco nd Half of FY(2 6- 27)	Firs t Half of FY(27- 28)	Seco nd Half of FY(2 7- 28)	Firs t Half of FY(28- 29)	Seco nd Half of FY(2 8- 29)	Firs t Half of FY(29- 30)	Seco nd Half of FY(2 9- 30)	Man Mo nth

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Chapter – III: Team Deployment Schedule

Project Director	1	4	6	6	6	6	6	6	6	6	2	54
Commercial Manager	1	4	6	6	6	6	6	6	6	6	2	54
Project Manager	1	4	6	6	6	6	6	6	6	6	2	54
Project Manager												
Technical lead												
Civil	1	4	6	6	6	6	6	6	6	6		52
Mechanical	1		2	6	6	6	6	6	6	6	2	46
Elec & C&I	1				6	6	6	6	6	6	2	38
Commissioning	1				6	6	6	6	6	6	2	38
Total Man-month												336

3.3 Tentative Team Deployment Schedule for 2X660 MW DVC Raghunathpur Project is mentioned hereunder:

2X660 MW DVC Raghunathpur Project											
Area	No of Person	First Half of FY(25-26)	Second Half of FY(25-26)	First Half of FY(26-27)	Second Half of FY(26-27)	First Half of FY(27-28)	Second Half of FY(27-28)	First Half of FY(28-29)	Second Half of FY(28-29)	First Half of FY(29-30)	Man Month
Project Director	1	4	6	6	6	6	6	6	6	3	49
Commercial Manager	1	4	6	6	6	6	6	6	6	3	49
Project Manager	1	4	6	6	6	6	6	6	6	1	47
Project Manager	1		6	6	6	6	6	6	6	3	45
Technical lead											
Civil	1	4	6	6	6	6	6	6	6	1	47
Mechanical	1		2	6	6	6	6	6	6	3	41

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – III: Team Deployment Schedule

Elec & C&I	1				6	6	6	6	6	3	33
Commissioning	1				6	6	6	6	6	3	33
Total Man-month											344

3.4 Tentative Team Deployment Schedule for 2x660MW Koradi TPS BTG on EPC is mentioned hereunder:

2x660MW Koradi TPS BTG on EPC												
Area	No of Person	First Half of FY(25-26)	Second Half of FY(25-26)	First Half of FY(26-27)	Second Half of FY(26-27)	First Half of FY(27-28)	Second Half of FY(27-28)	First Half of FY(28-29)	Second Half of FY(28-29)	First Half of FY(29-30)	Second Half of FY(29-30)	Man Month
Project Director	1	4	6	6	6	6	6	6	6	6	3	55
Commercial Manager	1	4	6	6	6	6	6	6	6	6	3	55
Project Manager	1	4	6	6	6	6	6	6	6	6	3	55
Project Manager												
Technical lead												
Civil	1	4	6	6	6	6	6	6	6	6	1	53
Mechanical	1		2	6	6	6	6	6	6	6	3	47
Elec & C&I	1				6	6	6	6	6	6	3	39
Commissioning	1				6	6	6	6	6	6	3	39
Total Man-month												343

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – III: Team Deployment Schedule

3.5 Tentative Team Deployment Schedule for 1X800 MW UKAI Project is mentioned hereunder:

1X800 MW UKAI															
Area	No of Person	First Half of FY(25-26)	Second Half of FY(25-26)	First Half of FY(26-27)	Second Half of FY(26-27)	First Half of FY(27-28)	Second Half of FY(27-28)	First Half of FY(28-29)	Second Half of FY(28-29)	First Half of FY(29-30)	Second Half of FY(29-30)	First Half of FY(30-31)	Second Half of FY(30-31)	First Half of FY(31-32)	Man Month
Project Director	1	4	6	6	6	6	6	6	6	6	6	6	6	1	71
Commercial Manager	1	4	6	6	6	6	6	6	6	6	6	6	6	1	71
Project Manager	1	4	6	6	6	6	6	6	6	6	6	6	6	1	71
Project Manager															0
Technical lead															
Civil	1	2	6	6	6	6	6	6	6	6	6	6	5		67
Mechanical	1			6	6	6	6	6	6	6	6	6	6	1	61
Elec & C&I	1				2	6	6	6	6	6	6	6	6	1	51
Commissioning	1					6	6	6	6	6	6	6	6	1	49
Total Man-month															441

