OIL INDIA LIMITED

(A GOVT. OF INDIA ENTERPRISE)
CONTRACTS DEPARTMENT, DULIAJAN
DISTRICT: DIBRUGARH (ASSAM), PIN-786602
TEL: (91) 374-2800548, FAX: (91) 374-2803549
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CORRIGENDUM NO. 3 DATED 23.09.2026 TO TENDER NO. CDH2516P27 for 'Design, implementation and support for Command-and-Control Centre & OT Data Lake project for OIL India Ltd'.

This corrigendum to Tender No. CDH2516P27 is issued to notify about the following:

1) The **Bid Closing & Opening date** stands amended as under:

   (i) Bid Closing date & time: **16th October 2026 [11.00 Hrs (IST)]**

   (ii) Bid Opening date & time: **16th October 2026 [14.00 Hrs (IST)]**

2) Minutes of the pre bid meeting along with the initial responses to pre-bid queries are stipulated vide **ANNEXURE-I** enclosed herewith.

All other Terms and Conditions of the Tender/Bid Document will remain unchanged.

Sd/-
(Parag Barman)
Chief Manager – Contracts (G)
For Chief General Manager – Contracts

OIL INDIA LIMITED

Pre-Bid Meeting Minutes

Tender No. CDH2516P27 dated 08.08.2026
Name of Work: Design, implementation and support for Command-and-Control Centre & OT Data Lake project for OIL India Ltd.
Date & Time: 24.08.2026 from 10:00 AM onwards
Venue: Auditorium (Ground Floor), OIL's Corporate Office, Plot No. 19, Near Film City, Sector 16A, Noida – 201301

The pre-bid meeting was organized to address the queries raised by the bidders for the said tender within the pre-bid query submission deadline. OIL discussed and clarified the queries pointwise. The queries received & clarifications given, if any during the meeting are placed as **Annexure – I**. It was mentioned in the meeting that the final reply against each pre-bid query shall be published in tender portal and same will be treated as part of the Tender conditions and shall be binding to both OIL and Bidders.

The meeting ended with a vote of thanks to the chair.

OIL's Representative				Bidder's Representative				
Sr. No.	Name	Designation	Signature & Date	Sr. No.	Name	Firm's Name	Designation	Signature & Date
1	Sanjay Goswami	CDO	24/08/26	1	Kunal Singh	OASYS	GM	24.08.26
2	C B PRASAD	GM&PM (DRIVE 2.0)	24/8	2	Ila Dashora	Ecofirst	AGM	24/8/26
3	N. Bhattacharya	GM-IT, PHQ	24/08/26	3	AMIT	TASL	MANAGER	
4	P.P Achyadeo	GM - Inf, Engg	24/8	4	Rajesh	Chowdhary	Sales	

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OIL's Representative				Bidder's Representative				
Sr. No.	Name	Designation	Signature & Date	Sr. No.	Name	Firm's Name	Designation	Signature & Date
5	Chandan Kr. Barman	GM-IT	24/08/25	5	AMIT DWIVEDI	Cloudera	Sol'n Engg.	24/Aug
6	PARAN BARMAN	CM-Contracts		6	Rajvardhan S.	Scale IQ	Corp. Dev.	24/Aug
7	Apurba Das	CGM(CAS-O)		7	MANAS	DATABRICKS	Sales	24 Aug
8	S. K. Sinha	DGM-IT		8	Sumant Sharma	MOONVENTURE	Director	
9	N. Hareesh	Manager-FEA		9	Sweta Rai	TCS	Consultant	SR.
10	Siddharth Acharya	Solutions Architect		10	Neeraj Chawla	TCE	Sr BDM	
11	~~Rajvardhan Singh~~	~~Corp Develop~~		11	Sumit Arora	Hasnatek	AVP	24/8/25
12	Ravindra Upadhyay	GM	Ravindra	12	NITIN GUPTA	BROADCOM	DIRECTOR	
13	~~Sujoy Bhattacharjee~~	~~GGM~~		13	Shubham Singh	Fluentgrid	manager Sales. Clients	
14				14	Rohit Tilea	Annex Infotechnologies	Sales Lead	

S. S. Gogoi DGM

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OIL's Representative				Bidder's Representative				
Sr. No.	Name	Designation	Signature & Date	Sr. No.	Name	Firm's Name	Designation	Signature & Date
15	[redacted]	Principal Consultant, Pre-Sales		15	AMIT PATIL	AVEVA	Presales Consultant	24.08.26
16	SANTANU SARMAH	SE (GEI) PL OIL, PHQ	24/08/2026	16	Gaurav	AVEVA	"	24/08/26
17	M M Payn	CE-VI		17	Khelan	VCS	Sales	24.08.26
18				18	Urvish	VCS	PreSales	24/8/26
19				19	RAKESH SHARMA	ESRI INDIA (ArcGIS)	Sales	
21				21	Mohtaqaq	ESRI- ArcGIS	Presales	Mohtaq
22				22	KARAN MANCHANDA	ECHELON EDGE	PRINCIPAL PRODUCT MANAGER	
23				23	HIMANSHU CHAUHAN	ECHELON EDGE	SALES	
24				24	SUNIL SINGH	PAN INTELECOM Ltd	Manager - Projects	
25				25	RANBIR PANESAR	PAN INTELLECOM Ltd	Director	Panesar

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OIL's Representative				Bidder's Representative				
Sr. No.	Name	Designation	Signature & Date	Sr. No.	Name	Firm's Name	Designation	Signature & Date
26				26	SUMAN GUPTA	BLACK BOX	RSM-N	24/08
27				27	ABHISHEK SRIVASTAVA	MOBITRA Technologies Pvt. Ltd.	Director	
28				28	Yogesh Khule	Sonepar India	Sr. Manager	
29				29	Vinod Dahiya	Sonepar India	Head DTSS	
30				30	Aditya Singh	Matrix	GM-Sales	
31				31	Sajid Kazi	Mindstec DSI	Regional Sales	
32				32	Ravikant	Scale IQ	Process Manager	
33				33	Chitwan Garg	Scale IQ	Chief Business Officer	
34				34	Aastha Jain	Oges	Senior Consult	
35				35	Saurabh	Oges	CEO	

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OIL's Representative				Bidder's Representative				
Sr. No.	Name	Designation	Signature & Date	Sr. No.	Name	Firm's Name	Designation	Signature & Date
36				36	Manish G.	LG Electronics India Pvt. Ltd.	GM - BDM Infra & PSU	
37				37	Himanshu B.	"	Manager LEM Biz	
38				38	PARDEEP DAHIYA	HONEYWELL	RSM-NORTH	
39				39	VIVEK SHARMA	HONEYWELL	VERTICAL-LEAD PEX	
40				40	Pranab Sui	Accenture	Sr. Ass. Dir	
41				41	Manjeet Singh	Vathaud Consult	VP	
42				42	ANUJ RAINA	Accenture	Sr. Manager	
43				43	Wasim Ahmad	IDDS	Project manager	
44				44	Harshit Ahuja	Deloitte	Senior Consultant	Ahuja
45				45	Anurag	Nevara	Asst. Manager	

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OIL's Representative				Bidder's Representative				
Sr. No.	Name	Designation	Signature & Date	Sr. No.	Name	Firm's Name	Designation	Signature & Date
46	Tinmoni Doly	CE - IT	24/08/26	46	Gohanshyam Chamyal	Rockwell	Corporate Account Manager O&G	
47	Priyangshu Bagi	SE - IT	24/08/26	47	MANAS BASU	Rockwell	ONG Sales	
48	Kandarpa Bordoloi	Dy. CE - IT	24/08/26	48	Prashant Singh	Alethe Labs.	Sales Head	
49				49	ANKIT AGARWAL	Alethe Labs	Sales Director	
50				50	Sujeet Bhattacharjee	Glopore Electronics LLP	Director	
51				51	AHSANT IMAM	CRESTRON	Sales DIRECTOR	
52				52	Deepak Kumar	Delta	Sales Director	
53				53	Apeet Singh	DELTA	AGM	
54				54	RAJENDRA SHINGTE	CT-SQUARE	BUSINESS HEAD - INDIA	
55				55	Deep Saxena	L&T DES	DGM-Ind.	Deep 24.8.26

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OIL's Representative				Bidder's Representative				
Sr. No.	Name	Designation	Signature & Date	Sr. No.	Name	Firm's Name	Designation	Signature & Date
56	Yogesh Sharma.	V.P.- Business Development		56	Yogesh Sharma.	Abjayon	V.P.- Business Development	24/8/26
57	Gilesh S	AMF Head TPS & EOT		57	Shailendra. Patel	Broadcom	Solution Architect	
58				58	Shaour Seth	Basco	DGM	
59				59	Sanjay Kr.	IDOS	SM	
60				60	Deepa kumar	Pro Digital	CEO	
61				61	Dhanshan.S	Pro Digital	CTO	
62				62	Rahul Sharma	TCS	Pre sales	
63				63	Deepak Kapoor	ARJ	Associate Sales Director	
64				64	ABHISHEK SINGH	STL Networks Ltd.	Sales Manager	
65				65	ASHWANI JAIN	DRAIPL	G.M. Operation	

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OIL's Representative				Bidder's Representative				
Sr. No.	Name	Designation	Signature & Date	Sr. No.	Name	Firm's Name	Designation	Signature & Date
66				66	Sandeep Rajain	RPE	SA	24/8/24
67				67	Arun Sankar	Nikom	Sr. V. P.	24/8/24
68				68	AKSHAY	NIRASYS	Manager - Sales	24/08/24
69				69	Ankur M.	SLB	Account Manager	24/08/24
70				70	R K Singh	SLB	AI Manager	24/08/24
71				71	Sreedhar M.	Digafusion	CEO	24/08/24
72				72	Rashid	Mindstec	RSM	
73				73	Laxmisahi	Emarc int	Sale	
74				74	ABEL	WEYTEC	M.D.	
75				75				

Tender No. CDH2516P27 –

('Design, implementation and support for Command-and-Control Centre & OT Data Lake project for OIL India Ltd)

ANNEXURE-I: INITIAL RESPONSES TO THE PRE-BID QUERIES

SN	RFP Reference/ Page No	RFP Clause No/ RFP Details	Query	OIL's Response
1	Interfacing with operational data sources (page193)	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration b) Key techno-functional requirements | All the above protocols shall be supported out of the box without requiring any external third-party converters or additional development for protocol conversion. It shall be ready to use plug and play type installations requiring only basic settings with protocol related configurations.	Requesting you to please confirm if OT Data Lake system is expected to support native or out of the box integration option with Azure Event Hubs (for Well head monitoring - IoT integration)). Also, we understand that the migration of historical data is expected. Hence, it is considered that the OT Data Lake shall be capable of automatically reading and storing data from JSON, ASCII files (.txt, .xml, .csv etc), and flat files (.txt, .csv) for backfilling. Please confirm.	Data ingestion from Well-Head Monitoring System to OT Data Lake would be through the on-prem SCADA OPC UA Server & not from Cloud as currently shown at Pg#206; hence, integration with Azure Event Hub is not required. Pl refer to the modified Architecture Diagram to be published. The OT Data Lake shall support historical data migration/backfilling from existing OT data sources through APIs, database connectors, historian interfaces, OPC-based interfaces and file-based ingestion mechanisms, including CSV, TXT, ASCII, JSON, XML and equivalent formats as appropriate.
2	OT Data Lake System Performance Metrics (page199)	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration b) Key techno-functional requirements | Addition	Inbound events rate capacity of 150,000 events/sec for raw data has been mentioned. However, outbound events rate metric / specification is missing. What is the minimum outbound event processing capacity expected for serving external connected applications? We have considered 425,000 events/sec as outbound rate when queried by external connected applications. Please confirm.	The requirement of 150,000 events/sec refers to the minimum inbound raw data ingestion capability of the OT Data Lake platform. Bidder's solution must facilitate sufficient outbound events required for data retrieval, analytics, reporting, dashboarding, API access, and integration requirements defined in the tender without performance degradation.
3	OT Data Lake Resources Provision (Page 186) Scalability & Availability	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration a) OT Data Lake Resources Provision b) Key techno-functional requirements | Backup of the solution shall be carried out in OIL's infrastructure managed with Commvault backup software. The bidder shall be responsible for rebuilding of Data Lake from backed up data set in case of any eventuality.	We understand that application and data backup will be conducted via Common Vault backup software and there is no requirement of DR servers for OT Data Lake. Kindly confirm.	>DR Servers are not required for OT Data Lake. >Backup will be executed through OIL's existing Commvault environment. The bidder shall provide all necessary agents, licences and configuration, assist OIL in defining and implementing backup/retention policies, and perform restoration testing and complete Data Lake rebuild/recovery when required.

