TERMS AND CONDITIONS OF CONTRACT (TCC) (PART-B)

"SOFTWARE BASED ROJECT MANAGEMENT SOLUTION AS PER GIVEN MILESTONES, DELIVERABLES AND DELIVERY TIMELINES FOR THE GIVEN SCOPE OF WORK FOR BHEL CDT/PMG."

BHARAT HEAVY ELECTRICALS IMITED

TERMS AND CONDITIONS OF CONTRACT (TCC)

1.0 OVERVIEW

1.1 Introduction to BHEL

Established in 1964, Bharat Heavy Electricals Limited (BHEL) is the largest engineering and manufacturing enterprise in India in the energy and infrastructure sector with the capability to manufacture the entire range of power plant equipment.

BHEL manufactures over 180 products under 30 major product groups and caters to core sectors of the Indian Economy viz., Power Generation & Transmission, Industry, Transportation, Telecommunication, Renewable Energy, etc. The wide network of BHEL's 17 manufacturing divisions, four Power Sector regional centers, over 100 project sites, eight service centers and 18 regional offices, enables the Company to promptly serve its customers and provide them with suitable products, Systems and services. The high level of quality & reliability of its products is due to the emphasis on design, engineering and manufacturing to international standards by acquiring and adapting some of the best technologies from leading companies in the world, together with technologies developed in its own R&D centers.

BHEL's vision is to become a world-class engineering enterprise, committed to enhancing stakeholder value. The company is striving to give shape to its aspirations and fulfill the expectations of the country to become a global player.

Currently, BHEL has around 100 plus ongoing projects both domestic and overseas

1.2 BHEL Typical Contracts:

Hydro

a. EPC – Engineering, Procurement & Construction is done by BHEL. Civil work is sub contracted.
b. Electro Mechanical – Storage, Material handling, Erection, Testing & Commissioning of Turbine and Generator is done by BHEL.

Thermal

a. EPC – Engineering, Procurement & Construction is done by BHEL. Civil work is sub contracted.
b. BTG – Storage, Material handling, Erection, Testing & Commissioning of Boiler, Turbine and Generator is done by BHEL.

1.3 Information Technology in BHEL

In BHEL, Information Technology has deeply penetrated all the functional areas and it is suitably deployed in various facets of company's operations. The company has substantially introduced IT in its Engineering, Manufacturing, and Materials Management & Production functions. IT initiatives have been taken up so as to meet the emerging demands of the business challenges of the New Economy.

1.4 Infrastructure

All Units and Divisions have their own computing resources as per their perceived needs. Local connectivity of different departments and groups have been achieved through state of the art LAN technologies (Giga Bit Ethernet/ Fiber optics). BHEL has established its Corporate Level Wide Area Network on MPLS based technology linking Manufacturing Units, Service Divisions, Project Sites and offices. This has enabled exchange of information across the Units / Divisions in a secured way. This network MPLS interconnects all locations of BHEL across the country on OFC/RF Links/VSATs.

1.5 Business Applications & Other software used

Integrated end to end Business Applications, largely rendered in web, have been developed and used at various manufacturing units within various processes from receipt of work order to dispatch of equipment.

A number of Web based applications are being developed and implemented in various functions across various Units/Regions/Business Sectors for their local operations. Some Corporate wide web applications have also been developed over a period of time, mostly. RDBMS & J2EE is the favored technology for application development.

All engineering centers are well equipped with engineering workstations using advance Engineering Software for Designing, Modeling, Analysis and Drafting etc. Electronic Depositories, with appropriate work flow & change control, have been implemented particularly for Engineering Documents at major units.

1.6 Information Systems and ERP in BHEL

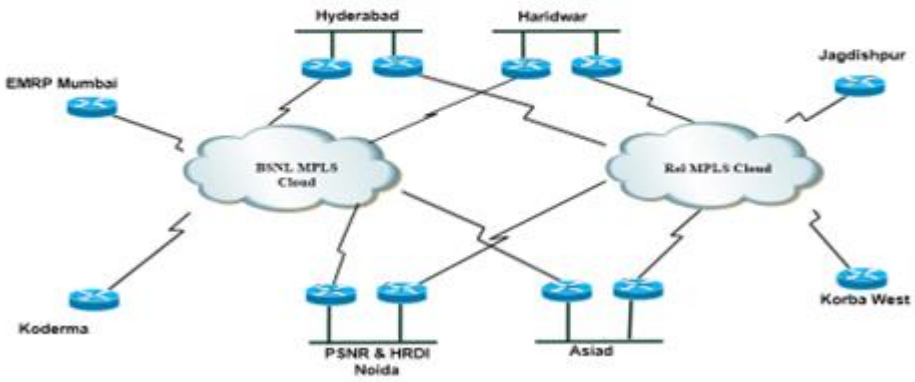
Currently, major Manufacturing Units of BHEL have implemented Information Systems (either based on SAP ERP or developed in-house) to meet their Unit specific business requirements while Business Sectors and other Manufacturing Units/ Divisions and Regions have moderate level of computerization in place.

BHEL has implemented SAP for its unit level operations at Trichy, Hyderabad, EDN Bangalore, EPD Bangalore and HPVP Vizag. Also SAP-HCM module has been implemented in BHEL at Corporate Level.

