

ANNEXURE-D III
Scope Matrix

SI No.	Description	Responsibility	
		Owner	O&M Operator
1	GENERAL		
2	Manpower Deployment	x	√
3	Accommodation and Boarding for Workers	x	√
4	Local conveyance of Staff and worker	x	√
5	Porta cabins for All field staff including subcontractors	x	√
6	Porta cabins/Containers for stores and consumables for all area CPP/CFBC & MHS	x	√
7	INFRASTRUCTURE		
8	Site Office for officers & above . Operators & Technicians arrangements by O&M Operator. Drinking water arrangement for all by Owner	√	√
9	Furniture for office / Infrastructure by Owner .Desktop, laptop , Projectors/printers, scanners,VC arrangements , stores racks and local test benches by O&M operator	√	√
10	Canteen Facility on Chargable Basis	√	X
11	Toilet at site office area and work area	√	X
12	Facilities like Intercom , LAN.	√	X
13	Facilities like IS Mobile, Walike Talkie for Key plant Operating and Maint. Personnel (restricted to 15 Nos FLP Phone / 50 Nos Walkie) Any additional requirement shall be in bidders scope .	√	X
14	Small electrical Lab/workshop in field area to carry out overhauling of LT Motors & MOVs.	√	X

SI No.	Description	Responsibility	
		Owner	O&M Operator
15	TOOLS & PLANTS		
16	All General Tools (also refer Annexure-D VII)	X	√
17	Special tools supplied by OEM	√	X
18	All types of Scaffolding for O&M services including touch up Painting work for equipments Tags/letter writing	X	√
19	All types of Chemicals, Reagents and Lubricants	√	X
20	Consumables as per attached Annexure-D V	X	√
21	SITE ACTIVITIES		
22	24X7 Operation of the Power plant	X	√
23	Daily report, monthly and Annual reports	X	√
24	Carrying out Preventive, Predictive and Breakdown Maintenance. Schedules as per the scope	X	√
25	Provide available required drawings, specifications and O&M manuals	√	X
26	Annual Budget submission in November month of each financial year (Will be prepared by Operator and approved by Owner)		√
27	Preparation of SOP and SMP for all systems	X	√
28	Annual Operating Plan and forward Maintenance Plan	X	√
29	Security	√	X
30	Loading & Unloading, Handling of Material at CPP site	X	√
31	Material Handling Equipments above 14M ton of Cranes / Hydra .	√	X
32	In-plant Transportation of spares, Materials , scraps and waste etc from Store to Plant and vise versa	√	X
33	All types of major Civil works /concrete slabs/new buildings/structures by Owner except internal drains , cable channels cleaning,Minor civil works including dechoking, repairing and replacement of items/Repairing, Sintex Cleaning, Wash Basin installation including all pipe/door fittings/civil repairs/Plumbing works /Piping stencils/ minor touch up paint/ replacement with all material etc are in Bidders scope upto 10 lacs/Annum	√	√
34	Road and Building maintenance, Major equipment and Bulding Painting	√	X
35	Housekeeping of all equipments, systems, panels etc. in the plant area & office	X	√
36	Landscaping of all areas, like roads, common yards etc	√	X
37	Pest Control Services	X	√
38	All Required Work Permits (PTW) handling by Bidder . Printer by Owner	√	√
39	Insulation services and material (doesn't cover refractory) will be in HMEL scope, but bidder will keep one manpower always available at site for minor insulation removal and fixing with existing material. All the scaffold related to insulation will be in Bidder scope.	X	X
40	Implementation of recommendation for the Energy Conservation and reliability improvement of existing Plant by TS, AI & reliability team.All material/spares by Owner.	X	√
41	Execution of the MOC(Minor nature by Operator with existing resources and Major by Owner)	√	√
42	RCA recommendation job execution where new equipments are involved and external resources required by Owner . However commissioning in O&M operator scope with existing resources. Experts in Owner scope.	√	√
43	Repair of cables through Cable jointing (all LT, 6.6KV & OFC cables) within O&M safety district is in O&M contractor's scope.	X	√
44	Repair of cables through Cable jointing for 33KV cables up to refinery power transformer is in O&M contractor's scope.	X	√
45	Replacement of faulty cables (all sizes) within O&M safety district is in O&M contractor's scope. Replacement of 33KV cable on refinery side is in owner's scope.	√	√