		Bidder shall be responsible for carrying out regular restoration drill of data and application in coordination with OIL's IT team. The bidder shall also be responsible for preparing backup set for offline backup in cloud or in any other physical location.		
4	Key techno-functional requirements (page 192) CCC & Web Application Users (page 215)	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration b) Key techno-functional requirements 6.3. Develop & Deploy Cloud based CCC Application and mobile app b) Detailed Technical Requirements | 25 Named users shall be considered for the 5 years subscription period. CCC & Web Application Users: g. CCC Operators (24×7 shifts): 15 users h. Supervisors / Engineers / Analysts: 10 users i. j. Executives / Management (view & review): 25 users Admin / Power users: 5 users	OT Data Lake requirements indicates 25 named users. Whereas, the total number of CCC application users has been mentioned as 55 (Operators, Supervisors, Engineers, Power users, executives). Please clarify, if Operational analytical dashboards developed using OT Data Lake visualization tool are expected to be assessed via CCC visualization as embeded in context? Or only output of analytics is expected to be shown in CCC application? If analytical dashboards to be embedded within CCC application, then we need to consider the session licensing for OT data lake users as well (i.e. 25 +55 = 80 users) and if they are common users then it can be total 55 named users. And if only analytical output is required then same can be shown via native integration and additional users of OT data lake will not be required. Please confirm the total number of named users required for OT data Lake.	OIL will review & revert
5	b) Key techno-functional requirements (page 186) c) OT System integration scope (page 200)	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration b) Key techno-functional requirements c) OT System integration scope | Enablement of existing OT systems for OPC UA or equivalent standard communication protocols, along with site-level cybersecurity provisions, shall be provided by OIL.	We understand that OPC UA Servers supply/configuration is not in the scope of the bidder. OPC UA servers' supply and configuration will be managed by OIL. Please confirm. Is it possible to get the current status of OPC UA enablement / readiness for listed OT systems at 3 sites?	Yes, it is confirmed that OPC UA Servers supply/ configuration is not in the scope of the bidder.
6	Unified Value Chain View (page 210)	6.3. Develop & Deploy Cloud based CCC Application and mobile app b) Detailed Technical Requirements | The CCC platform should provide a responsive web interface with dynamic overlays, real-time data binding, and multimonitor layout management; support tablet/mobile responsive breakpoints; integrate REST/GraphQL APIs with pagination, filtering, caching, and data validation	Our understanding is that APIs with pagination, filtering, caching, and data validation pipelines; will be handled at IT data lake end. Relational data will be managed on IT Data Lake side and Time-series data will be managed with OT Data Lake. On the UI perspective, the OS based UI possibilities are limiteless whereas as web interfaces will have limited capabilities. Both UI should be available to be used for empowering users. Suggested clause "The CCC platform should provide a responsive UI which supports microsoft OS based application or web interface with dynamic overlays,	No change; To be guided by existing Tender Clause.

		pipelines; store data in secure time-series and relational databases.	real-time data binding, and multi-monitor layout management; support tablet/mobile responsive breakpoints. The solution architecture refers that the integration with REST/GraphQL APIs with pagination, filtering, caching, and data validation pipelines; is to be done at IT data lake end. Whereas store data in secure time-series shall be in OT data lake and relational databases to be handled at IT data lake end." Please confirm if suggested clause is as expected.	
7	Asset & KPI Data Overlay on Map (page 210)	6.3. Develop & Deploy Cloud based CCC Application and mobile app b) Detailed Technical Requirements | The CCC platform should provide real-time sensor visualization with charts, heatmaps, threshold-based colour coding, and animated flow indicators; integrate push-based streaming APIs (WebSocket/SSE) for live updates; store sensor and visualization data in time-series and documentoriented databases. CCC platform should have a user interface or dashboard and schematics that connects a person to a machine system or a device to achieve human machine interface. The interface should provide displays with modern UI/UX design. System should provide multi-touch and gesture controls such as panning & zooming, swipe, clutter & declutter of graphical layers and a larger view of the process.	The above clause is part of CCC platform/application which is contradictory and undermining basis the architecture of the solution, which is having individual management for OT data lake and IT data lake. Push & Pull mechanism can be decided basis the portability with real-life scenarios. We recommend below suggested/changed clause, if our understanding is correct "The CCC platform should provide real-time sensor visualization with charts, heatmaps, threshold-based colour coding, and animated flow indicators; CCC platform should have a user interface or dashboard and schematics that connects a person to a machine system or a device to achieve human machine interface. The interface should provide displays with modern UI/UX design. System should provide multi-touch and gesture controls such as panning & zooming, swipe, clutter & declutter of graphical layers and a larger view of the process."	No change; To be guided by existing Tender Clause.
8	3D Rendering (Should support future integration) (page 211)	6.3. Develop & Deploy Cloud based CCC Application and mobile app b) Detailed Technical Requirements | The CCC platform should deliver 3D asset visualization with operational overlays and health indicators; integrate metadata ingestion and 3D streaming APIs	Our suggestion of cluase for clear expectations: "The CCC platform shall integrate with Digital twin for 3D asset visualization with operational overlays and health indicators; integrate metadata ingestion and 3D streaming APIs. The digital twin solution shall provide tag based web URL for deep linking and same to be embedded inside CCC application for context driven visualization." Please confirm if suggested clause is as expected.	It is clarified that the CCC Platform shall support visualization of operational assets in 3D along with operational overlays, equipment health indicators and contextual information. The CCC Platform shall be capable of integrating with existing or future Digital Twin platforms, 3D asset models, and associated metadata repositories through standard integration mechanisms and APIs.

9	Data and Analytics Engine (page 211)	6.3. Develop & Deploy Cloud based CCC Application and mobile app b) Detailed Technical Requirements | Addition	Data storage capacity from CCC perspective is missing. Please confirm if below clause is as expected then request you to amend the clause accordingly. "CCC platform should have inbuilt Historian to capture and store high-fidelity industrial and enterprise data. Historian should high-performance process database capable of storing the huge volumes of data generated. And it shall have capability to support up to 2 million I/Os for future scaling purpose."	The proposed addition is not accepted. The OT Data Lake shall serve as the primary platform for collection, storage, contextualization, management, and retrieval of time-series operational data and historian functionality. Likewise, IT Data Lake is for enterprise data. The CCC Platform should shall include required application-level data cache, KPI repository, metadata repository, and performance-optimization mechanisms necessary to support the required visualization, dashboarding, workflow, reporting, mobile application, and operational response requirements to ensure performance. Therefore, no separate requirement for an inbuilt historian within the CCC Platform is envisaged under the current scope.
10	Operation Management Interface (page 212)	6.3. Develop & Deploy Cloud based CCC Application and mobile app b) Detailed Technical Requirements | UI/UX for CCC platform should supports multi-monitor. And shall works on both OS based native application as well as web-browser (RDP over HTML).	Our suggestion of cluase for better clarity: "UI/UX for CCC platform should supports multi-monitor. And shall works well either OS based native application or web-browser or web terminal (i.e. RDP over HTML)" Please confirm if suggested clause is as expected.	No change; to be guided by existing Tender Clause;
11	Secure Access & Audit Trail	6.3. Develop & Deploy Cloud based CCC Application and mobile app b) Detailed Technical Requirements | Provide unified login with SSO and MFA support, session timeout, and device trust management; implement authentication, authorization, and audit logging services; monitor session activity; store audit logs in secure repositories.	It is mentioned that - Provide unified login with SSO and MFA support. We support SSO through Microsoft cloud based AD. Please confirm if this is acceptable.	The solution shall integrate with OIL's enterprise Microsoft Entra ID for SSO and MFA. The bidder shall implement RBAC, session controls, audit logging and solution-side identity integration; OIL IT will provide approved tenant-side access and coordinate required enterprise-identity configuration.
12	Business Rule Engine	6.3. Develop & Deploy Cloud based CCC Application and mobile app b) Detailed Technical Requirements | Addition	It is recommended that following Incident Management capabilities shall be included. "Platform should have the Incident workflow management. The CCC platform should have a built-in alarm handling facility based on configurable cause and effect rules. The business rules engine shall be able to distinguish between "early warning or anticipation" type mode of operation and an "emergency or crisis" mode of operation. The CCC shall provide capability to do a simulation run of a newly	The CCC Platform must have Event & Alarm Management, configurable alerts, workflow automation, escalation mechanisms, notifications, task management, and incident response capabilities. Accordingly, the proposed solution must support configurable business rules, event handling, alarm management, workflow initiation, escalation procedures, and operational response mechanisms appropriate for Command & Control Centre operations.

			created/added business rule before it is activated." Please confirm if suggested clause is as expected.	
13	Workflow Management	6.3. Develop & Deploy Cloud based CCC Application and mobile app b) Detailed Technical Requirements | Addition	Workflow part is missing to support Mobility. It is recommended that following Workflow management capabilities shall be included. "The platform should have process designer - Intuitive visual tool that offers an integrated workflow process design and deployment tool for use by departments, developers' community, technical architects, and ISVs without any restriction for X or Y axis for design interface. Graphical process designer must be 100% web-based tool that enables BPM practitioners to define processes to achieve smart System objectives. The platform shall have cross functional workflows with the ability to communicate between People, devices and systems. Workflow function should provide facility to trigger a corrective action workflow and define the stakeholders for the same. Workflow system should be able to create, assign, track, and report on the lifecycle of tasks during an incident. The workflow system should allow a specific task to be decomposed into sub-tasks. The workflow engine should be able to dynamic assignment of tasks based on roles, name, designation, or any other attribute present in the resource database. The criticality of task within workflow should be dynamically changed depending on the response SLA, for example, in case of delays in response to the task should change the task to high priority task. The workflow should be able to do queue management for management of resources performing similar functions. Queue Management allows automatic, semi-automatic and manual modes of task dispatch. FIFO, LIFO, and Round-robin are some of the algorithms supported." Please confirm if suggested clause is as expected.	The tender already envisages Event & Alarm Management, configurable alerts, workflow automation, escalation mechanisms, notifications, task management, and incident response capabilities as part of the CCC Platform requirements. Accordingly, the proposed solution should support configurable business rules, event handling, alarm management, workflow initiation, escalation procedures, and operational response mechanisms appropriate for Command & Control Centre operations. Bidder's request for addition not accepted.

14	Standard Operating Procedure	6.3. Develop & Deploy Cloud based CCC Application and mobile app b) Detailed Technical Requirements | Addition	It is recomMended that following Standard Operating Procedure capabilities shall be included. "CCC platform should provide for authoring and invoking un-limited number of configurable and customizable standard operating procedures through graphical drag and drop design tool preferably using workflow engine. Standard Operating Procedures should be established, approved sets of actions considered to be the best practices for responding to a situation or carrying out an operation. The users should be able to also add comments to or stop the SOP (prior to completion). There should be provision for automatically logging the actions, changes, and commentary for the SOP and its activities, so that an electronic record is available for after-action review. The SOP Tool should have capability to define the following activity types: Manual Activity - An activity that is done manually by the owner and provide details of incident/event with added description. Automation Activity - An activity that initiates and tracks a specific incident and select a predefined incident types from the defined list in context with incident. If-Then-Else Activity - A conditional activity that allows branching based on specific criteria. Either enter or select values for Then and Else. Notification Activity - An activity that displays a notification window that contains an email template for the activity owner to complete, and then sends an email notification. SOP Activity - An activity that launches another standard operating procedure. System should be able to read data from flat CSV files. The SOPs defined in the system should be easily editable by an administrator with drag and drop capabilities. CCC platform shall present the workflow and task information in a clear and logical manner on the incidents screen. CCC platform system shall include a section that will contain the policy and standard operating procedures with easy to search functions to support the Operators during a crisis CCC platform should be able to pass the SOP step on to operator workstation for the user to respond based on his role and responsibility in the SOP to achieve faster response to the incidences or events." Please confirm if suggested clause is as expected.	Bidder's request for addition not accepted.

15	Enablement for Design Digital Twin functional requirements	6.3. Develop & Deploy Cloud based CCC Application and mobile app b) Detailed Technical Requirements | The CCC platform shall provide an embedded Digital Twin viewer within the CCC UI to access and visualize the Digital Twin models (no separate/external application launch). The embedded Digital Twin experience in CCC shall provide a dashboard/UI for search, retrieval, and collaboration on Digital Twin information.	It is recomMended that - The digital twin solution shall provide tag based web URL for deep linking and same to be embedded inside CCC application for context driven visualization. The CCC platform shall provide an embedded Digital Twin viewer within the CCC UI to access and visualize the Digital Twin models (no separate/external application launch). The embedded Digital Twin experience in CCC shall provide a dashboard/UI for search, retrieval, and collaboration on Digital Twin information. The licenses for digital twin platform for handling 1D, 2D and 3D is not part of current scope. And same licenses to be considered in future phase requirements and it has to support the CCC platform as a extended module. Please confirm if suggested clause is as expected.	No change in the tender clause is envisaged. The CCC Platform shall provide the capability to access, visualize and navigate Digital Twin information through an embedded user experience within the CCC environment as specified in the tender through an appropriate integration approaches. The bidder shall factor all licenses, software components, interfaces, connectors, viewers, and associated capabilities required to meet the Digital Twin-related functionality specified under the current Phase-1 scope of the tender. The proposed solution shall additionally be scalable and capable of accommodating future expansion of Digital Twin functionality, models, assets, users, and licenses without major architectural changes.
16	8.1 a	8.1. Overall Cyber Security and Governance Requirements | Establish and implement Security Policy aligned with leading standards and frameworks such as ISA/IEC 62443, NCIIPC Guidelines, ISO/IEC 27001:2013, and NIST Cybersecurity Framework.	Our interpretation is that the alignment with one or more listed frameworks or standards is fine. Please confirm. Suggested clause : "Establish and implement Security Policy aligned with leading standards and frameworks such as ISA/IEC 62443 or NCIIPC Guidelines, or ISO/IEC 27001:2013, or NIST Cybersecurity Framework or all." Please confirm if suggested clause is as expected.	These frameworks are complementary, not mutually exclusive. They address cybersecurity requirements at multiple domains. The Clause does not require formal certification against all listed frameworks against this clause. However, the architecture, controls and implementation approach shall be aligned with the applicable provisions of the relevant standards and frameworks identified in the tender, including ISA/IEC 62443, NCIIPC Guidelines, ISO/IEC 27001, and NIST Cybersecurity Framework, as applicable to the respective components of the solution
17	8.2 c	8.2. Network Security (page 219) | During OT system integration, Align with industry frameworks like IEC 62443, NIST CSF, or ISO 27001 for industrial cybersecurity.	Our interpretation is that the alignment with one or more listed frameworks or standards is fine. Please confirm. Suggested Clause: "During OT system integration, Align with industry frameworks like IEC 62443, or NIST CSF, or ISO 27001 for industrial cybersecurity." Please confirm if suggested clause is as expected.	These frameworks are complementary, not mutually exclusive. They address cybersecurity requirements at multiple domains. The Clause does not require formal certification against all listed frameworks. However, the architecture, controls and implementation approach shall be aligned with the applicable provisions of the relevant standards and frameworks identified in the tender, including ISA/IEC 62443, NCIIPC Guidelines, ISO/IEC 27001, and NIST Cybersecurity Framework, as applicable to the respective components of the solution

18	c. Hypercare & Post Go-Live Stabilization Support	7. AMC for 5 years including Hyper Care | Dedicated support is expected from implementation team on - Model refinement, tuning and re-training, wherever applicable	We understand that modeling for AI/ML-driven predictive and prescriptive analytics, advanced analytics or AI use case development is part of Phase 2 implementation. Hence this model tuning/re-training is not applicable under current scope. Please confirm, if our understanding is correct.	No AI/ML model development or retraining is required in Phase-1. The platform shall remain future-ready.
19	Inspection (page 230) Scope of work (Page 105)	PART-4 SECTION-III SPECIAL CONDITIONS OF CONTRACT (SCC) 4. Scope of work | OIL shall have the right to inspect, audit and review: a) Source code repositories, configuration files and deployment scripts. All source code, models, workflows, dashboards, and platform customizations shall be the intellectual property of OIL, with full rights to extend, modify, or replicate the solution.	Platform required under this RFQ is a COTS platform so source code for the platform cannot be made available to OIL, however we can provide backup of application or customized code/widgets/tools specifically created for functionality required in this RFP. Kindly confirm, if our understanding is correct.	Core COTS/OEM intellectual property remains with the owner. OIL-specific code, configurations, dashboards, workflows and integrations developed under the contract shall be provided to OIL.
20	3.1. IT Systems	3. Current state overview | Includes CCTV monitoring, Drone Surveillance and upcoming Video Analytics.	We understand that CCTV Monitoring and Drone Surveillance feed will be provided thru common VMS (Video Management System). CCC Platform will integrate with VMS system using RestAPI / RTSP or other suitable communication method to achieve required functionality. CCC Platform will integrate with Video Analytics system to capture and display alerts and required data along with alerts. Storage of video feed data will be managed by VMS and is not part of OT data lake or CCC Kindly confirm, if our understanding is correct.	CCTV and video-analytics integration is required for alerts and related data. Video-feed storage shall remain with the VMS; detailed interfaces will be finalized a during design phase.
21	4.1	4. Scope of work | Comprehensive modelling of wells, networks, and surface facilities shall be undertaken to enable realtime visualization & performance analysis and overlay of alerts and insights.	Specialized tools and software are used for modelling of wells and performance analysis, we understand that CCC scope includes integration of data from such tools/application thru OPC UA or Rest API, store data in data platform and display on CCC Platform along with alarms and alerts. Whereas providing solution/software for Comprehensive modelling of wells, networks, and surface facilities are not under the current scope of tender RFP. Kindly confirm, if our understanding is correct.	The current scope does not include procurement, implementation, or development of specialized reservoir modelling, well modelling, production engineering modelling, hydraulic simulation, or integrated production optimization software unless specifically offered and identified by the bidder.

