REQUEST FOR QUOTATION							
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BHARAT HEAVY ELECTRICALS LIMITED Electronics Division PB No. 2606, Mysore Road Bangalore - 560026 INDIA		`ED 0026	RFQ NUMBER: JKD0000113 RFQ DATE : 29.11.2019		Due Date/Day: 16.12.2019 MON Time : 13:00 HRS Tender Box : Reception Area Opening Venue: NEW ENGG. BLDG		
(addre	ess for comn	nunication) :			(f	for all correspon	dence)
	P P F E				hone : 9972060315 ax : -mail: doraisingh@bhel.in		
Sl No.		Description	Qty	Un	it	Delivery qty	Delivery Date
1	DA06595: * HSN/SJ Doc No AS PER CMIMS SOFTWA COLLEC COMPLI PROJEC	57717 CMIMS SOFTWARE FOR TUTICORIN PROJECT AC : 9032 PS4042753 Rev - 01 PS4042753 , WHICH INCLUDES SUPPLY OF ARE,INSTALLATION,CONFIGURATION,DATA CTION AND COMMISSIONING OF ETE CMIMS PACKAGE FOR TUTICORIN T(1X525MW)	1	ST	r 1		27.01.2020
Total	Number of	of Items - 1	-				
1. 2.							
TWO PART BID - SUBMIT TECHNICAL AND PRICE BID IN SEPARATE SEALED COVERS							
NOTES					F	or and On behal	f of BHEL.
 NOTES. 1. This RFQ is governed by: a) INSTRUCTIONS TO BIDDERS/SELLERS and GENERAL CONDITIONS OF CONTRACT FOR PURCHASE available at http://edn.bhel.com (RFQ-PO Terms & Conditions) b) Any other specific Terms and Conditions mentioned. 2. Bidders / Representatives who would like to be present during opening of offers are required to furnish authorization letter for the same. 				Doraisingh J K Control Equipment 1 OF 1			

 \ast The HSN/SAC no mentioned against the line items in the RFQ are indicative only.

Dtd. 22-Nov-2019

Pre-Qualification Requirements (PQR) of Bidders for CMIMS System, as a part of Offer:

PRO clause		
	Documentary evidence	Vendor compliance (ves/no/remarks)
 The vendor shall be an Original Equipment Manufacturer (OEM) or their authorized dealers in India. If an agent/vendor submits bid on behalf of the principal/OEM, the same 	1. An authorization letter from OEM to be submitted in case of authorized dealer.	1. Authorization letter attached as part of PQC (Yes / No)
agent/vendor shall not submit a bid on behalf of another principal/OEM in the same tender for the same item/product.		2. Software Quoted:
3. The offer shall be only for Standard Catalog Items from the manufacturer and not custom-made .	Standard Catalogs and Datasheets of the manufacturer for all the items in line with specification to be provided as part of technical offer.	Documentary evidence provided as part of technical offer (Yes / No)
4. Foreign OEM shall have Authorized India dealer(s) / representative(s) for after sales service and support	The authorization letter for the dealer/representative shall be provided	Authorization letter attached as part of PQC (Yes / No)
representatives shall have trained engineers in India for commissioning and service for the offered items and shall be in a position to provide prompt after sales services and spares support for our installations.		Compliance to the PQC clause (Yes/ No)
6. The vendor shall be in a position to undertake AMC or provide service support for the items supplied, after the expiry of the warranty / guarantee period either directly or through a service representative.		Compliance to the PQC clause (Yes/ No)
 7. Experience in last 5 years supplying/implementation the product(CMIM software) for min 3 projects in India in one of the following areas 1) Utility Power stations , (Thermal/Hydro/Gas) 2) Process industries like Oil & Gas 3) Engineering and construction/Maintenance company 	Submit reference list of Projects wherein offered system is supplied. Also copies of purchase order and dispatch documents should be mandatorily furnished for proof of the above.	a) Provided PO copies, dispatch documents OR commissioning/installation certificate/MOM as proof of commissioning. This to be as a part of PQC (Yes/ No)
Total number of assets to be min 10000		

Before submission of offer for Technical/commercial clarification, please contact/discuss with BHEL-Engg (080-26998691,26989563)/MM (080-2699 8057) Department for clarification if any.