3.6 Tentative Team Deployment Schedule for 2x660 MW CSPGCL Korba West HTPS is mentioned hereunder:

2x660 MW CSPGCL Korba West HTPS											
Area	No of Person	First Half of FY(25-26)	Second Half of FY(25-26)	First Half of FY(26-27)	Second Half of FY(26-27)	First Half of FY(27-28)	Second Half of FY(27-28)	First Half of FY(28-29)	Second Half of FY(28-29)	First Half of FY(29-30)	Man Month
Project Director	1	4	6	6	6	6	6	6	6	5	51

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – III: Team Deployment Schedule

Commercial Manager	1	4	6	6	6	6	6	6	6	5	51
Project Manager	1	4	6	6	6	6	6	6	6	3	49
Project Manager	1		4	6	6	6	6	6	6	5	45
Technical lead											
Civil	1	2	6	6	6	6	6	6	6	3	47
Mechanical	1			6	6	6	6	6	6	5	41
Elec & C&I	1				2	6	6	6	6	5	31
Commissioning	1					6	6	6	6	5	29
Total Man-month											344

3.7 Void

3.8 Team deputed by Consultant shall be professionally qualified and have the experience as envisaged below. Consultant to submit CVs before deployment for approval by BHEL.

Project Director	Min. 15 years of experience in infrastructure/power plant and completed at-least 1 Thermal power plant project as Project Director/ Project lead/Similar role.
Commercial Manager	Min. 5 years of experience in Contract management and have consultancy experience.
Project Manager (2 nos. approx.)	Min. 5 years of experience in Project Management in Power/Infrastructure project and have consultancy experience.
Technical Lead (4 nos. approx.)	Min. 5 years of experience in Construction/Execution of projects in respective area.

For successful execution of work and deliverables as mentioned in KPIs, Consultant may have to deploy additional manpower beyond team deployment schedule agreed with BHEL, at their (consultant) own cost.

3.9 Bidder shall provide a list of Senior team members for all the projects who will be driving this project till completion of the contract. The Senior team shall include minimum, i) One Lead Partner/ Partner/ Director/ equivalent, who will be designated as Project Director; ii) One Commercial Manager; iii) Two Project Management Consultants.

CVs of Senior Team Members proposed to be deployed for the project, duly certified by CEO/Country Head/Board of Directors/ Company Secretary/Authorized signatory duly authorized by CEO/Partner to be submitted along with tender document. Acceptance of CVs is subject to approval by BHEL.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – III: Team Deployment Schedule

Bidders need to submit **Annexure B (CV of Team Members)** along with requisite documentary proofs to establish qualification.

Note:

1. Members of team (other than Project Director), deployed by the Consultant, should not be above 65 yrs. of age on the date of joining at project site.
2. Project Director deployed by the Consultant, should not be above 65 yrs. of age on the date of joining at project site.
3. The aforementioned Team Deployment Schedule is tentative and based on BHEL experience. Consultant shall depute manpower for successful execution of work and deliverables, however BHEL shall make payment for actual deployment of manpower, maximum upto man-months mentioned in the Team Deployment Schedule. No Extra payment shall be made for any additional manpower deployed beyond **agreed Team Deployment Schedule**.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – IV: Contract Schedule

4.1 Contract Schedule:

Package I - Three (03) Projects

Details	1X800 MW Yamunanagar Project	2X660 MW DVC Raghunathpur Project	2x660MW Koradi TPS BTG on EPC
Contract Schedule	54 Months	49 Months	55 Months

Package II - Two (02) Projects

Details	1X800 MW UKAI	2x660 MW CSPGCL Korba West HTPS
Contract Schedule	71 Months	51 Months

Contract shall commence from the date of kick off meeting, held at each site within 15 days from date of Issuance of LOA (Letter of Award) or otherwise explicitly mentioned in Kick of meeting.