1.7 Existing Network Infrastructure:

BHEL is using MPLS connectivity from multiple service providers to connect their locations. The BHEL locations are connected through multiple connectivity options with redundancy as required.

BHEL WAN Illustrative Schematic

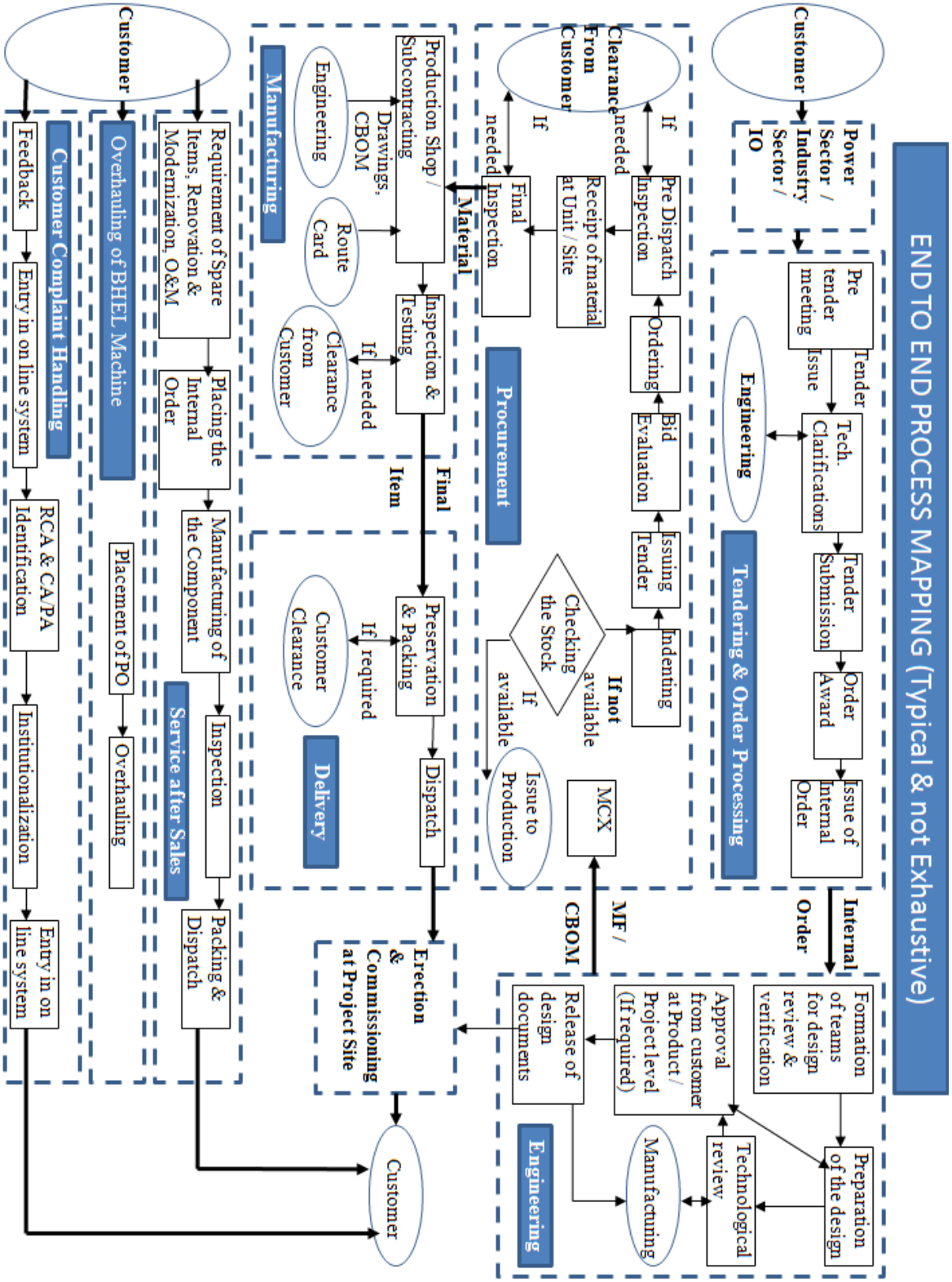


1.8 BHEL Units Study:

A Study of the BHEL Units IT solutions shall be taken up by the Bidders before the Bid so as to get an idea / understanding of the interface requirements and estimate the effort required. The PAN INDIA presence of BHEL is depicted below:

Pan-India Presence

1.9 Life cycle of a typical project in BHEL



2.0 OBJECTIVE

The objective is to be able to deliver the projects in a timely and cost effective manner by comprehensive planning, execution, monitoring, control and project closing. As such BHEL intends to implement a Project Management solution.