Note:

Vendor has to submit **credentials** for onward submission to END USER for their review and approval. Offer shall be technically acceptable based on **Make** approval from End user(customer) and **technical scrutiny/evaluation** of the offer.

ANNEXURE TO OPEN TENDER RFQ

for CMIMS - TUTICORN

Offers to be submitted in three parts.

- 1. Pre-qualification requirement
- 2. Technical bid,
- 3. Price bid.

The technical specifications for the RFQ shall be as below.

- 1. The bidder shall supply & carry out activities as per our specification PS4042753 rev 01
- Successfully fulfilled pre qualification requirements vendors offers only will be considered for next level evaluation i.e technical & price.

In case bidder does not submit details mentioned in above clauses or meet the requirements of PQR & technical specifications, offers will be summarily rejected and bidder's offers/proposals will not be evaluated.

The commercial terms and conditions for the RFQ shall be as below.

1. As per instruction to bidders/sellers & general conditions of contract for purchase available at http://edn.bhel.com (RFQ-PO terms & conditions).

		A4-10 Computerized Ma Manage 1x525 MW M		intenance and Inventory		ventory	PS4042753]
				ement			REV No. : 01		1
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COPYRIGHT AND CONFIDENTIAL The information contained in this document is the property of BHARAT HEAVY ELECTRICALS LIMITED	i his must not be used directly of indirectly, in any manner detrimental to the interest of the company	PROJECT CUSTOME SYSTEM	: 1x52 R (END USER) : M : Com Manaç	25 MW M N/s SEPC puterize gement	IEIL TUTICO POWER PV d Maintena System(CN	RIN TPP /T. LTD nce and Inv IIMS)	rentory		
					DRN.	NAME	SIGN	DATE	
		Purchase	e Specification	Dept Code]
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				APPROVED	KALIDAS PAL		22.11.2019		



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REVISION HISTORY SHEET

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REV No.	DATE	NATURE OF CHANGE	REASON	PREPARED BY	REVIEWED BY
00	06-JAN-2018	FIRST ISSUE		ST	KP
01	22-nov-19	Generally modified		ST	KP



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1. Scope :

Project: 1x525 MW MEIL TUTICORIN TPP, Site Location: Tuticorin, Tamilnadu.

A completely integrated Computerized Maintenance and Inventory management system (CMIMS) with relevant data bases completely populated and system customized for power plant application shall be provided. The system to be provided shall include all necessary software, firmware and interfaces required for implementing a fully functional CMIMS system suitable for integrated maintenance management function for a modern power generation utility. The scope of work is as follows:

BHEL Scope	CMIMS Vendor Scope
Network backbone (including network	
switches/Firewall, LIUs, UTP/fiber patch	
cables, etc.) for interconnection of CMIMS	
Clients to the Servers	
Wall mount Network Enclosures-10 Nos. (for	
mounting of network switches)	
Fiber Optic Cables for interconnection of	
remote locations to CCR/CER area	
Computer Tables, Printer table and Chairs	
Station LAN Panels NWPS01 which will	
provide power distribution for 2 Nos.	
CMIMS Servers and 05 Nos. Clients in	
CCR/CER Area	
CMIMS Servers (2 Nos.) with Windows	CMIMS Server Software supply, configuration, data
Server 2012/2016 OS preloaded	collection and implementation.
CMIMS Client hardware (25 Nos PC) with	To install client software, do setting if any. To make
Windows 10 OS preloaded	demonstration of user functionality in client PC
Supply of Symantec 14.1 antivirus	Installation of Symantec 14.1 antivirus
Multipurpose Pinter (03 Nos.) and A4 Inkjet	
Printers for CMIMS System (22 Nos.)	
1 KVA mini UPS with 30 minutes battery	
backup for every CMIMS Station (27 Nos.)	
3 core power cable , UTP cable (rolls of 305	
meters each), RJ45 connectors , crimping tool	
and LAN cable tester as required qty.	
	All related software licenses for CMIMS system
	e.g., Application server software, Database, disaster
	recovery, OPC software, DTP, Presentation software
	as applicable/required for completeness of the system
	CMIMS system 2 stages implementation, first at
	BHEL Bangalore and latter on site (<i>Tuticorin</i> ,
	Tamilnadu) implementation. Assets data collection,
	commissioning, demonstration to customer. Further
	data exchange to/trom PLCs, DCS, ERP system etc,
	Training, handing over the system to customer etc.