22	4.15	4. Scope of work | The platform shall support operator guidance during critical events, enabling control room staff to push actionable alerts to field personnel on Mobile App. This includes sending annotated images, predefined SOPs, and real-time voice or video communications to facilitate quick decision-making and on-ground coordination.	This function will be achieved through re-direction to other chat/calling apps e.g., Whatsapp/Telegram/or similar apps. Kindly confirm, if our understanding is correct and bidder is free to choose chat/calling application.	The CCC Platform shall provide the capability for enabling operator guidance and communication with field personnel during operational and incident scenarios. This includes transmission of alerts, notifications, annotated images, SOPs, and support for voice and/or video communication as specified in the tender. Bidders may propose suitable communication platform provided the same meets the functional, security, audit, traceability, and compliance requirements of the tender.
23	III. Interactive Visualization (page 207)	6.3. Develop & Deploy Cloud based CCC Application and mobile app | Provides support for light/dark themes and auto-restore of sessions.	We recommend RBAC (Role Based Access Control) whereas User Personalization and auto restore of sessions in terms of Book marking is not recommended basis the past experiences of such complex projects, although support for theme/layout toggles and notifications shall be made available. Please confirm if above statement is acceptable. Please specify expectations around "auto-restore of sessions".	Tender Clause relates to User experience and productivity feature whereas RBAC is related to Security & authorization feature. Through auto-restoration, when a user logs back in, the CCC should be capable of restoring user dashboard layout, open widgets, asset views, KPI selections etc. reflecting the last visualization context.
24	VI. Event & Alarm Management: (page 208)	6.3. Develop & Deploy Cloud based CCC Application and mobile app | e) Delivers real-time notifications via multiple channels, including email, phone, and messaging platforms (e.g., WhatsApp).	Integration for messaging platform (e.g. WhatsAPP) requires specific approval, business account mapping and recurring charges. We understand that OIL will provide business account and required access /API to interface with such application. Recurring charges will be in scope of OIL.	WhatsApp business account will be provisioned by OIL. Recurring cost to be factored by bidder.
25	VIII. Reporting & Collaboration: (page 208)	6.3. Develop & Deploy Cloud based CCC Application and mobile app | d) Allows initiation of cases or service requests (SRs) based on identified anomalies, performance deviations, or improvement opportunities.	We understand that anomaly detection and improvement opportunities are use cases for AI/ML platform which is part of future scope. Kindly confirm, if our understanding is correct.	Advanced AI/ML-based anomaly detection, predictive analytics, prescriptive analytics, forecasting models, and similar capabilities identified under Phase-2 are not mandatory deliverables under the current Phase-1 implementation scope. However, the requirement for initiation of cases, service requests (SRs), workflow actions, notifications, and actions based on identified operational events, KPI deviations, alarms, threshold breaches, data quality exceptions, and other business or operational conditions remains within the current Phase-1 scope.

26	XI. Functions in scope: (page 210)	6.3. Develop & Deploy Cloud based CCC Application and mobile app | KPIs: Approximately 350–400 across the above functions.	We understand that 350-400 KPI is total number of KPIs required for all 11 function mentioned, and not for individual function each. Please confirm, if our understanding is correct.	The indicative 350–400 KPIs apply across the listed functions. The detailed KPI catalogue, formulas and mappings will be finalized during design.
27	User Personalization (page 212)	6.3. Develop & Deploy Cloud based CCC Application and mobile app | Support theme/layout toggles, notification preferences; provide secure user preference management with scalable storage of personalization settings in document-oriented repositories.	We recommend RBAC (Role Based Access Control) whereas User Personalization and auto restore of sessions in terms of Book marking is not recommended basis the past experiences of such complex projects, although support for theme/layout toggles and notifications shall be made available. Please confirm if above statement is acceptable.	No change, to be guided by Tender Clause.
28	Page 261	Part - 4 Section IV H) CCC Application | Addition	A separate commercial line item is requested for the Command & Control Centre (CCC) Application Software Subscription License. The CCC software should be treated as a Commercial Off-The-Shelf (COTS) product.	The bidder has to factor the same against BOQ Item Slno. Please refer to amended BoQ to be published
29	31	3.2. A EXPERIENCE CRITERIA | The bidder must have successfully executed/completed "Command & Control Centre Infrastructure Works, which includes supply, installation, integration and commissioning of Command & Control / Integrated Command Centre / War Room facilities including control-room civil & interior fit-out, video-wall(s), operator consoles, AV/VC systems and associated utilities" over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals as under:	We request you to kindly consider expanding the eligible industry segments to include Smart City and Safe City projects. Integrated Command and Control Centres (ICCC) and Safe City Command Centres in Smart City initiatives involve identical core technologies and execution capabilities—including video wall deployment, operator console integration, AV/VC systems, civil and interior fit-outs, and associated IT/utility infrastructure. Allowing experience from Smart City and Safe City projects will encourage broader, highly qualified participation and competitive bidding while ensuring full compliance with your technical standards.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.

30	32	3.2. B EXPERIENCE CRITERIA | The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,97,99,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals:	We request you to kindly consider expanding the eligible industry segments to automotive, F&B, Semicon or equivalent.	OIL will review and revert.
31	34	3.2.2.I | Eligibility criteria in case bids are submitted based on technical experience of Parent/Subsidiary Company	We request you to kindly clarify whether this provision applies equally to individual members of a Consortium. Specifically, if a member of a consortium (either Lead Member or Non-Lead Member) does not independently meet a specific technical experience requirement, can that consortium member utilize the technical credentials and experience of its Parent/Supporting Company (holding >50% equity share capital)	Clarified. To be guided as per tender existing clause.
32	39	(IV) Bid from Consortium of Companies | (xi) Constitution of Consortium: The members of the consortium should not be more than 03 (Three). If during evaluation of bid, a consortium leader proposes any alterations/changes in the constitution or replacement or inclusion or expulsion of any partner(s)/member(s) of the consortium which had originally submitted the bid, to drive some advantages/benefits based on any development(s) having come to his knowledge at any time, the bid of such a consortium shall be liable for rejection. Similarly, under such a situation the contract shall be liable for termination, if already awarded.	We request you to kindly consider increasing the maximum allowable number of consortium members from three (03) to four (04). The scope of work under this tender is highly multidisciplinary, encompassing civil and interior fit-outs, specialized AV/VC and command center infrastructure, OT/industrial data ingestion and asset modeling, and centralized software/operational data platforms. Allowing a maximum of 04 (four) members will enable niche technology OEMs, specialized system integrators, and infrastructure domain experts to pool their core competencies effectively, ensuring seamless execution and superior project delivery.	No change in no. of Consortium members .
33	Interfacing with operational data sources (page193)	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration b) Key techno-functional requirements | All the above protocols shall be supported out of the box without requiring any external third-party converters or additional development for protocol conversion. It shall be ready to use	Requesting you to please confirm if OT Data Lake system is expected to support native or out of the box integration option with Azure Event Hubs (for Well head monitoring - IoT integration)). Also, we understand that the migration of historical data is expected. Hence, it is cosnidered that the OT Data Lake shall be capable of automatically reading and storing data from JSON, ASCII files (.txt, .xml, .csv etc), and flat files (.txt, .csv) for backfilling. Please confirm.	Data ingestion from Well-Head Monitoring System to OT Data Lake would be through the on-prem SCADA OPC UA Server & not from Cloud as currently shown in modified Architecture Diagram to be published to be published at Pg#206; hence, integration with Azure Event Hub is not required. Pl refer to the modified Architecture Diagram to be published to be published. The OT Data Lake shall support historical data

		plug and play type installations requiring only basic settings with protocol related configurations.		migration/backfilling from existing OT data sources through APIs, database connectors, historian interfaces, OPC-based interfaces and file-based ingestion mechanisms, including CSV, TXT, ASCII, JSON, XML and equivalent formats as appropriate.
34	OT Data Lake System Performance Metrics (page199)	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration b) Key techno-functional requirements | Addition	Inbound events rate capacity of 150,000 events/sec for raw data has been mentioned. However, outbound events rate metric / specification is missing. What is the minimum outbound event processing capacity expected for serving external connected applications? We have considered 425,000 events/sec as outbound rate when queried by external connected applications. Please confirm.	The requirement of 150,000 events/sec refers to the minimum inbound raw data ingestion capability of the OT Data Lake platform. Bidder's solution must facilitate sufficient outbound events required for data retrieval, analytics, reporting, dashboarding, API access, and integration requirements defined in the tender without performance degradation.
35	OT Data Lake Resources Provision (Page 186) Scalability & Availability	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration a) OT Data Lake Resources Provision b) Key techno-functional requirements | Backup of the solution shall be carried out in OIL's infrastructure managed with Commvault backup software. The bidder shall be responsible for rebuilding of Data Lake from backed up data set in case of any eventuality. Bidder shall be responsible for carrying out regular restoration drill of data and application in coordination with OIL's IT team. The bidder shall also be responsible for preparing backup set for offline backup in cloud or in any other physical location.	We understand that application and data backup will be conducted via CommonVault backup software and there is no requirement of DR servers for OT Data Lake. Kindly confirm.	DR is not required at the current stage.
36	Key techno-functional requirements (page 192) CCC & Web Application Users (page 215)	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration b) Key techno-functional requirements 6.3. Develop & Deploy Cloud based CCC Application and mobile app b) Detailed Technical Requirements | 25 Named users shall be considered for the 5 years subscription period. CCC & Web Application Users: g. CCC Operators (24×7 shifts): 15 users h.	OT Data Lake requirements indicates 25 named users. Whereas, the total number of CCC application users has been mentioned as 55 (Operators, Supervisors, Engineers, Power users, executives). Please clarify, if Operational analytical dashboards developed using OT Data Lake visualization tool are expected to be assessed via CCC visualization as embedded in context? Or only output of analytics is expected to be shown in CCC application? If analytical dashboards to be embedded within CCC application, then we need to consider the session licensing for OT data lake users as	Refer to amended Clause to be published

		Supervisors / Engineers / Analysts: 10 users i. j. Executives / Management (view & review): 25 users Admin / Power users: 5 users	well (i.e. 25 +55 = 80 users) and if they are common users then it can be total 55 named users. And if only analytical output is required then same can be shown via native integration and additional users of OT data lake will not be required. Please confirm the total number of named users required for OT data Lake.	
37	b) Key techno-functional requirements (page 186) c) OT System integration scope (page 200)	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration b) Key techno-functional requirements c) OT System integration scope | Enablement of existing OT systems for OPC UA or equivalent standard communication protocols, along with site-level cybersecurity provisions, shall be provided by OIL.	We understand that OPC UA Servers supply/configuration is not in the scope of the bidder. OPC UA servers' supply and configuration will be managed by OIL. Please confirm. Is it possible to get the current status of OPC UA enablement / readiness for listed OT systems at 3 sites?	Yes, it is confirmed that OPC UA Servers supply/ configuration is not in the scope of the bidder.
38	Unified Value Chain View (page 210)	6.3. Develop & Deploy Cloud based CCC Application and mobile app b) Detailed Technical Requirements | The CCC platform should provide a responsive web interface with dynamic overlays, real-time data binding, and multimonitor layout management; support tablet/mobile responsive breakpoints; integrate REST/GraphQL APIs with pagination, filtering, caching, and data validation pipelines; store data in secure time-series and relational databases.	Our understanding is that APIs with pagination, filtering, caching, and data validation pipelines; will be handled at IT data lake end. Relational data will be managed on IT Data Lake side and Time-series data will be managed with OT Data Lake. On the UI perspective, the OS based UI possibilities are limitless whereas as web interfaces will have limited capabilities. Both UI should be available to be used for empowering users. Suggested clause "The CCC platform should provide a responsive UI which supports microsoft OS based application or web interface with dynamic overlays, real-time data binding, and multi-monitor layout management; support tablet/mobile responsive breakpoints. The solution architecture refers that the integration with REST/GraphQL APIs with pagination, filtering, caching, and data validation pipelines; is to be done at IT data lake end. Whereas store data in secure time-series shall be in OT data lake and relational databases to be handled at IT data lake end." Please confirm if suggested clause is as expected.	No change; To be guided by existing Tender Clause.