3.0 GENERAL SCOPE OF WORK

Milestone	Deliverable / DESCRIPTION of Scope
	The entire scope of work, obligations and deliverables covered in this document and subsequent instructions to the Successful Bidder by the Owner post award shall be deemed to be Successful Bidder's obligation. The scope of work / specifications detailed herein are indicative only. Anything not specifically mentioned but considered essential for effective Project Management shall be deemed to be covered under existing scope without any additional financial implication to BHEL. Successful Bidder shall work in co-ordination with BHEL team and OEM (in case OEM is other than Successful Bidder) for completion of project. The solution should be provisioned on cloud platform. The Solution should include all the required components for successful implementation of the Project.
M1	a. Project Plan and Resource Mobilization b. Provisioning and Configuration c. Implementation d. User Acceptance Test (UAT) – Post Implementation e. Go-Live certificate by the Owner **Project Plan and Resource Mobilization** 1. Submit project plan including governance structure for the project. A Project Manager responsible for execution of the project shall form part of the governance structure. 2. Submit the Organization structure with direct and indirect hierarchical links to its CEO. 3. The project team shall be technically and administratively empowered to decide and act without any delay. **Provisioning and Configuration** 4. The solution should be provisioned on cloud platform. The OEM shall provide the infrastructure requirement / solution sizing for the proposed solution. Successful Bidder shall provision the same on the cloud. 5. The solution shall be configured to ensure technical compliance (As per ***Annexure – 1***). 6. Configuration of Project Management solution (As per ***Annexure – 2***). 7. Each application user shall be provisioned to have a minimum unstructured data storage of 5 GB per user. All other Project data should be over and above this storage. **Implementation** 8. Create the Project template. (Different levels, data requirements, dashboards formats and other formats which are to be decided during implementation). Provide the data templates for Project Master Data. 9. Create the roles and responsibilities.

	10. Create Users as per BHEL requirement (as per ***Annexure - 4)*** and assign roles. 11. Load the initial Project data (Project network, baseline, current status etc.). This is to be done for 5 identified projects. 12. Make the system operational. Make the Top Management Dashboards available. **User Acceptance Test (UAT) - Post Implementation** 13. To ascertain whether the implemented solution meets the requirements (as indicated in the Technical Specifications as per ***Annexure – 1*** and the Functional Specifications as per ***Annexure – 2)*** by the owner, the UAT shall be conducted for 2 days. 14. If the implemented solution is not able to meet UAT, the Successful Bidder shall rectify / fine tune solution. 15. Once the Successful Bidder offers the system for testing again, the systems shall be tested again for 2 days. 16. If after the 2nd testing, the implemented solution is not able to meet UAT, the supplied system is liable to be rejected. Subsequently the Bank Guarantee may be forfeited and Order cancelled. **Go-Live Certificate by the Owner** 17. On successful UAT, the successful bidder shall submit a project report having the following: a. Configuration and User Manuals. b. Security scheme for entire solution. c. Disaster Recovery plan and Backup configuration. 18. On submission of the project report as above, BHEL will issue a Go-Live Certificate mentioning the Go-Live date.
M2	a. Interfacing with Unit's applications b. Trainings **Interfacing with Unit's applications** 1. Study the Units / Sites data interface requirements (in line with ***Annexure – 3***) 2. Create the interfaces for Units' applications to interact with the proposed solution. 3. Implement the functional requirements (as per ***Annexure - 3)*** **Trainings** 4. All the trainings should be conducted at BHEL premises. The boarding and lodging of trainer faculty will be the responsibility of the successful bidder. 5. The training course shall be approved by the owner. 6. The faculty for all the trainings shall be OEM certified. 7. Training of all the features and their administration. a. Administration Module : 2 batches, 2 days each b. Project Creation & Mgmt. : 4 batches, 2 days each c. Project Update : 8 batches, 2 days each

M3	a. Roll out for other Projects b. Monitoring and Support c. Transitioning / Exit d. Project Completion Report **Roll out for other Projects** 1. Rolling out the solution for other Projects (in line with ***Annexure – 2*** and ***Annexure – 3.***). **Monitoring and Support** 2. The Solution must be available as Mobile App on Mobiles (Android, iOS etc) for Dashboard and data update. 3. The Successful Bidder should perform (at least once a year) health check-up and fine tuning of Solution, if required. 4. The Successful Bidder should generate and submit the SLA Monitoring report in the end of every month to BHEL. 5. In case of default on any of the service level metric, the Successful Bidder shall submit performance improvement plan along with the root cause analysis and implement the plan after BHEL's approval. 6. The Successful Bidder shall provide a console to view and monitor the infrastructure / resources provisioned. **Transitioning / Exit** 7. The Successful Bidder shall ensure that No data is deleted at the end of the Contract for a minimum duration of 60 days beyond the expiry of the Contract period. 8. The Successful Bidder shall be responsible for providing the tools for import / export of VMs / Application Instance and content including data, documents etc. 9. The Successful Bidder shall be responsible for preparation of the Transition / Exit Management Plan and carrying out the transition. 10. The Transition / Exit Management Plan shall deal with the following aspects: a. Transition of Managed Services b. Migration from the incumbent cloud service provider's environment to the new environment / solution. 11. The Successful Bidder shall carry out the migration of the VMs, data, content and any other assets to the new environment created by BHEL or any other Agency (on behalf of BHEL) on alternate cloud service provider's offerings / BHEL's premise to enable successful deployment and running of the Project Management solution on the new infrastructure. 12. The Successful Bidder shall ensure that all the documentation required for smooth transition are kept up to date and all such documentation is handed over during the transition. **Project Completion Report** 13. Submission of detailed Project Completion Report in 2(two) bound volumes and 1(one) soft copy in covering but not limited to actual mapped details (events, milestones, output performance key parameters). 14. The exact format and details of the report would be informed by the Owner during execution for compliance by the Successful Bidder.