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46	Associated activities (e.g. slab removal of cable trench, scaffolding etc.) for cable laying of MOC/RCA/RCM recommendation implementation shall be in O&M scope.	X	√
47	All control cable, earthing cable, communication cable and LT power cable (up to 3.5/4Cx70sqmm size) laying and its glanding & termination is in the scope of O&M contractor. (For MOC & reliability improvement activities)	X	√
48	Repair of Cable Trays / Supports / Structure	X	√
49	Permits & job responsibility for Major MOCs & New system integration with existing system DCS/PLC/ control system / MARK-VI all the jobs under safety district will be in O&M scope. While executing agency for MOCs will be provided by HMEL	√	√
50	All equipment BOM update and PM plan review in O&M scope	X	√
51	All material inspection at warehouse within 3 days of intimation in O&M scope	X	√
52	Implementation of RCA recommendations in existing equipments	X	√
53	Implementation of recommendations of various online & offline diagnostic testing	X	√
54	New earthen pit installation & replacement of earthen pit is in the scope of O&M contractor	X	√
55	33 KV cable removal from GIS and re-termination in GIS during diagnostic testing of cables	X	√
56	Dedicated vehicle for Liaisoning with PSPCL (Patiala & Ludhiana in Owner's scope; rest locations are in O&M scope)	√	√
57	Replacement of conventional lights with LED services only	X	√
58	Overhauling and Repairing of HT Motors in owner's scope. Site activities (maintenance, removal from site & installation) related to HT motors having sleeve bearing shall be in O&M scope.	√	√
59	Small studies, external lab testing, out door official visits as per client requirements up to 10 Lacs annually as recommended/approved by Owner	X	√
60	Lime yard stock reconciliation through TPI quarterly basis through 3D method	X	√
61	Manual material shifting (Lime stone/Petcoke) for maintaining Pet coke silo (6000 MT) and Lime stone yard stock (10000 MT) emergency stock, necessary machinery (Hydraulic dumpers/ poclain) arrangements. Post commissioning of V plough this Lime transfer order may not be required . The respective PO amount shall be deducted from Bidders PO post 1st Year.	X	√
62	SITE SERVICES		
63	Owners Mech. Workshop, Instrument Workshop services can be taken for limited complex jobs . Mech workshop , Electrical Lab and C&I Laboratory along with Calibrated Test Instruments & Equipment should be available at site for routine requirement.	√	√
64	Weighbridge for ash loading -O&M and calibration	X	√
65	Forklift , Bobcat ,hydraulic operated minitruck (Not more than 5 yrs old) should be available at site for routine operations daily basis . (Tractor trolleys are not allowed) s . Poclain & Hydraulic Dumpers/ Loaders may be used for Lime and Petcoke shifting as per intermittent requirement . Max 20 times /Annum each for 8 Hrs . O&M Operator may have an ARC .	X	√
66	Housekeeping mechanized equipments (Industrial vacuum cleaners , road sweeper, floor cleaners with consumables and chemicals)	X	√
67	Specialized AMC services as per ANNEXURE-D IV	√	√
68	External calibration/ testing of O&M operator measuring Instruments, relays	X	√
69	Firefighting equipment preventive maint.	√	X
70	Statutory compliance for Dept. of explosives & Environment	√	X
71	Local Manpower Support in Major / Minor Overhauling	X	√

SI No.	Description	Responsibility	
		Owner	O&M Operator
72	OEM Support in Major Overhauling (GTG, STG, BPTG).	√	X
73	Specialized Services like ECT, Thickness Survey, Hydrojetting, Seretion, Buffing and painting of Equipments, PMI checking, Radiography, Hot tapping, Chemical Cleaning	√	X
74	Calibration of Analysers of SWAS and Air / Flue Gas / Condensate monitoring systems (O&M Contractor may have separate contract with the existing contract agency deputed for Analyser Maintenance in the Refinery).	X	√
75	scope as per clauses in O&M scope document specifically 2.2.2 & 2.2.3	X	√
76	SAFETY		
77	Qualified Safety engineers/safety supervisors	X	√
78	PPE for staff and workers	X	√
79	Regular Tools Box Talks	X	√
80	Complete Process/Compliance		
81	Renewal of Licenses- Boilers & Electrical Inspector , Pressure vessel inspectorate liaisoning (Govt fees by Owner)	X	√
82	TPI/calibration for EOT, Elevators , safety valves (Support from workshop for offline)	X	√
83	Labour license for its employees	X	√
84	Provident Fund for employees	X	√
85	ESI for employees	X	√
86	Insurance		
87	Insurance for Owner's Equipment	√	
88	Insurance for Contractors Equipment/ T&P	X	√
89	Workmen compensation	X	√
90	Overall	X	
91	All Equipments, Plant & Machinery within Plot plan of CPP and as mentioned in RFQ documents including Substation except excluded in the Schedules	X	√
92	The O&M Contractor's battery limits starts from all incoming cables to substations except outgoing cables from panels to respective units/equipments (Process) and as mentioned in RFQ shall be in O&M Contractor's Scope. IR checking at substation is in O&M contractor scope and it is part of trouble shooting, however replacement is in HMEEL scope.	X	√
93	Relay programming, troubleshooting, relay software, laptops & communication cables shall be in O&M contractor scope. Any vendor to be called for modification shall be in O&M contractor scope.	X	√
94	ECS system operation and maintenace upto downstream RTU panels is in O&M contractor scope. OEM expert in HMEEL scope	X	√
95	Modification with existing resources & consumables	X	√
96	For minor Management of change for reliability & efficiency improvement program and changes in Logics.	X	√
97	O&M Operator to deploy IBR agnecy with HT Pumps. All necessary Liasoing for IBR approvals in O & M scope. Annual fees shall be in owners scope.	X	√
98		X	
99	To prepare and maintain ISO Documentation as per the IMS Policy of HMEEL.	X	√
100	RCA of each failure and implementation (Possible with available resources)	X	√
101	Preparation of SMP/SJP and hand over to HMEEL for review and upload in the electronic documentation system.	X	√
102	Identification of duplicate Material Code - in SAP and to inform HMEEL for deletion.	X	√
103	Request generation for SAP codification of -Spares, BOM updation with authentic data.	X	√
104	Control System diagnostic alarms, system alarms, Control system hardware status checking on daily basis.	X	√