39	Asset & KPI Data Overlay on Map (page 210)	6.3. Develop & Deploy Cloud based CCC Application and mobile app b) Detailed Technical Requirements | The CCC platform should provide real-time sensor visualization with charts, heatmaps, threshold-based colour coding, and animated flow indicators; integrate push-based streaming APIs (WebSocket/SSE) for live updates; store sensor and visualization data in time-series and documentoriented databases. CCC platform should have a user interface or dashboard and schematics that connects a person to a machine system or a device to achieve human machine interface. The interface should provide displays with modern UI/UX design. System should provide multi-touch and gesture controls such as panning & zooming, swipe, clutter & declutter of graphical layers and a larger view of the process.	The above clause is part of CCC platform/application which is contradictory and undermining basis the architecture of the solution, which is having individual management for OT data lake and IT data lake. Push & Pull mechanism can be decided basis the portability with real-life scenarios. We recommend below suggested/changed clause, if our understanding is correct "The CCC platform should provide real-time sensor visualization with charts, heatmaps, threshold-based colour coding, and animated flow indicators; CCC platform should have a user interface or dashboard and schematics that connects a person to a machine system or a device to achieve human machine interface. The interface should provide displays with modern UI/UX design. System should provide multi-touch and gesture controls such as panning & zooming, swipe, clutter & declutter of graphical layers and a larger view of the process."	No change; To be guided by existing Tender Clause.
40	3D Rendering (Should support future integration) (page 211)	6.3. Develop & Deploy Cloud based CCC Application and mobile app b) Detailed Technical Requirements | The CCC platform should deliver 3D asset visualization with operational overlays and health indicators; integrate metadata ingestion and 3D streaming APIs	Our suggestion of cluase for clear expectations: "The CCC platform shall integrate with Digital twin for 3D asset visualization with operational overlays and health indicators; integrate metadata ingestion and 3D streaming APIs. The digital twin solution shall provide tag based web URL for deep linking and same to be embedded inside CCC application for context driven visualization." Please confirm if suggested clause is as expected.	It is clarified that the CCC Platform shall support visualization of operational assets in 3D along with operational overlays, equipment health indicators and contextual information. The CCC Platform shall be capable of integrating with existing or future Digital Twin platforms, 3D asset models, and associated metadata repositories through standard integration mechanisms and APIs.
41	Data and Analytics Engine (page 211)	6.3. Develop & Deploy Cloud based CCC Application and mobile app b) Detailed Technical Requirements | Addition	Data storage capacity from CCC perspective is missing. Please confirm if below clause is as expected then request you to amend the clause accordingly. "CCC platform should have inbuilt Historian to capture and store high-fidelity industrial and enterprise data. Historian should high-performance process database capable of storing the huge volumes of data generated. And it shall have capability to support up to 2 million I/Os for future scaling purpose."	The proposed addition is not accepted. The OT Data Lake shall serve as the primary platform for collection, storage, contextualization, management, and retrieval of time-series operational data and historian functionality. Likewise, IT Data Lake is for enterprise data. The CCC Platform shall function primarily as the visualization, analytics presentation, workflow, alerting, dashboarding, and user interaction layer and shall consume data from the OT Data Lake, IT Middleware and IT Data Lake. Therefore, no separate requirement for an inbuilt historian

				within the CCC Platform is envisaged under the current scope.
42	Operation Management Interface (page 212)	6.3. Develop & Deploy Cloud based CCC Application and mobile app b) Detailed Technical Requirements | UI/UX for CCC platform should supports multi-monitor. And shall works on both OS based native application as well as web-browser (RDP over HTML).	Our suggestion of cluase for better clarity: "UI/UX for CCC platform should supports multi-monitor. And shall works well either OS based native application or web-browser or web terminal (i.e. RDP over HTML)" Please confirm if suggested clause is as expected.	No Change; to be guided by tender document
43	Secure Access & Audit Trail	6.3. Develop & Deploy Cloud based CCC Application and mobile app b) Detailed Technical Requirements | Provide unified login with SSO and MFA support, session timeout, and device trust management; implement authentication, authorization, and audit logging services; monitor session activity; store audit logs in secure repositories.	It is mentioned that - Provide unified login with SSO and MFA support. We support SSO through Microsoft cloud based AD. Please confirm if this is acceptable.	The solution shall integrate with OIL's enterprise Microsoft Entra ID for SSO and MFA. The bidder shall implement RBAC, session controls, audit logging and solution-side identity integration; OIL IT will provide approved tenant-side access and coordinate required enterprise-identity configuration.
44	Business Rule Engine	6.3. Develop & Deploy Cloud based CCC Application and mobile app b) Detailed Technical Requirements | Addition	It is recommended that following Incident Management capabilities shall be included. "Platform should have the Incident workflow management. The CCC platform should have a built-in alarm handling facility based on configurable cause and effect rules. The business rules engine shall be able to distinguish between "early warning or anticipation" type mode of operation and an "emergency or crisis" mode of operation. The CCC shall provide capability to do a simulation run of a newly created/added business rule before it is activated." Please confirm if suggested clause is as expected.	The CCC Platform must have Event & Alarm Management, configurable alerts, workflow automation, escalation mechanisms, notifications, task management, and incident response capabilities. Accordingly, the proposed solution must support configurable business rules, event handling, alarm management, workflow initiation, escalation procedures, and operational response mechanisms appropriate for Command & Control Centre operations.
45	Workflow Management	6.3. Develop & Deploy Cloud based CCC Application and mobile app b) Detailed Technical Requirements | Addition	Workflow part is missing to support Mobility. It is recommended that following Workflow management capabilities shall be included. "The platform should have process designer - Intuitive visual tool that offers an integrated workflow process design and deployment tool for use by departments, developers' community, technical architects, and ISVs without any restriction for X or Y axis for design interface. Graphical process	The tender already envisages Event & Alarm Management, configurable alerts, workflow automation, escalation mechanisms, notifications, task management, and incident response capabilities as part of the CCC Platform requirements. Accordingly, the proposed solution should support configurable business rules, event handling, alarm management, workflow initiation, escalation procedures, and operational response mechanisms appropriate for

			designer must be 100% web-based tool that enables BPM practitioners to define processes to achieve smart System objectives. The platform shall have cross functional workflows with the ability to communicate between People, devices and systems. Workflow function should provide facility to trigger a corrective action workflow and define the stakeholders for the same. Workflow system should be able to create, assign, track, and report on the lifecycle of tasks during an incident. The workflow system should allow a specific task to be decomposed into sub-tasks. The workflow engine should be able to dynamic assignment of tasks based on roles, name, designation, or any other attribute present in the resource database. The criticality of task within workflow should be dynamically changed depending on the response SLA, for example, in case of delays in response to the task should change the task to high priority task. The workflow should be able to do queue management for management of resources performing similar functions. Queue Management allows automatic, semi-automatic and manual modes of task dispatch. FIFO, LIFO, and Round-robin are some of the algorithms supported." Please confirm if suggested clause is as expected.	Command & Control Centre operations.Bidder's request for addition not accepted.
46	Standard Operating Procedure	6.3. Develop & Deploy Cloud based CCC Application and mobile app b) Detailed Technical Requirements | Addition	It is recommended that following Standard Operating Procedure capabilities shall be included. "CCC platform should provide for authoring and invoking un-limited number of configurable and customizable standard operating procedures through graphical drag and drop design tool preferably using workflow engine. Standard Operating Procedures should be established, approved sets of actions considered to be the best practices for responding to a situation or carrying out an operation. The users should be able to also add comments to or stop the SOP (prior to completion). There should be provision for automatically logging the actions, changes, and commentary for the SOP and its activities, so that an electronic record is available for after-action review. The SOP Tool should have capability to define the following activity types: Manual Activity - An activity that is done manually by the owner and provide details of incident/event with added description. Automation Activity - An activity that initiates and tracks a specific incident and select a predefined incident types from the defined list in context with incident. If-Then-Else Activity - A conditional activity that allows branching based on	Bidder's request for addition not accepted.

			specific criteria. Either enter or select values for Then and Else. Notification Activity - An activity that displays a notification window that contains an email template for the activity owner to complete, and then sends an email notification. SOP Activity - An activity that launches another standard operating procedure. System should be able to read data from flat CSV files. The SOPs defined in the system should be easily editable by an administrator with drag and drop capabilities. CCC platform shall present the workflow and task information in a clear and logical manner on the incidents screen. CCC platform system shall include a section that will contain the policy and standard operating procedures with easy to search functions to support the Operators during a crisis CCC platform should be able to pass the SOP step on to operator workstation for the user to respond based on his role and responsibility in the SOP to achieve faster response to the incidences or events." Please confirm if suggested clause is as expected.	
47	Enablement for Design Digital Twin functional requirements	6.3. Develop & Deploy Cloud based CCC Application and mobile app b) Detailed Technical Requirements | The CCC platform shall provide an embedded Digital Twin viewer within the CCC UI to access and visualize the Digital Twin models (no separate/external application launch). The embedded Digital Twin experience in CCC shall provide a dashboard/UI for search, retrieval, and collaboration on Digital Twin information.	It is recommended that - The digital twin solution shall provide tag based web URL for deep linking and same to be embedded inside CCC application for context driven visualization. The CCC platform shall provide an embedded Digital Twin viewer within the CCC UI to access and visualize the Digital Twin models (no separate/external application launch). The embedded Digital Twin experience in CCC shall provide a dashboard/UI for search, retrieval, and collaboration on Digital Twin information. The licenses for digital twin platform for handling 1D, 2D and 3D is not part of current scope. And same licenses to be considered in future phase requirements and it has to support the CCC platform as a extended module. Please confirm if suggested clause is as expected.	No change in the tender clause is envisaged.The CCC Platform shall provide the capability to access, visualize and navigate Digital Twin information through an embedded user experience within the CCC environment as specified in the tender through an appropriate integration approaches.The bidder shall factor all licenses, software components, interfaces, connectors, viewers, and associated capabilities required to meet the Digital Twin-related functionality specified under the current Phase-1 scope of the tender.The proposed solution shall additionally be scalable and capable of accommodating future expansion of Digital Twin functionality, models, assets, users, and licenses without major architectural changes.
48	8.1 a	8.1. Overall Cyber Security and Governance Requirements | Establish and implement Security Policy aligned with leading standards and frameworks such as ISA/IEC 62443, NCIIPC Guidelines, ISO/IEC 27001:2013, and NIST Cybersecurity Framework.	Our interpretation is that the alignment with one or more listed frameworks or standards is fine. Please confirm. Suggested clause : "Establish and implement Security Policy aligned with leading standards and frameworks such as ISA/IEC 62443 or NCIIPC Guidelines, or ISO/IEC 27001:2013, or NIST Cybersecurity Framework or all." Please confirm if suggested clause is as expected.	These frameworks are complementary, not mutually exclusive. They address cybersecurity requirements at multiple domains. The Clause does not require formal certification against all listed frameworks against this clause. However, the architecture, controls and implementation approach shall be aligned with the applicable provisions of the relevant standards and frameworks identified in the tender, including ISA/IEC 62443, NCIIPC Guidelines, ISO/IEC 27001, and NIST Cybersecurity Framework, as applicable to the respective components of the solution

49	8.2 c	8.2. Network Security (page 219) | During OT system integration, Align with industry frameworks like IEC 62443, NIST CSF, or ISO 27001 for industrial cybersecurity.	Our interpretation is that the alignment with one or more listed frameworks or standards is fine. Please confirm. Suggested Clause: "During OT system integration, Align with industry frameworks like IEC 62443, or NIST CSF, or ISO 27001 for industrial cybersecurity." Please confirm if suggested clause is as expected.	These frameworks are complementary, not mutually exclusive. They address cybersecurity requirements at multiple domains. The Clause does not require formal certification against all listed frameworks. However, the architecture, controls and implementation approach shall be aligned with the applicable provisions of the relevant standards and frameworks identified in the tender, including ISA/IEC 62443, NCIIPC Guidelines, ISO/IEC 27001, and NIST Cybersecurity Framework, as applicable to the respective components of the solution
50	c. Hypercare & Post Go-Live Stabilization Support	7. AMC for 5 years including Hyper Care | Dedicated support is expected from implementation team on - Model refinement, tuning and re-training, wherever applicable	We understand that modeling for AI/ML-driven predictive and prescriptive analytics, advanced analytics or AI use case development is part of Phase 2 implementation. Hence this model tuning/re-training is not applicable under current scope. Please confirm, if our understanding is correct.	No AI/ML model development or retraining is required in Phase-1. The platform shall remain future-ready.
51	Inspection (page 230) Scope of work (Page 105)	PART-4 SECTION-III SPECIAL CONDITIONS OF CONTRACT (SCC) 4. Scope of work | OIL shall have the right to inspect, audit and review: a) Source code repositories, configuration files and deployment scripts. All source code, models, workflows, dashboards, and platform customizations shall be the intellectual property of OIL, with full rights to extend, modify, or replicate the solution.	Platform required under this RFQ is a COTS platform so source code for the platform cannot be made available to OIL, however we can provide backup of application or customized code/widgets/tools specifically created for functionality required in this RFP. Kindly confirm, if our understanding is correct.	Core COTS/OEM intellectual property remains with the owner. OIL-specific code, configurations, dashboards, workflows and integrations developed under the contract shall be provided to OIL.
52	3.1. IT Systems	3. Current state overview | Includes CCTV monitoring, Drone Surveillance and upcoming Video Analytics.	We understand that CCTV Monitoring and Drone Surveillance feed will be provided thru common VMS (Video Management System). CCC Platform will integrate with VMS system using RestAPI / RTSP or other suitable communication method to achieve required functionality. CCC Platform will integrate with Video Analytics system to capture and display alerts and required data along with alerts. Storage of video feed data will be managed by VMS and is not part of OT data lake or CCC Kindly confirm, if our understanding is correct.	CCTV and video-analytics integration is required for alerts and related data. Video-feed storage shall remain with the VMS; detailed interfaces and data flows will be finalized a during design phase.