4.0 TIME SCHEDULE

4.1 Contract Period

BHEL intends to implement the Project Management solution initially for a period of five (05) years after the commencement of Subscription period, extendable up to seven (07) years.

The owner may extend the Project Management solution @12% (of the Project Management solution cost for a period of 05 years) per year for two (02) years on annual basis after the end of initial five (05) years.

4.2 Milestones, Deliverables & Delivery Timelines:

Milestone	Deliverable	Timelines Start	Timelines End
M1	a. Project Plan and Resource Mobilization b. Provisioning and Configuration c. Implementation d. User Acceptance Test (UAT) – Post Implementation e. Go-Live certificate by the Owner	D	D + 60 Days
M2	a. Interfacing with Unit's applications b. Training	P	P + 120 Days
M3	a. Roll out for other Projects b. Monitoring and Support c. Transitioning / Exit d. Project Completion Report	S	S + 5 years
D – Date of award of LOI / PO to the successful bidder P – Go-Live date S – Date of Subscription period start (After completion of M2)			

NOTE: A Deliverable, Scope of Work should be compliant to specifications, contract and in the manner accepted by BHEL.

5.0 Terms of Payment:

As per Clause 6.0 of SCC.

6.0 Execution of Work:

6.1 All the services / Items must be supplied in full and complete. The solution shall be from single OEM.

6.2 No services / items shall be offered whose end-of-sale or end of life has been declared by the OEM or has been declared to be under phase out.

6.3 The rates will be valid for seven (07) years from "Date of Subscription period start – S".

6.4 Any items / services purchased in the name of BHEL shall be handed over to the Owner at the end of the Contract.

6.5 The bidder must submit a certificate of no conflict through authorized signatory confirming that there would be no conflict of interest with BHEL. Bids of any Bidder may be rejected if a conflict of interest between the Bidder and BHEL is detected at any stage.

Conflict of interest may arise under following circumstances:

- If any competitor of BHEL has stake in Bidder's organization. Competitors will be defined as companies working in the same field as that of the product/project line of BHEL and is working in the same territory as that of BHEL.
- If the executive management of Bidder is related to executive management of BHEL.
- If any subsidiary, associate or affiliate of the Vendor (whether OEM or SI) bids in the same tender & its parent organization and/or affiliate/associate/subsidiary is participating as an entity in this tender.

No claims / correspondences later or during the bidding process in any form shall be considered from any vendor / bidder who have not participated in owner's bidding process and not submitted its bid as per Tender requirements.

7.0 Compliance for Technical Specifications [Annexure-1]:

S.No.	Specification	Bidder Compliance (Yes / No)
Product Offered:……		
	General	
1	Online reports of network and application uptime for the Project Management solution should be available.	
2	In case of no connectivity, i.e. offline mode, the solution shall cache all the offline transactions and commit the data once the connectivity is available.	
	Availability	
1	Application shall be available more than 99.5% uptime on 24X7 per month basis.	
	Performance	
1	Infrastructure sizing / provisioning on cloud shall be as proposed by the OEM for the solution.	
	Backup and Disaster Recovery	
1	Recovery Point Objective (RPO) shall be zero. Hence there should be zero data loss.	
2	Recovery Time Objective (RTO) shall be 30 minutes.	
	Support	
1	A 12X7 Helpdesk shall be available for logging technical issues and their resolution.	
	Information Security	
1	The application should be available on HTTPS.	
2	The cloud should be MeitY empanelled. (Please provide the Certificate to this effect)	

8.0 Compliance for Product/Functional Specifications-I [Annexure-2]:

Sl. No.	Functional Requirements	Bidders Compliance (Yes/No)
Planning and Execution Requirements		
1	Defining Portfolio (Business vertical) and Programs which is a group of similar projects	
2	Create/define Work Breakdown structure (WBS) consisting of Project activities w.r.t responsible BHEL units/departments, deliverables, start and end dates, w.r.t. contractual (L1 & L2) timeline	
3	Define projects, sub-projects, Phases, Gates, Milestones, Tasks/activities, durations, resources and the dependencies between these as per Project Need	
4	Development of integrated master schedule (L1 & L2 schedules- to be planned at project manager level at start of project). These are to act as baseline for the project.	
5	Generating multiple baselines (L1 & L2 schedules), without any limitations.	
6	Creation of multiple templates of Work breakdown structure, project information template such as for schedules (for all levels of planning, L1, L2), phases, gates, milestones, and tasks with dependencies and responsible roles, storing content, document templates and resource plans, for ready reference and use across projects/programs/portfolios	
7	Provide in-built processes to capture project related data & status updates from different BHEL units/departments/engineering centres and automatically integrate with the master schedule to provide clear visibility/projection of project progress, at any given point of time, in terms of defined parameter (eg. percentage completion) and end-date forecast.	
8	Automatically update progress in the project, on the basis of project tasks/activities being updated at various centres of BHEL (as per point no. 7) and provide clear visibility/projection of the project progress in the master schedule, in terms of defined measurable parameters e.g., percentage completion, etc. and end date forecast. It should also provide approval options during planning and updation of activities or plans.	
9	Accommodate large number of users who will be using the system simultaneously, from various geographical locations, for activities such as planning, updation, etc.	
10	Manage permissions and controls (role based permissions for user access, delegations, modification in privileges, etc.)	
11	Capability of accommodating, collecting, linking, sequencing, updating, summarizing, analysing and carrying out various other operations, as desired in this document, on a large number of activities/data (for each project, the number of activities/data may range upto 1,00,000 or above)	
12	System can be used for controlling plan creation, modification and deletion, without any restrictions on number of work plans and baselines.	
13	Provide project baseline tracking, version control, audit trail and plan history, without any restrictions on number of work plans and baselines. In addition to monitoring overall project progress, system should also be capable to monitor	