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2. Bill of Material/Services:

Software (*main and associated*), site implementation and other services as shown below are in the scope of vendor. The following minimum requirements shall be met by Supplier:

SN.	Description		Supplier confirmation
А	SUPPLY		
1	CMIMS software Package latest version (<i>configuration in hot standby mode</i>) to be loaded in 2 redundant server machines. Also there are physically 25 Nos . CMIMS Client Workstations available in network. Total 27 user licenses required (2 for servers with full administrative rights and 25 user licenses for Client workstations).	1 set	[Yes/No]
2	Price of additional per user client license which may be ordered if required at later stage of implementation.		[Yes/No]
3	Associated software for proper functioning of the main application which includes DBMS, Presentation /Reporting software etc. (<i>as</i> <i>applicable for CMIMS system</i>) for achieving the technical requirement mentioned in 3.0. Note : Supplier to mention the list of associated software in Bill of material. Also see notes 1) & 2) below this table.	As required	[Yes/No]
4	OPC DA2.0/3.0 interface software for acquisition of process data from PLC, ValmetDNA DCS, ERP etc. and vis-a-vis.		[Yes/No]
5	Disaster management software.		[Yes/No]
В	SERVICES		
	CMIMS Package Design & Implementation includes all stages of implementation as detailed below:	1 Set	[Yes/No]
1	FAT(Factory Acceptance Test) /1 st stage installation , the CMIM software will be tested at BHEL Bangalore premise along with END user for acceptance. Refer clause no. 4.1 for details		[Yes/No]
2	On site Service: 2 nd stage installation , Data Collection and Data Entry for 10,000 assets.(<i>Inclusive of travel / stay / man-days / number</i> <i>of trips as applicable</i>). Refer clause no. 4.2 for details		[Yes/No]
3	Vendor to mention price for additional scope (Beyond 10000 assets mentioned above) of Data Collection/Entry/engineering for 1000 assets (<i>inclusive of travel / stay / man days / number of trips as</i> <i>applicable</i>). This is optional. BHEL may use this option, if need arises at a later stage of implementation.		[Yes/No]
4	Engineering, Testing and on site Implementation/ Demonstration		[Yes/No]
_5	Training		[Yes/No]
6	Go live/Handing over at site		[Yes/No]
7	Post – Implementation Support for 12 weeks		[Yes/No]
8	Comprehensive warranty support for 01 year from date of completion of Post - Implementation for all Software		[Yes/No]

Note:

1) For Sl. No A.3), A.4), A.5) of above, prices shall be inclusive of main package i.e., no separate price to be mentioned for these software

2) The Supply and Services (with breakup) price shall be mentioned separately. YES/NO]



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3. Technical specification:

3.1 CMIMS Design features.

3.1.1) CMIMS system shall be based on Client- Server and relational data base environment. The system shall operate on a commonly used hardware platform and network operating system. The system shall be based on software that is proven for **industrial plant application** and shall be implemented for networked LAN (100 mbps) as well as Web Enabled structure.

[YES/NO]

[YES/NO]

[YES/NO]

[YES/NO]

3.1.2) The system shall be integrated with the plant DCS through OPC for the Utilization of the plant DCS data of main plant system, which in turn will have connectivity with Utilities & offsite systems.

[YES/NO] 3.1.3) System software for this package shall be Web based & HTML compatible.

[YES/NO] 3.1.4) The system shall be password protected. It shall be possible to organize system users into groups and each group shall have a separate security profile. It shall be possible to provide additional personal security settings for individuals within a group. [YES/NO]

3.2 The system shall have the following features:

3.2.1 Database Management system

CMIMS package shall have software for storing of database/various tables related to assets, users' profiles/history etc.

3.2.2 Web / Report server:

All requisite components to host Web Server software shall be available.

3.2.3 Disaster Recovery Software:

Database Backup Management and Disaster Recovery Software will be also configured. Such software shall have the facility to undertake backup for all the open files in a separate system (*e.g., NAS/any other mass storage USB device.*) connected through network/USB. To facilitate quick and simple restoration of a downed server i.e. without re-installing the operating system or launching data backup restoration process.