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105	To carry out LLF (Look, Listen, Feel) activity of all types of Field Equipment / Instruments on daily basis, maintain the record and to take corrective action.	X	√
106	O & M Contractor is to ensure the availability of all types of software, related to control system. Back up from all control system are to be taken periodically and is to be available all the time. One copy of Password of PC/Server/ Control System is to be kept with Engineer-in –charge.	X	√
107	All necessary maintenance records (any software and hardware modification) is to be updated in original document and with the scope of O&M Contractor.	X	√
108	Draftsman for drawing updation in AutoCAD	X	√
109	Critical Spare Identification and Monthly Monitoring of the inventory for the same is in O & M the Contractor Scope.	X	√
110	Requirement for spare must be provided to HMEL at least 6 Months prior to “Stock Zero condition”	X	√
111	Compliance to various internal & external audits	X	√
112	Execution of turnaround related job in 4 year interval alongwith refinery TA for attending all shutdown defects in limited timeline as per scheduler (approx 4-5 days) including all resources (Scaffolding/ hot jobs/OLS normalization /spring support/ PSV caliberation/passing valves repair/piping replacment as per AI) except spares. Tanks M & I as per schedule.	X	√
113	OEM Support other than BHEL/BGGTS. ARC to be made for quick deputation	X	√
114	Correction if any related to RAPH seal losses in UB (major job expected in UB-1) & duct bellow replacemnt from metallic to non-metalaic in all Ubs	X	√
115	RLA of all boilers wrt running hrs & execute recommendations . Spares by owner	X	√
116	Rail Track maintenance limited to inside refinery dedicated for MHS .	X	√
117	Dehumidifier system with Blower arrangement for ESP, Ash eavacuation through external vaccum system during CFBC shutdown	X	√
118	LAHAR scaffolding for CFBC annual shutdown and Drone inspection arrangement for CFBC boiler internals	X	√
119	Both HRSG MUH - Dry ice/Glass flakes cleaning along with HGPI/MI	X	√
120	Mandator capacity testing annually and Energy audit with report	X	√
121	Meters availability at site - Ultrasonic flowmeter , Flue gas portable analyser , Anemometer , Cation conductivity portable analyzer , Portable Particle size distribution meter (Lazer diffraction/ optical)	X	√
122	IT latest equipments must be used and upgraded time to timei i.e Intel core i5 /solid state/microsoft 365 / Preimevera /windows 11 Pro etc. for Bidders employee	X	√
123	Bidder to adhere to mandatory minimum Information Technology (IT) hardware, software, and network security standards t and systems must adhere to while operating on behalf of or accessing HMEL Resources like SAP Hana, TDMS, and Other Operational Applications on the HMEL Network as a business requirement	X	√
124	Regular training of bidders employees to be done and annual calender to be devloped. In case of external training 10 Owners Engineers also have to be trained for 2 weeks in batches on various aspects of CFBC , GT, STG , Material Handling system , Pumps , Control system , DCS and BMS System etc. for next 5 (five) Yrs. (30 Man weeks /Annum) at OEM works or Plants with similar systems	X	√

SI No.	Description	Responsibility	
		Owner	O&M Operator
125	ARC with OEM of CFBC Boiler/Megaldy system/Macawber Bk for quarterly review & quarterly Field visits for Monitoring, Training and guiding Operation. 150 Man Hrs may be tied up with each OEM/Licensor accordingly. Other AMC/ARC should be as per scope Matrix .	X	√
126	Any equipment fails during operation, maintenance of same shall be under O&M scope	X	√
127	Rope access arrangement for sheet repair work at CPP CFBC MHS locations	X	√