	sub-projects, milestones and work packages, separately. Documentation of all these plans should also be done.	
14	For the purpose of providing measurement, as per the defined parameter (such as percentage progress) in an activity/task, so that this progress is reflected in the master schedules, system should allow Project Manager to identify whether a task progress will be quantity driven or % complete update. If the task is identified as Quantity based progress, then project manager will define the scope quantity for the task and assignee will update the finished quantity. System will automatically update task progress based on completed quantity entered by task assignee).	
15	Task duration can be defined in terms of days or hours	
16	System should allow to define all four types of dependencies (Finish-to-start, Start-to-finish, Start-to-start and Finish-to-finish) along with leads, lags. It should support multiple relationships between activities.	
17	System should allow all important constraints on task dates (As Soon as Possible, As Late as Possible, Start No Earlier Than, Finish No Earlier Than, Start No Later Than, Finish No Later Than, Must Finish On, Must Start On, etc.)	
18	Calendars: System should support following capabilities in Calendars:	
	· Flexible working hours, days and vacations per calendar since this varies from project to project	
	· Multiple calendars on company, project and task	
	· Recurring Holidays and Exceptions	
	· Schedule projects taking into account multiple calendars	
	· Exceptions can be added to a calendar to accommodate unusual events	
19	System should be capable of accommodating large number of projects, across various portfolios and programs with simultaneous operations in large number of projects.	
20	Generating scenarios (what-if analysis) due to fast tracking or crashing of activities, to aid decision making. For the purpose, system should be able to provide visibility of all the paths automatically and sort it in terms of remaining duration or float of each path.	
21	For the purpose of analysing the project progress at any given point of time, system should be capable of generating various charts/reports, viz. Gantt chart, critical path, S-curves, etc. This charts, at any given point of time, be converted into report and archived for use in future for purposes such as delay analysis, etc.	
22	When assessing details of activities, each activity to display predecessors and successor activities along-with responsible agencies for all these activities	
23	Capability of creating multiple alternate plans and check alternatives, compare an alternate plan with current schedule, another Baseline or another alternative plans (ability to filter the comparison to see only the difference) and merge changes from alternate plan to master plan. Documenting all these plans and storing them in form of templates also.	
24	Generate daily/weekly/monthly progress report and three months rolling plan. The report will be decided during implementation.	
25	System to have ability for defining dashboards, which can be at Portfolio, Program, Project or BHEL internal business unit level and operationalization of the same based on updations being done as mentioned in above points.	
26	Allow formation of BHEL project team, defining activity owners, modification of the team at any stage of the project and communication of the same to all the	

	team members/concerned, as defined in the system. Capability to provide or remove approval rights.	
27	Define methodology and the concerned, for raising alerts, reminders and escalation for activities in a project. System should be capable of raising automated proactive alerts, priority-wise, for all level of users with drill-down into priority areas.	
28	System should be capable of managing changes through following process:	
	· Defining change needed (viz. change in scope (including scope transfers within BHEL internal units/departments), task duration, scheduling, etc.)	
	· Assessing the impact of change on project timelines or any other risks (by process of creating alternate plans and comparing, as detailed in 1.23)	
	· Approval/rejection of change	
	· Integration of change in the schedule and creation of version	
	· Communication of change to the working team	
	· Documentation of change, its details and version	
	· Revision of master plans (L1 & L2) and record keeping thereof.	
29	For capturing the progress in ordering processes for packages, being done by BHEL site execution units/departments, an in-built processes to capture status of activities viz. indenting, tendering, evaluation, order placement, etc. to be provided in the system. The progress so captured to be integrated with the master schedule (L1 & L2) for updating of progress of overall project.	
30	Top-down and bottom-up visibility for planners and project managers	
1	**Issue management:**	
1.1	· Allow to associate issues to activities/tasks in a project	
1.2	· Generate, tag, upload and track various issues, till they are solved. The status of various issues is made available to various users	
1.3	· Ability to define methodology and the concerned users, for raising alerts, notifications and escalation, when an issue is raised	
1.4	· Automated alerts, notifications, reminders and escalation, when an issue is raised through the system.	
1.5	· System should have Integrated Issue Management with issue closure lifecycles and functions (Category, classification, priority, issue type, date of resolution, assignees, reported against, resolved by, resolved items, Workflow, Discussions)	
1.6	· Should be capable of archiving issue history (issues, its type, activities against which raised, resolution timeline, resolution and overall impact had on the project)	
2	**Risk Management**	
2.1	· Capability to associate risks to Project schedule	
2.2	· Ability to categorize Risks under various categories like Financial, Technical, Resource etc.	
2.3	· Ability to quantify and prioritize (in order of priority for actions required for mitigation) project risks	
2.4	· Define the risk priority - combination of probability of occurrence and impact of risk to prioritize risks	
2.5	· Support project risk assessment (based on definition provided or historical data) and risk mitigation plan	