3.2.4 Administrative Server Hardware specification:

Administrative server **hardware configuration** is as specified in section 3.4 where CMIMS software will be installed, configure database and design workflows. This server shall be used to run core CMIMS application, contain CMIMS database and Web Application Server software. The **hardware configuration** is to be vetted by CMIM vendor as mentioned in section 3.4.2. **[YES/NO]**



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3.2.5 FUNCTIONA FETURES: -

[YES/NO]

The system shall have the following functional features:

- i. Co-ordination between all disciplines of maintenance personnel, warehouse & Maintenance Departments.
- ii. Inventory Control.
- iii. Condition monitoring of rotating machine by collecting machine data from plant data highway and comparing set values for condition-based maintenance.
- iv. Create Preventive Maintenance records; generate work order, resource, calendars, plan and compliance assurance features.
- v. Equipment database.
- vi. Store information of each equipment and generate reports related to schedules of maintenance and replacement of parts, labor, maintenance cost incurred.
- vii. To update on line stock position of spares.
- viii. Separate alarm reporting on exhausted stock (*Minimum Ordering Level*) and create work order.
- ix. Standard feature for Failure and Defect analysis of various equipment, codification of different types of troubles and corresponding corrective measures by Maintenance Department. Codification of a type of trouble which may not have occurred or conceived earlier.
- x. Prioritization of preventive maintenance related to specific equipment and its sub-system.
- xi. Build hierarchies of work orders for inspection.
- xii. Proposed CMIMS package will cover the entire Maintenance Management requirement.

CMIMS system shall be common for the equipment/systems for the whole plant. It is the CMIMS vendor's responsibility to commission the system including collection of the relevant data/ details and populating the data base for the Assets/Equipment/Systems for the whole plant. [YES/NO]



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3.3 CMIMS Software Package Module specification:

(Makes: MAXIMO of IBM / Web Factor-E of TCS/ Avantis of Schneider Electric/ RAMCO/ Honeywell/ INFOR).

[YES/NO]

The software shall have the following modules as minimum to meet the requirements

3.3.1 WORK ORDER FUNCTION

Work order function shall have following features:

- Viewing comprehensive and detailed planning information such as following:
- a. Work Plans
- b. Schedules (Target and scheduled date tracking)
- c. Costs
- d. Labour, materials, Skill set / crafts, Special tools requirement.
- e. Equipment
- f. Standard Failure analysis
- g. Recording of maintenance work and closure of work orders.
- h. Scheduling of work orders based on real time criticality and logistics
- i. Sequencing of work orders for multiple equipment based on location and / or equipment
- j. Comparison of real time budgets or estimates with actual and historical data
- k. Tracking of equipment down time
- 1. Tracking of equipment failure history with cause and remedy. Facility for generation of microlevel failure/ cause stratification diagram.
- m. Permit to Work features.

3.3.2 PREVENTIVE MAINTENANCE FUNCTION

[YES/NO]

Preventive maintenance schedule shall be capable of performing the following:

- a. Allows each asset / equipment to have a defined maintenance profile
- b. Helps to schedule planned preventive maintenance routines
- c. Control preventive maintenance procedures
- d. Control the issue and documentation of planned and un-planned maintenance work.
- e. Generation of preventive maintenance work-orders on demand, batched or automatically.
- f. Generation of preventive maintenance work-orders for planned shut downs.
- g. Sequence multiple job plans and consolidate multiple procedures on one preventive maintenance schedule.
- h. Facilitates clustering of PM work orders for various departments / divisions to take reduced planned equipment downtime.
- i. Capable of generating PM work orders on the basis of fixed frequency intervals or run hours.
- j. Reservation of inventory for scheduled PM works

[YES/NO]



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3.3.3 PURCHASING & INVENTORY FUNCTION: -

[YES/NO]

Purchasing function shall have following features:

- a. Creation of purchase requisitions or purchase orders either from scratch or from the inventory or work order modules
- b. Create RFQs for multiple vendor bids
- c. Automatic release of agreement Purchase orders
- d. Creation of special orders for parts not stocked in inventory.
- e. Elimination of costly "Maverick Buying" by establishment of approved vendors.
- f. Direct issue of purchase orders and issue parts and services directly to work orders for the expense off items.
- g. Use of invoice matching
- h. Auto re-order PR/PO generation for the spares, when stock falls below re-order level.
- i. PR to PO consolidation to group PRs by vendor into single purchase order.
- j. Line item /Purchase order status generation-Initiated (Unapproved), Approved,
- k. Partial receipt, Completion of receipt, Invoice matched, Cancelled etc.