4.2 Extension of Contract: The services may get extended beyond contractual period on mutual agreement basis with same terms and condition incl. Payment Terms. Deployment of manpower beyond contractual schedule shall be reimbursed to the consultant on awarded Manpower rate + PVC as applicable.

4.3.1 The total scope of work of **Package I**, is divided into Three (03) nos. of Sub-Packages as mentioned below:

1. **Package-A:** Project Management Consultancy at 1X800 MW Yamunanagar Project.
2. **Package-B:** Project Management Consultancy at 2X660 MW DVC Raghunathpur Project.
3. **Package-C:** Project Management Consultancy at 2x660MW Koradi TPS BTG on EPC.

4.3.2 The total scope of work of **Package II**, is divided into Two (02) nos. of Sub-Packages as mentioned below:

1. **Package-D:** Project Management Consultancy at 1X800 MW UKAI , Unit-7.
2. **Package-E:** Project Management Consultancy at 2X660 MW CSPGCL Korba West

Package I & Package II, to be awarded to two different consultants. However, Sub-Packages A, B, & C of Package I and Sub-Package D & E of Package II, shall be treated as **Five** separate contracts and separate LOA shall be issued. For each item, item rate shall be derived from the price bid. Payment shall be made on item rate basis. In case of any dispute in scope of work between the packages, BHEL decision shall be final and binding to the agency/ies.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – IV: Contract Schedule

4.4 For the purpose of award, Packages amount shall be calculated as mentioned hereunder:

Project Management Consultancy tender for Package I - Three (03) Projects

Area	1X800 MW Yamunanagar Project	2x660MW Koradi TPS BTG on EPC	2X660 MW DVC Raghunathpur Project	Package A
Project Director	54	55	49	158
Commercial Manager	54	55	49	158
Project Manager	54	55	47	156
Project Manager	0	0	45	45
Technical lead				0
Civil	52	53	47	152
Mechanical	46	47	41	134
Elec & C&I	38	39	33	110
Commissioning	38	39	33	110
Total Man-month	336	343	344	1023

Project Management Consultancy tender for Package II - Two (02) Projects

Area	1X800 MW UKAI	2x660 MW CSPGCL Korba West HTPS	Package B
Project Director	71	51	122
Commercial Manager	71	51	122
Project Manager	71	49	120
Project Manager	0	45	45
Technical lead			0
Civil	67	47	114
Mechanical	61	41	102
Elec & C&I	51	31	82
Commissioning	49	29	78
Total Man-month	441	344	785

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – V: Terms of Payment

5.1 Payment Terms, on pro rata basis:

A. Package I & 2 -

1. Activity linked Payment: 2.5% of Contract value shall be paid on 'Mobilisation of team at site' and finalising 'TEAM DEPLOYMENT SCHEDULE' & 'LIST OF KEY DELIVERABLES'.
2. Deployed Manpower Payment: 97.5 % of the amount shall be paid on actual deployment of consultant team based on TEAM DEPLOYMENT SCHEDULE on man month rate basis, **subject to completion of all agreed KEY DELIVERABLES, without any discrepancy, on monthly basis.**

5.2 BHEL's authorized officer will duly authenticate & certify each document before processing the claim. BHEL, through electronic fund transfers, shall make payment within 45 days after submission of bills certified for payment along with statutory compliances.