2.6	· Centralized RAID log- Risks, Actions, Issues, Decisions	
2.7	· Ability to support risk monitoring and on-going multi-project risk management	
2.7.1	-- Trend analysis of risk occurrence in the project	
2.7.2	-- Automated alerts, notifications, reminders and escalation.	
2.7.3	-- Monitor risks with real-time dashboards	
2.7.4	-- Should be capable of archiving risk history (risks, its type, activities against which were affected, mitigation and overall impact had on the project)	
Documentation Management		
1	Document management should be an integral part of project management system and should not be a standalone application	
2	The system should provide capabilities for revision and version control of various document types.	
3	System should give the facility to maintain a library of Standard Document templates. User should be able to download these templates for creating actual project specific documents which can then be maintained as Project Documents.	
4	The platform should have a powerful search capability which can read through and index the content of a readable document. The user should be able to type in free form the search content and the documents containing this content should surface in the search results.	
5	User should have the facility to create custom tags to the documents so that the same document can be remembered/searched by various users easily using the tags.	
6	Platform should store the audit trail	
7	User should be able to checkout and lock the documents and save them in local machine. User can work on documents offline and check-in back new versions of the documents in system. Audit trail of the entire process should also get recorded	
8	Ability to archive project, portfolio data with the capability for retrieval at a later date for purpose such as analyzing, reference, etc.	
9	Project-wise folders for storing data/records viz. letters, protocols, minutes, etc. with facility of sorting out w.r.t. activity, milestone, project, etc.	
10	System should allow to cut and paste, drag and drop of the documents and sub folders from one folder to other folder within same project.	
11	Documentation of records and communications, as mentioned in the different requirements, as desired through this document.	
Project Closure		
1	System should allow the user to create and track a closure report where user can capture the relevant information to initiate the closure process. Project closure report as a document.	
2	System should have the capability to conduct a post closure impact analysis and review through report. Format to be decided during implementation	
3	Ability to support verification of project deliverable acceptance criteria as a document.	
4	Ability to support post-implementation reviews and lessons learned.	

5	Ability to support project management knowledge database (data storage and mining).	
Other Requirements		
1	The platform should be web based and provide access to end user on multiple devices – workstation, tab, mobile using standard browsers/Apps.	
2	Full Text Search based on following tags	
2.1	• Who (Originator, Responsible)	
2.2	• When (Creation Date, Modification Date)	
2.3	• What (Document Type, Maturity State, Library, Language etc.)	
2.4	• Where (Folder where it resides etc.)	
3	Perform diagnostic, trend analyses and other statistical analysis on past and ongoing projects with the ability to answer specific questions	
4	Ability to support real-time group communication (e.g., on-line chats, discussion forums, instant messaging).	
5	Ability to support mass communication and notification (e.g., via a home page bulletin board, mass emails, etc.).	
6	Ability to provide targeted communications and notifications (e.g., selective, rule-based notifications via email)	

9.0 Compliance for Product/Functional Specifications-II [Annexure-3]:

Sl. No.	Functional Requirements	Bidders Compliance (Yes/No)
In addition to functional requirements in M1 following to carried out in M2.		
Planning and Execution Requirements		
1	Development of sub-plans/schedules (L3 and below- to be planned at either project manager level or package/system/product owner level either during initial stage or at any stage during execution of the project), in line with master schedule (L1 & L2) and integration/synchronization of these with the master schedule. The activities in these sub-plans/schedules should be linked with the master schedule so that master schedule changes due to any change (addition, modification, deletion, etc.) in activities of sub-plans/schedules. These are to be execution level plan in which the daily progress updates seamlessly gets converted into impacts at L1 & L2 plan automatically and display projections regarding expected project completion.	
2	Generation of multiple templates of all levels of schedules (L3 and below)	
3	Fetch data automatically (required for updation of schedules), by way of integration with existing systems (being used for various functions viz. engineering, manufacturing, procurement, supply, financial, material management, vendor management, etc.) in BHEL which are spread across various geographical locations and having features different from each other. Wherever such systems are unavailable, system should have in-built processes to capture status of activities.	
4	After achieving the integration, as desired above, the system should be able to update progress in the project, on the basis of project tasks/activities being carried out through existing systems and processes, automatically, on real-time and provide clear visibility/projection of the project progress in the master schedule, in terms of per defined parameter (such as percentage completion, etc.) and end date forecast. In addition to master schedule, monitoring of sub-projects, milestones and work packages can also be done, separately. It should also provide approval options during planning and updation of activities or plans.	
5	Progress reporting to be done through the system. For the purpose of providing measurement for progress reporting, as per the defined parameter (such as percentage progress) in an activity/task, so that this progress is reflected in the master schedules, system should allow Project Manager to identify whether a task progress will be quantity driven or % complete update. If the task is identified as Quantity based progress, then project manager will define the scope quantity for the task and assignee will update the finished quantity. System will automatically update task progress based on completed quantity entered by task assignee.	
6	When assessing details of activities (in all levels of plans), each activity to display predecessors and successor activities along-with responsible agencies for all the activities.	