53	4.1	4. Scope of work | Comprehensive modelling of wells, networks, and surface facilities shall be undertaken to enable realtime visualization & performance analysis and overlay of alerts and insights.	Specialized tools and software are used for modelling of wells and performance analysis, we understand that CCC scope includes integration of data from such tools/application thru OPC UA or Rest API, store data in data platform and display on CCC Platform along with alarms and alerts. Whereas providing solution/software for Comprehensive modelling of wells, networks, and surface facilities are not under the current scope of tender RFP. Kindly confirm, if our understanding is correct.	The current scope does not include procurement, implementation, or development of specialized reservoir modelling, well modelling, production engineering modelling, hydraulic simulation, or integrated production optimization software unless specifically offered and identified by the bidder.
54	4.15	4. Scope of work | The platform shall support operator guidance during critical events, enabling control room staff to push actionable alerts to field personnel on Mobile App. This includes sending annotated images, predefined SOPs, and real-time voice or video communications to facilitate quick decision-making and on-ground coordination.	This function will be acheieved through re-direction to other chat/calling apps e.g., Whatsapp/Telegram/or similar apps. Kindly confirm, if our understanding is correct and bidder is free to choose chat/calling application.	The CCC Platform shall provide the capability for enabling operator guidance and communication with field personnel during operational and incident scenarios. This includes transmission of alerts, notifications, annotated images, SOPs, and support for voice and/or video communication as specified in the tender. Bidders may propose suitable communication platform provided the same meets the functional, security, audit, traceability, and compliance requirements of the tender.
55	III. Interactive Visualization (page 207)	6.3. Develop & Deploy Cloud based CCC Application and mobile app | Provides support for light/dark themes and auto-restore of sessions.	We recommend RBAC (Role Based Access Control) whereas User Personalization and auto restore of sessions in terms of Book marking is not recommended basis the past experiences of such complex projects, although support for theme/layout toggles and notifications shall be made available. Please confirm if above statement is acceptable. Please specify expectations around "auto-restore of sessions".	Tender Clause relates to User experience and productivity feature whereas RBAC is related to Security & authorization feature. Through auto-restoration, when a user logs back in, the CCC should be capable of restoring user dashboard layout, open widgets, asset views, KPI selections etc. reflecting the last visualization context.
56	VI. Event & Alarm Management: (page 208)	6.3. Develop & Deploy Cloud based CCC Application and mobile app | e) Delivers real-time notifications via multiple channels, including email, phone, and messaging platforms (e.g., WhatsApp).	Integration for messaging platform (e.g. WhatsAPP) requries specific approval, business account mapping and recurring charges. We understand that OIL will provide business account and requried access /API to inteface with such application. Reccuring charges will be in scope of OIL.	WhatsApp business account will be provisioned by OIL. Recurring cost to be factored by bidder.
57	VIII. Reporting & Collaboration: (page 208)	6.3. Develop & Deploy Cloud based CCC Application and mobile app | d) Allows initiation of cases or service requests (SRs) based on identified anomalies, performance deviations, or improvement opportunities.	We understand that anomaly detection and improvement opportunities are use cases for AI/ML platform which is part of future scope. Kindly confirm, if our understanding is correct.	Advanced AI/ML-based anomaly detection, predictive analytics, prescriptive analytics, forecasting models, and similar capabilities identified under Phase-2 are not mandatory deliverables under the current Phase-1 implementation scope. However, the requirement for initiation of cases, service requests (SRs), workflow actions, notifications, and actions based on identified operational events, KPI deviations,

				alarms, threshold breaches, data quality exceptions, and other business or operational conditions remains within the current Phase-1 scope.
58	XI. Functions in scope: (page 210)	6.3. Develop & Deploy Cloud based CCC Application and mobile app | KPIs: Approximately 350–400 across the above functions.	We understand that 350-400 KPI is total number of KPIs requried for all 11 function mentioned, and not for individual function each. Please confirm, if our understanding is correct.	OIL shall review & revert
59	User Personalization (page 212)	6.3. Develop & Deploy Cloud based CCC Application and mobile app | Support theme/layout toggles, notification preferences; provide secure user preference management with scalable storage of personalization settings in document-oriented repositories.	We recommend RBAC (Role Based Access Control) whereas User Personalization and auto restore of sessions in terms of Book marking is not recommended basis the past experiences of such complex projects, although support for theme/layout toggles and notifications shall be made available. Please confirm if above statement is acceptable.	No change, to be guided by Tender Clause.
60	Page 261	Part - 4 Section IV H) CCC Application | Addition	A separate commercial line item is requested for the Command & Control Centre (CCC) Application Software Subscription License. The CCC software should be treated as a Commercial Off-The-Shelf (COTS) product.	The bidder has to factor the same against BOQ Item Slno. Please refer to amended BoQ to be published
61	Page 108 &131	5.1.1. Indicative Control room BOQ, Clause A10 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components , Clause A10 | SITC of interactive table with 88" 4K Capacitive display in 32:9 aspect ratio, embedded interactive player supporting object recognition, RFID, Gestures sensors and commanding officer console made with Premium finish.	The specified 88" display with 32:9 aspect ratio, along with the integrated features, appears to be a non-standard/customized configuration and is not readily available as a standard product. We request you to kindly delete/modify the 88" 32:9 specific requirement to permit equivalent commercially available solutions such as 86" or 92". Alternatively, kindly provide details of at least three (3) approved makes/OEMs complying with the complete specification of 88" display to ensure fair and wider participation.	Pl refer to amended clause to be published

62	Page 108 ,135,141 & 159	5.1.1. Indicative Control room BOQ, Clause A13 5.2.1. Indicative Control room BOQ Clause B9 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components , Clause A13 II. Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components B9 | SITC of Video Conferencing, Audio systems, 5 Nos. 30X 4K PTZ Conference Cameras and wireless presentation device.	The specified VC solution appears to be a non-standard/customized configuration, where the required specifications may need to be achieved by integrating products from multiple non standardized OEMs. Since the tender requires MAF for VC System , obtaining a single MAF covering all components may not be technically/practically feasible. We request you to remove the requirement of a MAF for the VC system	With regards to VC System, MAF for the VC Codec will suffice. However, the bidder shall be fully responsible for end-to-end integration, interoperability, support, warranty, and maintenance of the complete VC solution irrespective of the number of OEMs involved.
63	Page 108 & 127	5.1.1. Indicative Control room BOQ, Clause A8 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components , Clause A8 | SITC of Executive Engagement Platform for Pop-Up Units and Custom Interactive application for CCC Dashboard Visualization, other applications, Media Visualization, and Non-linear Presentations to Support Full Resolution of LED Display with on-premises perpetual license.	The specified Executive Engagement Platform appears to be a highly specialized/custom solution. We request you to kindly provide details of at least three (3) approved makes/OEMs whose products/platforms comply with the complete requirement. Alternatively, kindly revise the specification on a functional/performance basis rather than specifying a customized platform, so that equivalent solutions from multiple qualified OEMs can participate.	OIL will review & revert
64	Page 33	3.2.1 - Documentary Evidence for Experience Criteria | Clause 3.2.1(a) & (b): Contract document/Work Order/Service Order showing detailed scope of work AND Job Completion Certificate (JCC) or Service Entry Sheet (SES) or Certificate of Payment (COP) on company letter head issued by the Client and supported by Client's certified Job Report.	We request OIL to consider a Work Order acceptable where it contains the work heading and a brief outline of the Scope of Work, while the detailed description of the work completed is captured in the Job Completion Certificate (JCC). This request is based on the fact that Work Orders ordinarily do not contain the detailed Scope of Work, which is instead provided through separate supporting documents.	Clarified. To be guided as per tender existing clause.
65	Page 33	3.2.1(v) - Experience Criteria | Work executed through 'sub-contracting' shall not be considered for evaluation.	OIL is requested to permit bidders to rely on relevant experience gained through sub-contracted works for evaluation, provided that such works were carried out for an eligible End Client and the End Client's name is clearly established through the corresponding Work Order and Job Completion Certificate (JCC). The scope of this tender encompasses several distinct areas, including hardware supply, IT and OT Data Lakes, visualization dashboards, software development and analytics. In industry practice, such diverse requirements are often delivered through separate contracts involving different domain-specific specialists rather than by a single contractor.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.

			Accordingly, bidders may have relevant experience obtained through specialist sub-contracting arrangements, and the evaluation criteria should provide sufficient flexibility to recognize such experience. Allowing sub-contractor experience would therefore enable consideration of relevant experience gained through such arrangements. In its present form, the clause may inadvertently restrict participation by specialised dashboard and software companies whose relevant experience has been developed through sub-contracted assignments.	
66	Page 42	4.0 FINANCIAL EVALUATION CRITERIA: | Annual Financial Turnover from Operations of the Bidder during any of the last three (03) completed financial/accounting years preceding the Original Bid Closing date must be at least INR 32,53,44,000.00. [Annual Financial Turnover of the bidder from operations shall mean- "Aggregate value of the realization of amount made from the sale, supply or distribution of goods or on account of services rendered, or both, by the company (bidder) during a financial year" as per the Companies Act, 2013 Section 2 (91).] Consortium Case: In case of bid from Consortium of Companies, any one of the consortium members shall have an annual financial turnover from operation of minimum INR 32,53,44,000.00 and other members of the consortium shall have an annual financial turnover from operation of minimum INR 16,26,72,000.00, during any of the preceding 03 (Three) financial/accounting years reckoned from the original bid closing date. Net worth of all the members must be Positive for the financial/accounting year preceding the original bid closing date.	We request OIL to reduce the annual turnover requirement for non-lead consortium members to INR 8.13 Cr, This tender cannot realistically be executed by a single firm. Section 3.2 of the BEC requires credentials across four projects covering four unrelated specialisations, which necessarily points to a tie-up between domain leaders bidding as a group. As drafted, the lead member is required to meet the full single-bidder turnover requirement, while each other member is required to meet 50% of the same. This gives rise to three concerns: 1. Disproportionate to the technical BEC: Category B is worth INR 2.9799 Cr, Category C INR 2.4988 Cr and Category D INR 37.5 lakh, against which a smaller member must demonstrate an annual turnover of INR 16.2672 Cr. For Category D, the financial requirement is 40 times the value of the technical credential it accompanies. 2. Penalises grouped bids: A three-firm group must collectively demonstrate twice the turnover required of one bidder (100% + 50% + 50%). Firms coming together specifically to provide OIL with best-in-class technology are therefore placed at a disadvantage compared with a lone bidder. 3. Departs from prevailing norms: Indian public procurement, including in upstream PSUs, ordinarily requires non-lead members to meet 20–25% of the single-bidder turnover figure. INR 8.13 Cr is exactly 25% of that threshold here. If left unchanged, the clause will screen out the specialist software and analytics firms best suited to this work—companies materially smaller in revenue than hardware integrators—and narrow the field for a technically demanding, strategically significant tender. Accordingly, we request OIL to: Reduce the annual turnover requirement for non-lead members to INR 8.13 Cr, in line with prevailing public procurement practice; and	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.

67	33	3.2.1 - Documentary Evidence for Experience Criteria | Clause 3.2.1(a) & (b): Contract document/Work Order/Service Order showing detailed scope of work AND Job Completion Certificate (JCC) or Service Entry Sheet (SES) or Certificate of Payment (COP) on company letter head issued by the Client and supported by Client's certified Job Report.	OIL is requested to accept a Work Order with only heading and brief description of Scope of Work. The description of the final work done will be mentioned in the Job Completion Certificate (JCC). This is requested because work order normally does not mention the detail Scope of Work (SOW); and SOW is referenced to other documents.	Clarified. To be guided as per tender existing clause.
68	33	3.2.1(v) - Experience Criteria | Work executed through 'sub-contracting' shall not be considered for evaluation.	OIL is requested to accept experience gained through sub-contracting towards the evaluation, provided the work was executed for an eligible end-client. And end-client name is supported by proper documentary evidence such as the Work Order mentions End Client name, Job Completion Certificate (JCC) mentions End Client name. The subject tender is unique in terms of its scope of work, as it required the successful contractor to execute the scope covering hardware, IT data lake, OT data lake, visualization dashboards, software development and analytics solutions. The standard practice in the Industry has been to execute such a scope through multiple contracts awarding the specific tasks to specialist companies. As this scope is unique covering all the components mentioned above which will be provided by multiple parties specializing in their respective domains, it warrants a unique treatment in terms of experience and delivery. Hence, OIL is kindly requested to allow the bidder to use the experience of the sub-contractor. This clause, in its current shape, may bar specialized dashboard software companies to bid for this work.	Oil will review and revert.
69	32	3.2(C) - Experience Criteria - Similar Work | The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimumvalue of INR 2,49,88,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals: Enterprise IT & Middleware Integration: The scope covers the design and deployment of IT middleware, enterprise integration platforms, APIs, or ESB (Enterprise Service Hub) solutions to enable	Since the four experience criteria under Clause 3.2(A)-(D) correspond to four distinct technology domains, OIL is requested to confirm that these criteria may be satisfied collectively by the consortium - i.e., different consortium members may individually satisfy different criteria - and, where a specialised sub-scope is proposed to be delivered by a disclosed OEM/sub-vendor, that the relevant experience of such OEM/sub-vendor be considered towards the corresponding criterion, supported by valid documentary evidence. This would align the qualification framework with the multi-disciplinary delivery model the scope itself necessitates.	OIL will review and revert on Experience criteria.

		seamless integration of enterprise and departmental IT systems—such as ERP, EAM, HSE, GIS, monitoring, and other business applications—along with the establishment of real-time and batch data pipelines for ingestion into centralized IT or business data lakes and analytics platforms.		
70	32	3.2(D) - Experience Criteria - Similar Work | The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 37,50,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals: Command & Control Applications, Dashboards & Decision Support: Delivered an application / dashboard for a Command & Control Centre / Centralised Visualisation Dashboard covering interactive dashboards, real-time analytics, configurable alerts/alarms and automated workflows.	Please allow the Work Order provider company's industry to be Analytics Software OEM if the end-client is in oil and gas. The work was for end client in oil and gas industry and the work meets the requirement of OIL. This terminology of end-client has been accepted by Indian government (Ministry) in recent empannelment tender.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
71	38 & 39	3.2.2(IV)(ii) & (xv) - Consortium / Notarization | Clause 3.2.2(IV)(ii): Consortium MoU among consortium members shall be duly executed and notarized. Clause 3.2.2(IV)(xv): MOU/Agreement should be legally valid, on non-judicial stamp paper and notarized; for overseas bidder/consortium partner, non-judicial stamp paper is not required but notarization is required.	OIL is requested to clarify whether any specific validity period / maximum permissible age is prescribed for the notarization of the MOU/Agreement and other notarized documents submitted along with the bid, with reference to the Original Bid Closing Date.	Clarified. Consortium MOU/Agreement needs to be tender specific as per NIT and hence it should be formed after publication of this tender.
72	40	3.3 Key Perosnnel | The bidder must deploy a Team comprising of minimum Six (06) nos. of experienced key personnel as per the table below for the completion of project till go-live within the Contract period. The Key Personnel should be stationed at the site to ensure on-time delivery of products. The bidder must provide the	OIL is requested to allow resume of individual contractors also to be submitted along with employees so that best people can be deployed for the project.	Shall be reviewed and confirmed by OIL.