3.3.4 CONDITIONAL PREVENTIVE MAINTENANCE (CM):-

[YES/NO]

Intelligent real time condition management solution that collects and analysis real time diagnostics from plant production assets. The solution helps move organizations from a reactive to a proactive maintenance environment by predicting and correcting issues before they affect the plant. Function to integrate with CMIMS to accomplish this; CM collects the data and processes the data through the rules stored in it, if warranted it will trigger PM Jobs or create work orders. It is also able to create and send e-mails or just collect statistics. Real time condition monitoring feature should be available for minimum 1000 IO's.

3.3.5 SCHEDULING FUNCTION

[YES/NO]

[YES/NO]

Scheduling function shall enable to forecast future preventive maintenance dates for resource planning.

- a. Calendar Wizard for rapid scheduling
- b. Personal schedule to view an employee's day on-line
- c. Vacation/Time-off request/approval process
- d. Overtime request approval process
- e. Entity calendar showing availability and scheduled work
- f. Employee Qualification Tracking
- g. Preventive Maintenance Forecasting.

3.3.6 REPORTING FUNCTION

Reporting facilities required are as follows:

- a. Standard Reports-Generation of standard reports on work orders, safety plans, inventory values and other critical points about maintenance operations.
- b. Report types- capabilities shall include columnar reports, forms, Bar Charts, Pie Charts, Cross tabs etc.
- c. Report generation feature.
- d. Data export capability to Text, Excel/Lotus, Word documents, E-mail, HTML and pdf, formats.



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3.4 CMIMS Servers / Client Workstations software Installation and configuration:

Scope includes configuration of all software supplied by CMIMS vendor as well as Symantec antivirus provided by BHEL. Windows OS will be preloaded with machine.

[YES/NO]

3.4.1 Network IP Address:

The network IP address to be assigned on 2 Nos. Dual Port Intel Gigabyte NIC's, plug in on PCI Express slots. IP address and other details will be finalized and given at the time of implementation.

[YES/NO]

3.4.2 System configuration:

The server will be provided with the **Windows Server 2012/2016** Operating system and Client station will be **Windows 10** Operating system. Vendor to ensure that CMIMS software is compatible to the server specification mentioned below: **[YES/NO]**

Server specification:

- ✤ Intel Xeon or equivalent Processor
- ✤ 3x600GB SAS HDD –RAID 5
- ✤ DVD +/- RW DRIVE
- min 12 GB, DDR-4 ECC RAM
- Dual redundant/ Hot Swappable Power supply
- ✤ 4 nos. x 10/10/1000MBps Ethernet Ports
- ✤ 3 Nos PCIe slots
- min 6 Nos USB ports
- ✤ Windows server 2012/2016

Client workstation specification:

- Intel Xeon or equivalent Processor
- Min 4 GB RAM DDR3
- ✤ Graphics card with 512 MB video memory
- ✤ 1 X 500 GB SATA HDD, 7200 rpm
- 1 no. DVD RW SATA Drive
- ✤ 2 nos. x 10/10/1000MBps PCIe Ethernet cards
- ✤ OS: Windows 10
- Min 4 Nos USB ports

3.4.3 Application Server: IBM WebSphere/Oracle WebLogic Server OR equivalent software latest compatible version to be provided/ setup by CMIMS vendor [YES/NO]

3.4.4 Database: Database will be part of CMIMS package. IBM DB2/ Oracle/ Microsoft SQL Server OR equivalent software, latest compatible version to be provided/ setup by CMIMS vendor for achieving the complete functionality of CMIMS package. **[YES/NO]**

3.4.5 Antivirus: Symantec 14.1 or latest antivirus installation DVD and license will be provided by BHEL. CMIMS Vendor has to install the antivirus in line with installation instructions which will be provided by BHEL. (*Server client architecture will be followed for antivirus installations where in one CMIMS server will be configured as Symantec manager and remaining 25 client workstations as client*).