7	System should be capable of accommodating, collecting, linking, sequencing, updating, summarizing, analysing and carrying out various other operations, as desired in this document, on a large number of activities/data (for each project, the number of activities/data may range upto 1,00,000 or above) which are fetched as from existing systems of BHEL, as desired in points above.	
8	For the purpose of analysing the project progress at any given point of time, in addition to the charts mentioned in M1, system should be capable of generating various other charts/reports, viz. PERT charts, multiple float paths, variance analysis, schedule performance index, trend analysis, S-curves. This charts, at any given point of time, be converted into report and archived for use in future for purposes such as delay analysis, etc.	
9	System to have ability for defining dashboards, which can be at Portfolio, Program, Project or BHEL internal business unit level.	
10	System should utilize business intelligence to provide dashboards (using various graphical and other types of representations), depicting progress in projects, based on key performance indicators for various levels with ability to drill down at lowest level of activities.	
11	System should provide for multiple programs and projects view in various formats for users. System should utilize business intelligence to provide for dashboards at portfolio and program levels.	
12	The system should have the ability for e-measurement for capturing the work-progress by vendors at site and generation of measurement book, which may be used for the purpose of billing by the vendor.	

Risk and Issue Management

	In addition to requirements in M1	
1	**Issue management:**	
1.1	· Should be capable of archiving issue history (issues, its type, activities against which raised, resolution timeline, resolution and overall impact had on the project) and ability for trend analysis for early detection and mitigation in a single project as well as in/across other projects.	
1.2	· Ability to analyze and generate report on issues occurring across projects, portfolios or programs which may require management level decisions	
2	**Risk Management**	
2.1	-- Should be capable of archiving risk history (risks, its type, activities against which were affected, mitigation and overall impact had on the project) and ability for trend analysis for early detection and mitigation in a single project as well as in other projects.	
2.2	-- Ability to analyse and generate report on risks occurring across projects, portfolios or programs which may require management level decisions.	

Resource Management		
1	Ability to assign and schedule resources to be used at project site: • System should allow defining one or more contracts for the site work being executed for the projects. • System should allow to create a library of Skills like labor, welder etc. • System should allow to create a library of equipment types like cranes, dumper etc. • Against each contract, Project Manager should be able to define the type of equipment and type of people required to execute the contract. • Project manager should be able to define the number for each type of equipment and type of people in weekly time slots. • Once the work is started at site, Site manager should be able to create a weekly report of available resources at site in terms of number of resources against each type of equipment and person. • System should generate a graphical report of planned resources vs actual resources.	
2	Ability to view resource assignments project-wise and should provide priority of resource across the portfolio	
3	Ability to manually change to resource assignments for individual projects after project initiation.	
4	Ability to summarize utilization levels by resource category and over time. Should be able to support resource optimization techniques such as resource loading, resource levelling, etc.	
5	Ability to compare resource supply-demand by resource category and identify gaps, bottlenecks, and over-allocated resources.	
6	Ability to provides dashboard view with drill down to individual resource availability (e.g., by time, location, assignments, etc)	
7	Ability to support a formal resource request system (preparation of requests, aggregate views by demand categories and over time, etc.)	
Cash Flow Management		
1	Ability to plan, manage and track project financials in an effective and user-friendly way. Create project budget templates.	
2	Ability to capture budget, planned and actual costs against project as per defined periods (linked to project schedule), viz. project life-cycle, project phases, weekly, monthly, quarterly, yearly.	
3	Ability to compare cumulative costs across a time period for trend and variance analysis	
4	Ability to generate graphical Summaries, to be used in dashboards and reporting purposes	
5	Ability to generate reports such as Planned Vs Actual expenditures under different cost items, Project phase-wise etc.	
6	Ability for budget allocation roll down, and expense rollup in Project and Project phase wise	
7	Ability to support multiple currencies, at transaction & project level, for purpose of carrying out above tasks.	
8	Ability for creating Dashboards for reporting cost and budget	
9	Ability to monitor project costs/budget	

10.0 Compliance for Users (Roles and Numbers) [Annexure-4]:

S.No	User Roles	Need from the application	No of users
1	Top Management	1. Can view relevant projects details 2. View Reports & Dashboards 3. Drill down dashboards till the lowest level of transaction.	50
2	Project Managers/Site Managers (Should be able to carry out the activities for Project Management)	1. Can view relevant projects 2. Create Projects/Sub Projects 3. Update/Modify Project/sub project 4. Prepare project plan schedule (L1/L2/L3, etc.) 5. Build team on project 6. Assign team members to activities 7. Baseline Project schedule 8. Publish Project schedule 9. Approve assignments 10. Monitor Project 11. Manage Risks 12. Manage Issues 13. Collaborate with Team 14. Plan other project related activities 15. Modify plans at various levels 16. Drill down dashboards till the lowest level of transaction. 17. Cash Management	300
3	Team Members	1. Update assignments 2. Save and submit assignments for approval 3. Collaborate with project team 4. Update assigned risks/issues	600

Note: The owner may ask for additional 10% of each type of user as given above. The successful bidder shall provide the same at no extra cost.