		list of key personnel with the name, designation & minimum experience as described below in Annexure-A2. The distribution of the key personnel is mentioned below:		
73	42	4.0 FINANCIAL EVALUATION CRITERIA: | Annual Financial Turnover from Operations of the Bidder during any of the last three (03) completed financial/accounting years preceding the Original Bid Closing date must be at least INR 32,53,44,000.00. [Annual Financial Turnover of the bidder from operations shall mean- "Aggregate value of the realization of amount made from the sale, supply or distribution of goods or on account of services rendered, or both, by the company (bidder) during a financial year" as per the Companies Act, 2013 Section 2 (91).] Consortium Case: In case of bid from Consortium of Companies, any one of the consortium members shall have an annual financial turnover from operation of minimum INR 32,53,44,000.00 and other members of the consortium shall have an annual financial turnover from operation of minimum INR 16,26,72,000.00, during any of the preceding 03 (Three) financial/accounting years reckoned from the original bid closing date. Net worth of all the members must be Positive for the financial/accounting year preceding the original bid closing date.	OIL is requested to reduce the annual financial turnover criteria for other consortium members to INR 8.13 Crores (half the current amount) or allow MSME relaxation from financial BEC for other consortium members. The scope of work in this tender requires a partnership between multiple technology providers to collaborate and deliver an integrated solution to Oil India. This is reflected in Section 3.2 of the BEC, where, under the Technical Evaluation Criteria, OIL has asked for experience across four different projects, each requiring an entirely different expertise and specialization. It is therefore imperative that multiple companies, each leading in their respective domains, collaborate through a consortium to deliver the project as envisaged by OIL. Under the current structure, the lead consortium member is required to meet 100% of the single-bidder turnover criteria, while other consortium members are each required to meet 50% of it. This creates following three issues: 1. Disproportion versus the Technical BEC: The quantum of work in Category B (INR 2.9799 Cr), Category C (INR 2.4988 Cr) and Category D (INR 37.5 lakh) is disproportionate to the annual turnover asked of smaller consortium members under the Financial BEC (INR 16.2672 Cr). This creates an inconsistency between the technical experience required under the scope and the financial turnover required under the Financial BEC — for Category D alone, the Financial BEC requirement is 43 times the underlying technical experience value. 2. Disadvantage versus single bidders: Where three companies form a consortium to bring OIL the best available technology, the consortium as a whole must demonstrate 200% of the turnover required from a single bidder (100% from the lead, plus 50% each from two other members). This places consortium bidders (who come together specifically to give OIL access to leading, specialized technology providers) at a disadvantage relative to single bidders. 3.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.

			Inconsistency with standard practice: Under standard Indian government procurement norms, including in upstream oil and gas PSUs, other consortium members are typically required to meet only 20–25% of single-bidder turnover criteria. Our request to halve the current criteria to INR 8.13 Crores sits at exactly 25% of the single-bidder threshold, consistent with this benchmark. We request that OIL follow the same approach. Maintaining the current criteria will restrict participation by technology companies leading in specialized domains — typically much smaller in size and revenue than hardware-solution providers — and will limit competition in a strategic and highly complex tender. We therefore kindly request that OIL: (a) reduce the annual financial turnover criteria for other consortium members to INR 8.13 Crores (half the current amount), consistent with standard Indian public procurement practice; and (b) separately consider waiving this criterion for the MSME member's own share where an MSME participates as part of a consortium, in line with Para 16 of the Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012	
74	76	24.0 SUBCONTRACTING/ASSIGNMENT - 24.1 | CONTRACTOR shall not subcontract, transfer or assign the contract, or any part under this contract, to any third party(ies). Except for the main services under this contract, CONTRACTOR may sub-contract the petty support services subject to COMPANY's prior written approval. However, CONTRACTOR shall be fully responsible for complete execution and performance of the services under the Contract.	The scope of this tender uniquely spans four distinct specialist domains - Command & Control applications and visualization, OT Data Lake and real-time data infrastructure, cloud-based IT middleware and Business Data Lake, and control-room AV/hardware with associated civil and electrical works - across four geographically dispersed sites, with corresponding experience criteria prescribed under Clause 3.2(A)-(D). Globally, engagements of this nature are delivered through a prime System Integrator supported by domain-specialist OEMs and sub-vendors, as no single entity ordinarily maintains in-house delivery capability across all these domains simultaneously. To ensure OIL receives best-in-class expertise in each domain and wider competitive participation, OIL is requested to expressly permit the bidder/consortium to engage specialist subcontractors and sub-vendors for discrete work packages (e.g., civil and electrical works, AV installation, cloud engineering, application development, site services), subject to (i) disclosure of such subcontractors to OIL, and (ii) the bidder/consortium lead remaining solely, fully, and unconditionally responsible to OIL for the entire scope,	OIL will review and revert.

			performance, and warranties under the contract. Kindly confirm.	
75	51	B7 B7.4 Software Compatibility Layer | Visualize 3D models and GIS datasets from applications such as Petrel, ArcGIS, etc	With reference to the said clause, kindly clarify the following: Are APIs are available from OIL existing GIS platform. Please confirm	OIL will review & revert
76	75	Clause No. 6.1 OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration Bullet point 13 | Integration of the solution with the OT, IoT & CCC Application shall be executed by the bidder.	please confirm whether the data flow is unidirectional or bidirectional for each integration.	Data flow will be unidirectional upwards from OT. IT Data Lake to CCC Application
77	76	Clause No. 6.1 OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration Bullet point 25 | OT Data Lake shall retain all historical operational data for a minimum period of 10 years, with secure archival, retrieval, and compliance-aligned storage mechanisms.	Is 10 years of historical data need to fetch? or a storage capability of recent data is required for 10 years? Also, as the proposed solution is based on high-frequency time-series data acquisition, the overall data volume will grow continuously over the years. While the system can retain existing data for 10 years, the effective retention period for newly generated data will gradually depend on available storage. As per our understanding A rolling 10-year data retention policy is required (i.e., at any point in time, the latest 10 years of operational data must be available). Please confirm our understanding is correct.	Yes
78	79	Clause No. 6.1 b) Key techno-functional requirements Bullet point 9 | IoT Sensor Integration & Remote asset monitoring for isolated installations, pipelines, and well pads.	Please provide a complete list of IoT sensors and remote assets along with their available communication protocols. Will OIL arrange all IoT data at a single point for RTCMS interface integration?	Pl refer to amended OT architecture to be published

79	80	Clause No. 6.1 b) Sub point-Interfacing with operational data sources. Bullet point 6 | The interface application shall support redundancy and failover mechanism. It shall also be capable of handling redundant data sources.	Could you provide details of existing redundant data sources at OIL along with available protocols?	Please refer to amended clause to be published
80	83	Clause No. 6.1 b) Sub point-Asset Data Contextualization Bullet point 18 | Notification to other system shall be in the form of webservices (SOAP and REST). Using this it shall be possible to trigger automatic workorders or workflows in the external system	RTCMS System is capable of Integrating with Third Party system via Web API. Real time data/ Notification related data will be shared. Further scope related to trigger automatic workorders or workflows in the external system will be in Third Party System Authority/ Client. Please confirm (bidder provides the webservice notification; workflow execution sits with the external system owner)	To be guided by tender terms and solution design
81	86	Clause No 6.2. IT Middleware & Business Data Lake setup, IT System Integration Bullet Point 4 | Bidder shall design the integration architecture for IT systems, submit it to OIL for review, and obtain approval prior to implementation.	Please confirm the review timeline by OIL after a detailed integration blueprint is submitted before implementation.	Please be guided by 9.2 Phase-1(Current Scope) Implementation Guideline
82	86	Clause No 6.2. IT Middleware & Business Data Lake setup, IT System Integration Bullet Point 5-10 | • Bidder shall implement secure, reliable data pipelines and APIs, ensuring compliance with OIL's cybersecurity, access control, and data governance policies. • Any required connectors, adaptors, or integration modules for SAP-HANA shall be procured, licensed, and provisioned by the bidder as part of the solution. • Business Data Lake shall store structured and unstructured data, provide analytics-ready datasets, and enable secure data sharing with the CCC platform and authorized third-party applications. • Bidder shall implement data contextualization, aggregation, and standardization as per business & functional	With reference to the said clause, kindly provide the following details:- Is SAP BW or BW/4HANA used as an intermediate layer? Which SAP modules are in scope (PP, PM, MM, FICO, etc.)? what is the total DB size which needs to intergate with IT Datalake?	OIL shall provide the Cloud Infra for IT Middleware & Business Data Lake. OIL will revert on SAP integration

		requirements. • Storage periods, retention policies, and data lifecycle management shall be defined during the detailed blueprint design, and the Bidder shall present the proposed approach in proposal. • The proposed platform is designed to be scalable, supporting future system integrations and accommodating growing data volumes.		
83	87	b) Key techno-functional requirements I. Integration Bullet Point 2 | Support IoT protocols and file-based uploads (Excel, CSV, WITSML).	Please confirm and provide the estimated number of device endpoints and concurrent connections expected at peak load.	The solution should support the functionality; however, IoT based integration is not required during Phase-I.
84	88	IV. Security & Compliance Bullet Point-1 | Meet data privacy and cybersecurity regulations (incl. MEITY).	Can ISO 27001 certification be submitted for MEITY compliance? Kindly confirm.	The Clause does not require formal certification to be submitted against this clause. However, the architecture, controls and implementation approach shall be aligned with the applicable provisions of the relevant cybersecurity including that of MeiTY
85	93	X. Field Mobile App | Field Mobile App	Application should support either Android or iOS, or both. Kindly confirm.	Both
86	91	I. Real-Time & Periodic Data Ingestion Bullet Point-1 | The system shall ingest data in real-time and on a scheduled/periodic basis from the OT Data Lake, IT middleware, and Data Lake sources.	Expected latency threshold for real-time ingestion and dashboard reflection (e.g., <5 seconds, <10 seconds)	The proposed solution should support end-to-end near real-time update of operational dashboards, typically within a few seconds under normal operating conditions

87	91	III. Interactive Visualization Bullet Point-12 | Facilitates digital walkthroughs for remote monitoring, collaboration, and incident response.	Kindly clarify whether the "digital walkthrough" feature is expected to be implemented using a game engine (e.g., Unreal/Unity-type immersive environment) or as a browser-based interactive 3D dashboard experience.	Bidders may implement this capability through browser-based interactive 3D visualization, Digital Twin integrations, game-engine-based environments, embedded visualization platforms, or equivalent technologies, provided the functional objectives of digital walkthrough, collaboration, situational awareness, and remote operational visibility are achieved.
88	97	b) Detailed Technical Requirements Table point 19 | Provide a no-code configuration interface with guided wizards, drag-drop entity design, and template libraries; support workflow orchestration, dynamic schema management, and scalable system design; store configurations and templates in a storage.	Scope of of "no-code" configuration is requested. Please provide.	No code covers asset templates/hierarchies, KPI formulae, thresholds & alerts, workflows/ escalations, dashboards/reports, and data mappings; all to be done via drag and drop UI with audit trails, subject to further assessment during testing phase
89	93	X. Field Mobile App Bullet point-6 | Supports offline capability to securely store data such as logs, inspection forms, and incident reports, with automatic upload upon network reconnection.	Kindly specify the maximum offline data storage requirement per device and define the expected synchronization rules, including conflict resolution mechanisms when multiple users update the same record offline.	The proposed solution shall provide reliable synchronization mechanisms, including handling of interrupted transmissions, duplicate records, version management, and data integrity during synchronization. Offline storage capacity etc can be finalised during the design storage.
90	93	X. Field Mobile App | Mobile Device Management (MDM)	Please confirm whether an existing MDM solution (e.g., Microsoft Intune or equivalent) is already deployed within OIL?	OIL does not presently provide an existing MDM platform for this scope. The bidder shall provide a secure standalone mobile application and all required application-side security, distribution, configuration and support, subject to OIL cybersecurity approval.
91	95	b) Detailed Technical Requirements Time-Series Replay & Historical Data Access Table point -9 | The CCC Platform should provide interactive timeline navigation, charts, and video clip playback. enable export of time-slice data; support access to historical OT and IT datasets via data lakes; implement hot/warm/cold lifecycle management & retention policies; store time-series, video, and	Please mention historical data depth required to be available in "hot storage" for real-time replay (e.g., 3 months, 6 months, 1 year).	Storage for OT & Business Data Lake, CCC Application shall be provided by OIL

		associated metadata in secure repositories.		
92	96	b) Detailed Technical Requirements User Collaboration Table point -15 | Provide embedded messaging, workflow & task management within dashboards and mobile apps; support real-time messaging with presence indicators and typing status; enable file/attachment sharing and archival; integrate with notification services; store messages, documents, and attachments in secure object/document repositories.	what is the expected average daily message volume, file attachment limits, and required message retention duration?	As per requirement & solution design;
93	201	Clause No. 6.2 IT Middleware & Business Data Lake setup | Any required connectors, adaptors, or integration modules for SAP-HANA shall be procured, licensed, and provisioned by the bidder as part of the solution.	Kindly clarify if native Azure integration capabilities (e.g. Azure Data Factory SAP Change Data Capture (CDC) / OData / Operational Data Provisioning) are acceptable or if third-party/SAP-native modules (e.g. SAP LT Replication Server - SLT) are required in bidder scope. Also, please confirm if SAP API/user licensing for data extraction is covered by OIL.	OIL will review & revert
94	202	Clause No. 6.2 (b) Key techno-functional requirements - Data Handling | OSDU-compliant for subsurface data in oil & gas.	Please clarify whether the Bidder is required to deploy and manage a full-fledged OSDU instance (e.g. Azure Data Manager for Energy - ADME) on Azure OR if the requirement is limited to ingesting, structuring, and mapping subsurface/E&P datasets to OSDU-compliant schema definitions in Azure Data Lake Storage (ADLS Gen2).	The solution should be capable to ingest OSDU-compliant data
95	202	Clause No. 6.2 (a) IT Middleware & Business Data Lake resources provision | Compute resources shall be provisioned such that CPU and RAM utilization do not exceed an average of 60%. Any sustained utilization beyond this threshold shall be deemed a resource shortfall , and	In a cloud-native serverless / auto-scaling environment compute resources scale dynamically. Kindly clarify how the 60% average utilization rule applies to elastic cloud components and define the evaluation period (e.g. peak hourly window vs. 24-hour rolling average) before forced capacity scaling is triggered.	Asper amendment, OIL shall provide the cloud infrastructure resources for the IT Middleware, Business Data Lake, and CCC Application platforms. The bidder shall be responsible for defining the sizing requirements, architecture, resource utilization projections such that the proposed system consistently meets the performance, availability and response-time requirements.