5.3.1 BOQ CUM RATE SCHEDULE Price bid for total scope of work of **Package I**:

S.N.	Area	TOTAL Projects	Amount Weightage
1	Deployed Manpower Payment	Man-Month of all four Projects	
2.1	Project Director	158	0.2009886925
2.2	Commercial Manager	158	0.1674905787
2.3	Project Manager	156	0.1616144672
2.4	Project Manager	45	0.0483791591
	Technical Lead		
2.5	Civil	152	0.1266848376
2.6	Mechanical	134	0.1126271064
2.7	Elec & C&I	110	0.0911075793
2.8	Commissioning	110	0.0911075793
	Total Man-month	1023	

5.3.2 Price bid for total scope of work of **Package II**:

S.N.	Area	TOTAL Projects	Arrived Rates
2	Deployed Manpower Payment	Man-Month of all four Projects	
2.1	Project Director	122	Based on final awarded value of Package -I derived as described in modality of award in NIT
2.2	Commercial Manager	122	
2.3	Project Manager	120	
2.4	Project Manager	45	

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – V: Terms of Payment

	Technical Lead		
2.5	Civil	114	Based on final awarded value of Package -I derived as described in modality of award in NIT
2.6	Mechanical	102	
2.7	Elec & C&I	82	
2.8	Commissioning	78	
	Total Man-month	785	

Note:

1. Calculation shall be done up to two decimal points and without rounding-off.
2. The rates will be valid till the entire scope of the work is executed in all respects. No escalation in the rates shall be accepted during the entire period of the contract and extension if any, other than Price variation Compensation (PVC) during Extension period.
3. Modality of award to be referred.

5.4 Liquidated Damages/Penalty:

If the Consultant fails to provide the agreed KPIs/Deliverable within the agreed time frame on monthly basis, BHEL shall have the right to impose Liquidated Damage/Penalty at the rate of 0.5% of the Monthly RA Bill (of the month, in which delay occurred), per day of delay of each KPI from the schedule date, to a maximum of 5% of the contract value. For this purpose, the period for which LD is applicable shall be worked out based on portion of delay solely attributable to Consultant.

5.5 Retention amount:

5.5.1 Retention Amount shall be 5% of contract value and shall be furnished before the first RA Bill becomes due for payment. In case of increase in contract value, additional 5% of differential amount shall be submitted by Consultant before payment of next RA Bill due.

The Retention amount of 5% of the contract value may be accepted in the following forms: -

- i. Cash (as permissible under the extant Income Tax Act).
- ii. Local cheques of Scheduled Banks (subject to realization)/ Pay Order/ Demand Draft/ Electronic Fund Transfer in favour of BHEL.
- iii. Securities available from Indian Post offices such as National Savings Certificates, Kisan Vikas Patras etc. (held in the name of Consultant furnishing the security and duly endorsed/ hypothecated / pledged, as applicable, in favour of BHEL).
- iv. Bank Guarantee from Scheduled Banks/ Public Financial Institutions as defined in the Companies Act and in line with clause 1.12 of GCC. The Bank Guarantee format for Retention Amount shall be in the prescribed formats. The validity of BG shall be initially for the contract period & shall be extended up to acceptance of final bill if the final bill is not settled during the contract period.
- v. Fixed Deposit Receipt issued by Scheduled Banks/ Public Financial Institutions as defined in the Companies Act (FDR should be in the name of the Consultant, a/c BHEL).
- vi. Insurance Surety Bonds.

Alternatively, on successful bidder's request, the Retention Amount can also be recovered at the rate of 10% of the gross amount, progressively, from each of the running bills of the

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – V: Terms of Payment

Consultant till the total amount of the required retention amount is collected.

In case, Consultant opts cash deduction from RA bills in the beginning & subsequently submit 5% of the Contract Value as Retention amount in any form as mentioned above, then refund of deducted retention amount may be permitted to Consultant.

Note: BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith.

5.5.2 Refund of Retention Amount shall be as follows:

- a) 50% of retention amount shall be released on completion of Contractual obligation & submission of Project closure report, Learning report & Claim report with customer (if any).
- b) Balance 50% of Retention amount shall be released along with last/final bill on Certification from Package Manager regarding successful guidance/handholding during execution of project.