11.: Non-Disclosure Agreement [Annexure – 5]

This Agreement is made and entered into as of the last date signed below (the "Effective Date") by and between **Bharat Heavy Electricals Ltd.(BHEL),** a Public Sector Organization having its principal place of business at BHEL House, Siri Fort, New Delhi - 110049 and _____, a _____ corporation, hereinafter called "The Bidder", whose principal mailing address is _____ .

WHEREAS in order to pursue the mutual business purpose of this particular project as specified in Bid document to implement a Project Management solution, **BHEL** and the Bidder have an interest in participating in discussions wherein either Party might share information with the other that the disclosing Party considers to be proprietary and confidential to itself ("Confidential Information"); and

WHEREAS the Parties agree that Confidential Information of a Party might include, but not be limited to that Party's:

1. business plans, methods, and practices;
2. personnel, customers, and suppliers;
3. inventions, processes, methods, products, patent applications, and other proprietary rights; or
4. specifications, drawings, sketches, models, samples, tools, computer programs, technical information, or other related information;

NOW, THEREFORE, the Parties agree as follows:

1. Either Party may disclose Confidential Information to the other Party in confidence provided that the disclosing Party identifies such information as proprietary and confidential either by marking it, in the case of written materials, or, in the case of information that is disclosed orally or written materials that are not marked, by notifying the other Party of the proprietary and confidential nature of the information, such notification to be done orally, by e-mail or written correspondence, or via other means of communication as might be appropriate.
2. When informed of the proprietary and confidential nature of Confidential Information that has been disclosed by the other Party, the receiving Party ("Recipient") shall, for a period of three (3) years from the date of disclosure, refrain from disclosing such Confidential Information to any contractor or other third party without prior, written approval from the disclosing Party and shall protect such Confidential Information from inadvertent disclosure to a third party using the same care and diligence that the Recipient uses to protect its own proprietary and confidential information, but in no case less than reasonable care. The Recipient shall ensure that each of its employees, officers, directors, or agents who has access to Confidential Information disclosed under this Agreement is informed of its proprietary and confidential nature and is required to abide by the terms of this Agreement. The Recipient of Confidential Information disclosed under this Agreement shall promptly notify the disclosing Party of any disclosure of such

Confidential Information in violation of this Agreement or of any subpoena or other legal process requiring production or disclosure of said Confidential Information.

3. All Confidential Information disclosed under this Agreement shall be and remain the property of the disclosing Party and nothing contained in this Agreement shall be construed as granting or conferring any rights to such Confidential Information on the other Party. The Recipient shall honor any request from the disclosing Party to promptly return or destroy all copies of Confidential Information disclosed under this Agreement and all notes related to such Confidential Information. The Parties agree that the disclosing Party will suffer irreparable injury if its Confidential Information is made public, released to a third party, or otherwise disclosed in breach of this Agreement and that the disclosing Party shall be entitled to obtain injunctive relief against a threatened breach or continuation of any such breach and, in the event of such breach, an award of actual and exemplary damages from any court of competent jurisdiction.

4. The terms of this Agreement shall not be construed to limit either Party's right to develop independently or acquire products without use of the other Party's Confidential Information. The disclosing party acknowledges that the Recipient may currently or in the future be developing information internally, or receiving information from other parties, that is similar to the Confidential Information. Nothing in this Agreement will prohibit the Recipient from developing or having developed for it products, concepts, systems or techniques that are similar to or compete with the products, concepts, systems or techniques contemplated by or embodied in the Confidential Information provided that the Recipient does not violate any of its obligations under this Agreement in connection with such development.

5. Notwithstanding the above, the Parties agree that information shall not be deemed Confidential Information and the Recipient shall have no obligation to hold in confidence such information, where such information:

   5.1. Is already known to the Recipient, having been disclosed to the Recipient by a third party without such third party having an obligation of confidentiality to the disclosing Party; or

   5.2. Is or becomes publicly known through no wrongful act of the Recipient, its employees, officers, directors, or agents; or

   5.3. Is independently developed by the Recipient without reference to any Confidential Information disclosed hereunder; or

   5.4. Is approved for release (and only to the extent so approved) by the disclosing Party; or

   5.5. Is disclosed pursuant to the lawful requirement of a court or governmental agency or where required by operation of law.

6. Nothing in this Agreement shall be construed to constitute an agency, partnership, joint venture, or other similar relationship between the Parties.

7. Neither Party will, without prior approval of the other Party, make any public announcement of or otherwise disclose the existence or the terms of this Agreement.

8. This Agreement contains the entire agreement between the Parties and in no way creates an obligation for either Party to disclose information to the other Party or to enter into any other agreement.

9. This Agreement shall remain in effect for the entire contract period unless otherwise terminated by either Party giving notice to the other of its desire to terminate this Agreement. The requirement to protect Confidential Information disclosed under this Agreement shall survive termination of this Agreement.

IN WITNESS WHEREOF:

FOR AND ON BEHALF OF **FOR AND ON BEHALF OF**

_____ **BHARAT HEAVY ELECTRICALS LTD.**

Signature: _____ **Signature:**_____

Name: _____ **Name:** _____

Designation: _____ **Designation:** _____

Date: _____ **Date:** _____

Witness **Witness**

1. 1.

2. 2.