		the bidder shall provision additional capacity at no extra cost to OIL.		
96	202	Clause No. 6.2 IT Middleware & Business Data Lake setup | Backup of the solution shall be carried out in OIL's infrastructure managed with Commvault backup software.Bidder must facilitate all necessary technical assistance to OIL team to implement backup policy, restoration policy, of the Data Lake along with all associated activities.	Since the IT Data Lake will be hosted on Azure Cloud, please confirm if cloud-native backup and retention mechanisms (e.g. Azure Blob Versioning, Soft Delete, Immutable Storage, Azure Backup) integrated via Commvault Metallic/Cloud Agents are approved, avoiding data backhaul egress to on-premise infrastructure.	OIL will review & revert
97	201	Clause 6.2 (b) | Data types: Structured, semi-structured, unstructured, Documents, images, and limited video metadata; Drone Surveillance & CCTV Analytics integration.	Please clarify if raw high-definition video feeds from Drone Surveillance and CCTV Analytics are to be streamed/stored directly in Azure Blob Storage OR if video processing occurs edge/on-prem with only extracted AI metadata and incident clips ingested into the Cloud IT Data Lake.	Video processing occurs edge/on-prem with only extracted AI metadata and incident clips ingested into the Cloud IT Data Lake
98	201	Clause No. 6.2 IT Middleware & Business Data Lake setup | Data buffering shall be available to cater to conditions of interrupted connectivity between CCC and the IT data lake; the system shall maintain data synchronization using a fallback refresh frequency of 1 hour until normal connectivity and real-time ingestion resume	Kindly confirm if cloud-native event streaming and queueing services (e.g. Azure Event Hubs / Azure Service Bus) with configurable retention days are accepted as the standard cloud-side buffering mechanism for incoming IT and OT batch/stream pipelines.	The buffering mechanism shall ensure that no business-critical data is lost during connectivity disruptions and that synchronization is automatically resumed upon restoration of normal connectivity. The bidder may choose appropriate technology to achieve this including Azure Event Hubs, Azure Service Bus as acceptable solution.
99	201	Clause No. 6.2 (a) IT Middleware & Business Data Lake resources provision | The bidder is responsible for extraction, transformation, data quality checks, metadata mapping, contextualization, and ingestion into the target data lakes	Are complete Data Dictionaries, Entity-Relationship Diagrams (ERDs) and schema definitions available for the 11 target source systems (e.g. SAP S/4HANA, E&P Databank, Logistics)?	OIL will review & revert

100	201	Clause No. 6.2 (a) IT Middleware & Business Data Lake resources provision | The bidder is responsible for extraction, transformation, data quality checks, metadata mapping, contextualization, and ingestion into the target data lakes	Can we get the existing API documentation, Swagger/OpenAPI specs, or WSDL files for the enterprise applications expected to expose endpoints? Can sample WITSML file packages and data schemas from the drilling and well systems be shared for payload structure analysis?	OIL will review & revert
101	201	Clause No. 6.2 (a) IT Middleware & Business Data Lake resources provision | Enable near real-time and batch data ingestion	The SOW specifies 'near real-time data ingestion' for time-critical operational KPIs. What is the exact target latency SLA between data creation at the source system and its availability in the Silver/Gold layer ?	The proposed solution should support end-to-end near real-time update of operational dashboards, typically within a few seconds under normal operating conditions
102	201	Clause No. 6.2 (a) IT Middleware & Business Data Lake resources provision | Bidder shall implement secure, reliable data pipelines and APIs, ensuring compliance with OIL's cybersecurity, access control, and data governance policies.	Is there an existing enterprise Data Quality/Governance tool in use (e.g. Collibra, Great Expectations, Microsoft Purview, Monte Carlo) OR should the partner propose and build a custom DQ monitoring framework?	Bidder has to provision the needful tool & factor the same in price bid, if required
103	201	Clause No. 6.2 (a) IT Middleware & Business Data Lake resources provision | The bidder shall migrate a minimum of two (2) years of historical data	What is the total baseline size of the existing 2-year historical data across all systems?	Please refer to amended clause for cloud resource to be published
104	201	Clause No. 6.2 (a) IT Middleware & Business Data Lake resources provision | The objective is to establish an integrated IT middleware and business data lake platform that unifies enterprise systems, enables real-time data exchange, enhances cross-functional KPI visibility, and provides a secure, scalable foundation for future advanced analytics.	How will downstream applications consume data—via Direct SQL access to Gold tables, REST APIs served by API Management, or Power BI semantic models?	The IT Middleware & Business Data Lake architecture shall support secure, scalable, and governed data consumption by various enterprise applications, dashboards, analytics platforms, reporting systems, CCC applications, mobile applications, and future digital initiatives. Depending on the use case and security requirements, downstream applications may consume data through appropriately governed mechanisms such as APIs, data services, semantic models, curated data layers, data virtualization frameworks, analytical interfaces, or equivalent industry-standard approaches proposed by the bidder.

				The bidder's solution shall be an appropriate enterprise architecture that supports secure access, role-based authorization, auditability, scalability, performance, and future extensibility while avoiding unnecessary duplication of data.
105	201	Clause No. 6.2 (a) IT Middleware & Business Data Lake resources provision | The bidder shall migrate a minimum of two (2) years of historical data (wherever available) from all integrated OT and IT systems into the respective IT Data Lake.	Is there any integration required between OT DataLake & IT Datalake ? If yes, what is the exact integration pattern and boundary data contract between the IT Data Lake and the separate OT Data Lake workstream?	The OT Data Lake shall remain the primary repository for OT time-series and operational data, while the IT Middleware & Business Data Lake shall remain the primary repository for enterprise and business data. Only the required operational datasets, aggregates, events, KPIs, metadata, contextualized information, and other approved information shall be exchanged between the two environments based on business requirements and security policies.Bidder's solution architecture to facilitate such exchange/ integration between OT & IT Data Lake
106	201	Clause No. 6.2 (a) IT Middleware & Business Data Lake resources provision | III. Scalability & Availability • Cloud-native or hybrid, scalable for future expansion. • High availability and disaster recovery ready.	What are the strict Recovery Point Objective (RPO) and Recovery Time Objective (RTO) requirements for the Business Data Lake? What specific enterprise backup tool/solution is currently deployed in the Azure Landing Zone (e.g. Azure Backup) that we must integrate with for snapshotting Delta tables and storage containers?	OIL will review & revert
107	201	Clause No. 6.2 (a) IT Middleware & Business Data Lake resources provision | Application-side API enablement and source system configurations at the Client's existing enterprise systems shall be facilitated by the Client. The partner shall provide all required specifications, interface documentation, and technical support to enable this.	For source systems lacking native API capabilities, will OIL bear full cost and responsibility for upgrading those applications or engaging third-party OEMs (e.g., SAP, Oracle, AWS) to expose endpoints?	OIL will review & revert
108	201	Clause No. 6.2 (a) IT Middleware & Business Data Lake resources provision | All upgrades and patches shall be tested in a staging environment before production deployment.	Will OIL provision three distinct Azure environments (Dev, Staging/UAT, Prod), and does the Staging environment need to match 100% of Production capacity or can it be scaled down?	To refer to amended clause to be published for cloud infra

109	201	Clause No. 6.2 (a) IT Middleware & Business Data Lake resources provision | A key management system with regular key rotation shall be implemented and managed by the partner	Does OIL's Cloud Governance Framework mandate Customer-Managed Keys (CMK) via Azure Key Vault for all data at rest?	Bidders may propose appropriate key management solutions, including cloud-native key management services, Customer-Managed Keys (CMK), provider-managed keys, HSM-backed solutions, Azure Key Vault, or equivalent technologies, as applicable to the proposed architecture and security design.
110	201	Clause No. 6.2 (a) IT Middleware & Business Data Lake resources provision | The Client has an established secure cloud landing zone for ERP and other cloud applications. All middleware and data lake traffic shall be routed through this landing zone. Provision and management of the cloud landing zone infrastructure (Azure) and associated governance frameworks	What is the exact boundary of technical responsibility for OIL's cloud landing zone team (ExpressRoute, VNets, Azure Policies, IAM) versus resources configured by the vendor within delegated Resource Groups?	To refer to amended clause to be published for cloud infra
111	201	Clause No. 6.2 (a) IT Middleware & Business Data Lake resources provision | The partner shall provision all cloud infrastructure required for the middleware and data lake platform. Platform and infrastructure shall be licensed on a subscription basis in compliance with the Client's cloud service terms specified in the Design Criteria Document. All licenses shall be mapped to the Client's Tenant ID, to be provided upon issuance of the Letter of Acceptance	Can OIL confirm our understanding that while OIL holds ultimate ownership of all Azure cloud tenants, subscriptions, and software licenses, the vendor is responsible for designing, provisioning, managing, and directly paying all Azure cloud consumption and billing costs?	Pl refer to amended clause for cloud infra
112	204	Section 6.3 (d) | CCC Platform should be able to connect to operational technologies with bi-directional control via native protocols like OPC UA/DA, BACnet IP, MODBUS TCP, Telemetry protocols etc...	Please clarify if "bi-directional control" in Phase-1 is strictly limited to read-only ingestion into the cloud-hosted platform, with "control" operations restricted to sending alerts or actions to operators. If actual write-back control to OT systems is required, please provide the specific safety interlocks, firewalls, and protocol handshakes expected to preserve SIL and cybersecurity compliance.	It is clarified that "bi-directional control" is strictly limited to read-only ingestion into the cloud-hosted platform, with "control" operations restricted to sending alerts or actions to operators.

113	205	6.3 (m) | The solution shall provide a consolidated, enterprise-wide dashboard integrating data from exploration, drilling, production, transportation, and safety functions. It shall offer real-time operational status indicators (e.g., “Active Drilling”, “Shut-in Wells”) and seamlessly combine IT, OT, and IoT data to enable holistic monitoring, analytics, and data-driven decision-making.	Please clarify on the size of the data and high level expectation for dashboard design	Pl refer to amended clause for cloud infra;The dashboard design shall capture the following:a) The Corporate CCC shall function as OIL's Enterprise Digital Nerve Centre, providing a unified strategic view of Production, Finance, HR, Materials, Projects, HSE, Cybersecurity, Supply Chain and Business Performance across all assets and business units. It shall enable executive leadership, Board, and corporate functions to monitor enterprise KPIs, assess risks, govern operations, track strategic initiatives, and make informed decisions. b) The Operational CCCs at FHQ, RF and PHQ shall function as real-time operational command centres providing integrated visibility of production facilities, wells, pipelines, process plants, utilities, logistics, HSE events, asset health, and field activities. These centres shall facilitate operational decision-making, incident management, collaboration, and execution excellence through near real-time situational awareness and coordinated response capabilities
114	207	6.3.a IV | Provide an interactive GIS-based map for real-time visualization of all assets... map shall support multi-layer visualization" and "GIS-based map and multi-layer visualization where applicable	Please confirm if OIL will provide the necessary base maps, satellite feeds, and asset-specific spatial data (shapefiles, KML, and coordinates) to prepare GIS maps . Additionally, clarify if the bidder must include enterprise GIS server licenses (such as ArcGIS) in the proposal, or if OIL will provide access to an existing enterprise GIS server	The tender does not mandate any specific GIS platform. Bidders may propose proprietary or open-source GIS technologies, provided the solution fully meets the functional, performance, scalability, interoperability, and visualization requirements specified in the tender. The proposed GIS component shall support industry-standard geospatial data formats and services and shall be capable of integrating with the overall CCC platform. The bidder shall provide all software, subscriptions, licenses, usage rights, support arrangements, and associated components necessary for deployment, operation, maintenance, administration, and integration of the GIS functionality during the contract period. No additional software procurement by OIL shall be required for achieving the specified GIS functionalities.
115	208	6.3.aVI | Delivers real-time notifications via multiple channels, including email, phone, and messaging platforms (e.g., WhatsApp)	Please clarify if OIL will provide its own SMTP servers, SMS gateways, and Meta WhatsApp Business API accounts . If the bidder is responsible for procuring these gateways, please clarify if transactional and consumption-based API costs should be bundled in our bid, or if they will be reimbursed on actual usage.	SMTP Service, WhatsApp business account will be provisioned by OIL. Recurring cost to be factored by bidder.

116	208	6.3.a V | f) Facilitates root cause analysis by linking anomalies to underlying operational data. g) Provides automated correlation of operational events across distributed upstream assets (wells, pipelines, compressors) to identify patterns and potential risk areas.	Please ellaborate details required and expectations in both (f) & (g) requirement	OIL will review and revert.
117	208	6.3.a VIII Reporting & Collaboration | Provides automated task creation with configurable workflow automation and assignment.	Please ellaborate expectation of task creation	The CCC shall support configurable task creation, assignment, workflow, escalation, status tracking and closure. Detailed triggers, roles and workflows shall be finalized during Blueprinting.
118	210	6.3.a XI | KPIs: Approximately 350–400 across the above functions. (Note: A single KPI represents a specific metric, such as Production. Variations of this KPI across different assets—e.g., Wells, OCS, Tank farm—or different time periods—e.g., daily, shift-wise—are considered as instances of the same KPI, not separate KPIs.)	We request that OIL provide the preliminary list of the 350–400 KPIs with their primary data sources to ensure proper bid sizing. Additionally, please confirm if custom data science or multi-variable predictive modeling is out of scope for any Phase-1 KPIs, or if they are strictly descriptive/algebraic calculations	OIL will review and revert.
119	205 & 210	Section 6.3 (s) & Section 6.3 "Unified Value Chain View" | Bidder shall ensure multi-layout, multi-location display support, adaptable to various screen configurations and aspect ratios across all CCC locations.	Please confirm if the CCC Application must natively support the non-standard, custom aspect ratios of the curved video walls (such as Delhi's 16.8m x 2.7m active screen and 32:9 operator monitors) without visual distortion or scaling artifacts, and if a responsive UI grid framework (capable of auto-adjusting based on screen resolution breakpoints) is acceptable.	OIL will review and revert.
120	208 & 213	Section 6.3 "Reporting and Data Export" & Section 6.3 (a)(VI) "Event & Alarm Management" | Delivers real-time notifications via multiple channels, including email, phone, and messaging platforms (e.g., WhatsApp).	Please confirm if OIL will provide its own SMTP mail servers, SMS gateways, and official Meta WhatsApp Business API accounts for notification delivery. If the bidder must provision these, please clarify how the transaction fees (per SMS / per WhatsApp template message) should be structured in the commercial proposal over the 5-year AMC period.	SMTP Service, WhatsApp business account will be provisioned by OIL. Recurring cost to be factored by bidder.