[YES/NO]



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3.4.6 Disaster Recovery Software: Database Backup Management and Disaster Recovery Software (*third party software is also acceptable*) to be provided/ configured by CMIMS vendor. Such software shall have the facility to undertake backup for all the open files in the system as well as quick and simple restoration of a downed server i.e. without re-installing the operating system or launching data backup restoration process. It shall support one (1) button Disaster Recovery from Bootable CD. The backup will be stored in a Network attached storage (NAS) /any other mass storage USB device connected through network/USB supplied by BHEL

[YES/NO]

3.4.7 OPC software for bidirectional interfacing CMIMS package with plant DCS: Relevant OPC Server/OPC Client software in order to exchange data between CMIMS package and Plant DCS (ValmetDNA OPC), PLCs, ERP etc. to be provided/ configured by CMIMS vendor.

[YES/NO]

3.4.8 CMIMS software: Required software to be loaded by CMIMS vendor in servers in hot redundant mode. Client will be able to access the server with a single IP address. Proper load balancing to be done to distribute the load between two servers. Each server shall be able to take the full load in case of failure of the other server.

[YES/NO]



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4.0 PROJECT SCHEDULE: As the proposed project is a utility Thermal Power Station, erection and commissioning activity (*of this thermal power station*) period being 24 to 36 months, supplier should take account of such time frame and plan project schedules accordingly. There shall be **2** stages of installation as described below: **[YES/NO]**

4.1 FAT in BHEL Bangalore:

 $FAT/1^{st}$ stage installation to be made at BHEL Bangalore premise as per approved FAT procedure. The software has to be installed in Project machines. Vendor should depute Engineer at BHEL-EDN Bangalore for configuration/loading the assets' data in machine.

The functionality is to be demonstrated to BHEL/END user for acceptance. Demonstration of full functionality using trial version is also acceptable. Activation of all licenses to be made at site at the time of Go-Live stage. [YES/NO]

4.2 ON SITE SERVICE:

2nd stage installation, vendor should depute engineers at end user site(*Tuticorin TPS, Tamilnadu, India*) i.e., for finalization of methodology ,balance Data collection, Data entry, Data Migration, Go-live, Training, Support activities. These will take place only after all assets/ equipments are ready i.e., erected and commissioned.

End User clearance is mandatory for starting of implementation stages of the project. [YES/NO]

4.3 INPUT DATA of assets/equipment be accumulated for a set of assets/equipment as available/ready at site. It may take few rounds to complete the total input collection and overall time will depend on site condition. Also the input format be as available for the particular assets/equipment. It is the vendor's responsibility to extract the data from the available format and make entry of the same in the system [YES/NO]

4.4 After first/initial rounds' installation, the feedbacks as given by end users to be taken care in the final software. **[YES/NO]**

5.0 CUSTOMER TRAINING:

Training of the BHEL / End Users working on CMIMS package is mandatory. Onsite training to be provided by CMIMS vendor for min 10 persons for at least **1** week for system functioning and user level activities. Further 2/3 participants to be given specialized training for about 5 days for Administrative/Maintenance activities. Any additional training requirements will be specified by BHEL / End-User during detailed engineering.

[YES/NO]

6.0 Post implementation SUPPORT:

Post implementation support after go-live is envisaged for a minimum period of 12 weeks.

[YES/NO]

7.0 Project CLOSURE: All tests shall be conducted at END user location. This includes testing of CMIMS Package Modules with live data as implemented. All de-bugging, checking of installed components and fine-tuning activities shall be carried out. 'Project Closure' / 'Work completion' certificate has to be obtained from BHEL / End-User. **[YES/NO]**



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8.0 Warranty:

8.1 Full warranty support, covering software maintenance and technical support, covering defects in CMIMS software and functionality shall be provided for a period of **1 year** from the date of completion of 'Post – implementation support'. **[YES/NO]**

8.2 Full warranty support, covering software maintenance and technical support, covering defects in Third Party software and functionality shall be provided for a period of 1 year from the date of Completion of 'Post – implementation support'. **[YES/NO]**

8.3 All the above warranty clauses shall be on Comprehensive basis i.e., all above services, labor and materials, etc., shall be on FOC basis during warranty period and rests with CMIMS vendor.