Note: Retention amount shall be released after deduction all expenses/ other amounts due to BHEL under the contract/ other contracts entered into with them (Consultant) by BHEL.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – VI: Exclusions

6.1 The following matters shall be outside the scope of the Services:

- i) Supervision of activities such as Construction, testing & maintenance etc.
- ii) Review of Quality of workmanship of BHEL's Sub contractor/vendor/suppliers.
- iii) Procurement or Sub-contracting on behalf of BHEL.
- iv) Implementation of recommendations.
- v) Security/custody of BHEL assets & inventory.
- vi) Legal services relating to contracting.
- vii) Executing Business Payment Transactions and taxation issues.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – VII: Taxes and Duties

7.0	TAXES & DUTIES
7.1	<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 & 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.</p> <p>However, provisions regarding GST on output supply (goods/service) and TDS/TCS as per Income Tax Act shall be as per following clauses.</p>
7.2	GST (Goods and Services Tax)
7.2.1	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.
7.2.2	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.
7.2.3	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.
7.2.4	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.
7.2.5	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.
7.2.6	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.
7.2.7	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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7.2.8	<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"> 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.
7.2.9	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.
7.2.10	TDS as applicable under GST law shall be deducted from contractor's bill.
7.2.11	Contractor shall comply with the provisions of e-way bill wherever applicable. Further wherever provisions of GST Act permit, all the e-way bills, road permits etc. required for transportation of goods needs to be arranged by the contractor.
7.2.12	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.
7.2.13	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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7.2.14	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.
7.2.15	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.
7.2.16	<p><u>Variation in Taxes & Duties:</u></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>
7.3	<p><u>Income Tax:</u></p> <p>TDS/TCS as applicable under Income Tax Act, 1961 or rules made thereunder shall be deducted/collected from contractor's bill.</p>

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Chapter – VIII: Price Escalation Clause

8.0 PRICE VARIATION COMPENSATION: PVC shall be applicable only for Extended contract period if any.

8.1 In order to take care of variation in cost of execution of work on either side, due to variation in the index of LABOUR Price Variation Formula as described herein shall be applicable

8.2 85% component of Contract 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:

SL NO.	CATEGORY	INDEX/ AVERAGE MINIMUM WAGE	PERCENTAGE COMPONENT ('K')
i)	LABOUR (ALL CATEGORIES)	(a) 'MONTHLY ALL-INDIA AVERAGE CONSUMER PRICE INDEX NUMBERS FOR INDUSTRIAL WORKERS' published by Labour Bureau, Ministry of Labour and Employment, Government of India. (50% weightage out of component 'K') (Website: labourbureau.nic.in)	85
		(b) Arithmetical average of minimum wages of Highly skilled workers as applicable at project site location (50% weightage out of component 'K')	

8.3 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.

$$P = K \times R \times \frac{(X_N - X_0)}{X_0}$$

Where,

- P = Amount to be paid/recovered due to variation in the Index for Labour.
- K = Percentage COMPONENT ('K') applicable for Labour.
- R = Value of the billing month (Excluding Taxes and Duties if payable extra)
- X_N = Revised Index for Labour, Revised Average Minimum Wages for Labour for the billing month under consideration
- X₀ = Index for Labour, Average Minimum Wages for Labour as on the Base date

8.4 PVC shall not be payable for Supplementary/Additional Items, Extra works. However, PVC will be payable for items executed under quantity variation of BOQ items under originally awarded contract.

8.5 Base date shall be the calendar month of the ' Scheduled completion date (i.e., actual start date+ scheduled contractual completion period as per letter of intent/award).

8.6 The Consultant shall furnish necessary monthly bulletins in support of the requisite indices from the relevant websites along with his Bills.

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- 8.7 The Consultant will be required to raise the bills for price variation payments on a monthly basis along with the running bills 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 figure), the provisional values as published can be considered for payments and arrears shall be paid/recovered on getting the final values.
- 8.8 The total amount of PVC shall not exceed 15% of the cumulatively executed contract value. Executed contract value for this purpose is exclusive of PVC, Supplementary/Additional Items and Extra works except items due to quantity variation.