[YES/NO]

[YES/NO]

[YES/NO]

9.0 Documents to be furnished:

9.1 Along with the Offer

- a) Technical write-up
- b) Complete Bill of Material / Deliverables in line with page 4 of spec
- c) Implementation methodology / plan (Tentative)
- d) Interfacing details with PLC, Plant DCS System, ERP system etc..
- e) Compliance of all the clauses of the specification in the form of [YES/NO]
- f) Reference List for similar previously executed projects in India

9.2 After placement of Purchase Order:)

The followings are to be provided and approved by BHEL / END Users

- a) Technical write-up
- b) FAT(Factory Acceptance Test procedure/ methodology)
- c) Complete Bill of Material / Deliverables in line with page 4 of spec.

Note: On site Implementation methodology / plan will be finalized latter at site prior to implementations in consultation with END user

9.3 At the time of Dispatch: Final approved drawings / documents. (4 sets of the following)

[YES/NO]

- a) Technical write-up, Technical literature and Data Sheets.
- b) Complete Bill of Material / Deliverables in line with page 4 of spec.
- c) Interfacing details with PLC, Plant DCS System, ERP system etc..
- d) Instruction / Configuration Manual.
- e) Test reports / Certificates.
- f) Software copy

One (01) set soft copy of offer as well as Final document shall also be provided to BHEL. The soft copy shall be in CD-ROM media and shall be compatible with Windows 7/10 with drawing / documents in AutoCAD / MS-Word / MS-Excel / PDF / HTML formats.



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10.0 Notes:

a) The charges for services will be paid to supplier on pro-rata basis upon submission of certificate by BHEL-Site office / BHEL-Engg.
 [YES/NO]

b) Advance intimation of one week will be given for deputing personnel to site. **[YES/NO]**

c) Vendor must furnish, all documents, in line with specification along with offer. Deviations if any must be clearly brought out in offer, since only such deviations with suitable alternative shall be taken cognizance. Incomplete offers (*without documents / not relevant documents as mentioned above*) will be rejected without any communication. [YES/NO]

d) BHEL reserves the right to split the order with OEM as imported order (*for duty benefit*) & Services as indigenous order are under different suppliers (*Authorized dealers of OEM*) for above projects sent as separate enquiry. **[YES/NO]**

e) Even if BHEL places split orders, the total overall responsibility of system integration at site for satisfactory operation lies with indigenous order only. However, individually each vendor as applicable has to offer separate lump sum unit rates for commissioning of system. **[YES/NO]**

f) Supplier shall note that, BHEL role shall be limited to finalizing contract and placement of order on the Supplier. Full implementation to the satisfaction of the End User(MEIL) is in the 'Scope of Supplier'. i.e., BHEL role will be limited to certifying the work completion (*for payment purposes*) and to coordinate with BHEL Site office / End User / other data providers to help Vendor collect the data.

[YES/NO]

g) Supply, Design / Engineering, loading, Testing, Implementation and Training etc., of CMIMS software package with asset data on a turnkey basis is in CMIMS vendor scope. These activities also include implementation methodology finalization, data collection, data entry, data migration, and so on. [YES/NO]

h) For services as mentioned above Number of site visits, duration of each visits shall be as required. Vendor shall depute the experienced/trained personnel for the activities to be performed at site. The onsite activities are fully in the scope of CMIMS vendor, which be carried out staggered manners over a period of 1 to 2 years from starting of the site activities [YES/NO]

i) Suppliers shall include Travel, accommodation, man-days and multiple site trips etc., as a part of Implementation / Data collection process. Separate charges not admissible. [YES/NO]

j) For assets/equipment's etc. Present Data sources envisaged will be OEM manuals, O&M manuals, End-User inputs, P & IDs, Drawings, Catalogues, etc., available at End-User premises (*in soft media or hard copies*). **[YES/NO]**

k) Reference List to be submitted for previously executed projects in India or abroad. [YES/NO]

I) All other Terms & Conditions as specified by Purchase department shall be final. [YES/NO]

m) Supplier has to thick [YES/NO] as a confirmation/compliance of the respective clauses