121	209 & 213-214	Section 6.3 "Field Responder Mobile Apps" & Section 6.3 (a)(X) "Field Mobile App" | Mobile app should provide field notifications, real-time alerts... support field data entry & ticket generation via forms... store mobile data securely...	Please confirm if the Field Mobile App needs to be wrapped for a specific MDM system used by OIL (e.g., Microsoft Intune). Additionally, please clarify if the Apple and Google enterprise developer accounts required for app distribution will be provided by OIL or must be provisioned by the bidder.	Bidder may choose to provide any MDM system that meets the requirements of the tender. Bidder has to factor the same. Also, it is clarified that OIL shall not provide any Apple or Google Enterprise Developer Accounts.
122	209 & 215	Section 6.3 User Profiles & Section 6.3 "Field Mobile App" | CCC Operators (24x7 shifts): 15 users, Supervisors: 10, Executives: 25, Admin: 5" (Total: 55) vs "minimum of 75 concurrent users" on the mobile app	Please clarify the total active user base and the maximum expected concurrent user connections (both web and mobile combined) to help us correctly size the cloud compute resources and prevent application bottleneck penalties during Site Acceptance Testing.	The bidder shall include all licences required for the tendered user base, 55 CCC/Web users and 75 concurrent mobile users, unless a specific clause states otherwise.
123	212	Section 6.3 "Configurable Workflows" | The platform should have process designer - Intuitive visual tool that offers an integrated workflow process design and deployment tool...	Please confirm if the bidder is permitted to utilize industry-standard, commercial or open-source BPMN 2.0 workflow orchestrators (e.g., Camunda, Flowable) within the cloud environment. If yes, will OIL accept the hosting of these standard engines, or must the bidder build a custom workflow engine from scratch?	Pl refer to amendments to be published for cloud infra
124	214	Section 6.3 (c) & (d) "Embedded Digital Twin viewer" | The CCC platform shall provide an embedded Digital Twin viewer within the CCC UI to access and visualize the Digital Twin models... enable simple navigation between 3D Models, engineering data, and documents...	Please confirm if OIL will provide fully completed, standard-compliant 3D models (such as CAD, BIM, or IFC files) for all surface facilities, pipelines, and wells. If the bidder is expected to generate these models, please specify the exact locations, formats, and physical scanning/engineering data that will be provided by OIL at project start.	The CCC Platform shall provide the capability to access, visualize and navigate Digital Twin information through an embedded user experience within the CCC environment as specified in the tender through an appropriate integration approaches. The bidder shall factor all licenses, software components, interfaces, connectors, viewers, and associated capabilities required to meet the Digital Twin-related functionality specified under the current Phase-1 scope of the tender. The proposed solution shall additionally be scalable and capable of accommodating future expansion of Digital Twin functionality, models, assets, users, and licenses without major architectural changes.

125	108 & 124 vs 221	Section 5.1.2 (A11), Section 5.1.2 (A6.29) vs Section 9.1 (b) | SITC of Holographic Box with... integration with Generative AI with LLM" and "AI-Based Interaction Assistant leveraging Large Language Models (LLMs)" vs Phase-2: "Conversational AI Assistant with NLP	We note a discrepancy where Generative AI with LLM is listed under Phase-1 BOQ items but deferred as a general platform feature to Phase-2. Please confirm if LLM and Generative AI conversational features are strictly excluded from the Phase-1 Go-Live scope. If required in Phase-1, will OIL provide the foundational pre-trained LLM and required computing cluster, or must the bidder supply and host these?	AI/ML-driven predictive and prescriptive analytics, what-if modelling and Conversational AI/NLP identified under Phase-2 are not required to be implemented or commissioned under the present Phase-1 scope. The Phase-1 solution shall be architected to support future integration and expansion of these capabilities.
126	214	6.3 (b), (c) & (d) - Enablement for Design Digital Twin functional requirements | Enablement for Design Digital Twin functional requirements:	Please confirm Oil will provide relevant API & Connectors to connect with digital twin application. Please confirm if OIL will provide fully completed, standard-compliant 3D models (such as CAD, BIM, or IFC files) for all surface facilities, pipelines, and wells	The CCC Platform shall provide the capability to access, visualize and navigate Digital Twin information through an embedded user experience within the CCC environment as specified in the tender through an appropriate integration approaches. The bidder shall factor all licenses, software components, interfaces, connectors, viewers, and associated capabilities required to meet the Digital Twin-related functionality specified under the current Phase-1 scope of the tender. The proposed solution shall additionally be scalable and capable of accommodating future expansion of Digital Twin functionality, models, assets, users, and licenses without major architectural changes.
127	226	Section 12 (II) | Manpower needs to be deployed by the bidder for the day-to-day operations of CCC at CO Delhi and FHQ, Duliajan during general shift.	Please clarify if the bidder is required to provide manpower for 24x7 shift operations or if the bidder's on-site resource commitment is strictly limited to general business hours, with 24x7 shift operations being managed directly by OIL's own personnel.	Delhi: day shift; Duliajan: 24x7. Manpower is not required at RF Jodhpur and PHQ Guwahati.
128		3.1	We request Oil to kindly direct the bidder to submit the Manufacturer's Authorization Form (MAF) for VMware Cloud Foundation, as this is an integral component of the proposed solution. VMware Cloud Foundation (VCF) will be installed and deployed directly by the OEM and providing the necessary training.	Please refer to amendment for relevant clause.

129		3.2 (D)	The tender presently requires bidders to demonstrate separate experience under Criteria A, B, C and D. We request that these requirements be permitted to be met through one successfully completed integrated Command & Control Centre / Integrated Command Centre / War Room contract. An integrated Command & Control Centre project inherently requires coordination and integration across civil/interior infrastructure, AV/VC and control-room systems, OT data acquisition, IT/middleware integration, dashboards and decision-support applications. Therefore, successful completion of all such components under a single integrated contract demonstrates the bidder's end-to-end capability and is directly relevant to the scope of the present tender.Request for Amendment: We request that the experience criteria be amended to permit one single completed contract, executed in Oil & Gas / Petrochemicals / Power / Utilities / Metals, with an aggregate executed value of at least INR 48,25,09,000, incorporating the scope requirements of Criteria A, B, C and D. The individual components may form part of different work packages or activities under the same contract, subject to documentary evidence establishing the scope. Furthermore, we request updation of point C of BEC to make it in line with scope of the tender:c). Enterprise IT & Middleware Integration: The scope covers the design and deployment of IT middleware, enterprise integration platforms, APIs, or ESB (Enterprise Service Hub) solutions to enable seamless integration of enterprise and departmental IT systems—such as ERP/EAM/ HSE/ GIS monitoring, and/or other business applications—along with the establishment of real-time and/or batch data pipelines for ingestion into centralized IT or business data lakes, analytics platforms.	OIL will review and revert on Experience criteria.
130		3.2.2 (II)	(iii) Provided that with a view to ensure commitment and involvement of the ultimate parent/holding company sister-subsidiary / co-subsidiary for successful execution of the contract, the participating bidder must submit an agreement, as per format furnished, between them bidder, sister-subsidiary / co-subsidiary and their ultimate parent/holding company, along with the technical bid.	OIL will review & revert

131		Notes to Para 3.2.2(I) & 3.2.2(II) above	(d) A certificate from the Statutory Auditor / practicing chartered accountant of the bidding company to establish the relationship and equity percentage holding between bidding company and the supporting company. The certificate should be duly concurred/endorsed by the Company Secretary or one of the Directors of the company concerned. The above certificate should not be more than 30 days old as on the original bid closing date. Request for addition of practicing chartered accountant for certificate	OIL will review & revert
132		Notes to Para 3.2.2(I), 3.2.2(II) & 3.2.2(III) above:	In case the contract is awarded based on the bid submitted as per Clause no. 3.2.2 (I)/(II)/(III) above, in order to meet the commitment from the supporting firm based on whose technical experience the bidder has been qualified, the identified key personnel as mentioned in "Annexure-A2 IDENTIFIED KEY PERSONNEL" shall be from the supporting company/JV Partner during the entire implementation period of the project for successful execution. Declarations in this regard from the bidder as well as the Supporting Company are required to be submitted by the bidder along with the un-priced techno-commercial bid. We request deletion of the requirement of personnel from the supporting company. Experience of borrowing entity would be enough to cover the scope. Would request removal of explicit requirement of personnel from borrowing entity	OIL will review & revert
133		3.2.5	Bidders to note that "If any bidder (individual/Parent/Subsidiary/Sister Subsidiary/Co-Subsidiary/ Joint Venture/Consortium) provides documents of jobs/contracts executed outside India against BEC clause no. 3.2 above, then OIL reserves the right to ask the bidder to get the aforesaid documents endorsed by Indian Embassy of the country where the job/contract was executed and it will be binding on the bidder to provide the same to OIL within stipulated time period. We request for deletion of this clause. This is not a standard practice in tenders. Please note that we will be submitting agreement between bidder, supporting company and ultimate parent/holding company. Additionally all documents will be verified by TPI as per BEC requirement. Hence there is no additional need for endorsement from the Indian Embassy of the country where the job was executed.	Clarified. To be guided as per tender document.

134		Note to Clause No. 3.3: (e)	(e) The list of key personnel to be proposed & their biodata needs to be submitted as per Annexure-A2 along with the Technical Bid. The relevant certificate against the educational qualification of team members must be submitted along with the Techno-Commercial Bid. The Biodata and experience certificates must be certified & authenticated by the Director/CEO/CFO of the bidder In case there is NO designated position of CEO for bidding entity. We would request addition of Director instead of CEO/CFO.	OIL will review & revert
135		10.4 (c)	On issuance of the Inspection Certificate to the bidder, TPI agency should share a copy of the same to the concerned Purchase officer through e-mail directly (Email ID: parag_barman@oilindia.in). OIL will reserve the right to ask the inspection agencies to verify the documents with source, if required at no extra cost to OIL. Verification/Certification of documents by OIL's empanelled third-party inspection agencies shall not automatically make the bidder techno-commercially-acceptable or eligible for award of contract. The TPI certificate will be submitted by the bidder to OIL along with its bid. Request OIL to clarify that no certificate has to be shared by TPI agency directly with OIL.	OIL will review & revert
136		15.1 & 15.2	15.1 Except as otherwise expressly provided herein, neither COMPANY nor its servants, agents, nominees, CONTRACTORs, or sub- CONTRACTORs shall have any liability or responsibility whatsoever to whomsoever for loss of or damage to the equipment and/or loss of or damage to the property of the CONTRACTOR and/or their CONTRACTORs or sub-CONTRACTORs, irrespective of how such loss or damage is caused and even if caused by the negligence of COMPANY and/or its servants, agent, nominees, assignees, CONTRACTORs and sub-CONTRACTORs. The CONTRACTOR shall protect, defend, indemnify and hold harmless COMPANY from and against such loss or damage and any suit, claim or expense resulting there from 15.2 The CONTRACTOR shall protect, defend, indemnify and hold harmless COMPANY from and against such loss or damage and any suit, claim or expense resulting there from. Neither COMPANY nor its	OIL will review & revert

			servants, agents, nominees, assignees, CONTRACTORs, sub-CONTRACTORs shall have any liability or responsibility whatsoever for injury to, illness, or death of any employee of the CONTRACTOR and/or of its CONTRACTORs or sub-CONTRACTOR irrespective of how such injury, illness or death is caused and even if caused by the negligence of COMPANY and/or its servants, agents nominees, assignees, CONTRACTORs and sub-CONTRACTORs. CONTRACTOR shall protect, defend, indemnify and hold harmless COMPANY from and against such liabilities and any suit, claim or expense resulting there from Typo in placement of the sentence.	
137		27.0	INVOICES: Mobilization charges will be invoiced only upon completion of mobilization as certified by COMPANY representative and CONTRACTOR is ready at site for starting the services/ operation. Payment of mobilization charges shall be made within 45 30 days following the date of receipt of undisputed invoices by COMPANY.	Payment of mobilization charges shall be governed by the applicable GCC/SCC and certified milestone/payment provisions stated in the tender.
138		Current state pp.101-102; OT/IT scope pp.201-204	Please provide a frozen Phase-1 source-system inventory showing each OT/IT system instance, location, OEM/product/version, protocol/API type, number of endpoints/interfaces, read-only versus read/write requirement, tag/parameter count and target refresh frequency.	OIL will review and revert.
139		Sec. 4.10, p.103; Digital Twin enablement, p.214	Clause 4.10 requires “comprehensive modelling of wells, networks, and surface facilities.” Please clarify whether this means asset hierarchy/contextualization and visualization only, or creation/calibration of engineering models (well models, network models, process simulation or Digital Twin models). If engineering models are required, please provide asset counts, model types, software platforms, input data and acceptance criteria.	Detailed asset modelling, contextualization requirements, and visualization hierarchy shall be finalized during the Blueprint and Detailed Design phases in consultation with OIL.

140		Sec. 4.13, p.103; Sec. 6.3(a), p.204; Sec. 9.1, p.221	Please confirm that Phase-1 integration is limited to the systems expressly identified for current implementation and that future/additional systems beyond the agreed blueprint baseline will be handled through Phase-2 or formal change control.	The systems currently identified in the tender represent the indicative scope for Phase-1 implementation. However, the final list of applications, interfaces, data sources, integration priorities, refresh frequencies, and implementation sequence shall be reviewed, validated, and finalized during the Blueprint/Detailed Design phase in consultation with OIL.
141		Sec. 4.16, p.103; pp.207, 211, 214	For 2D/3D visualization, immersive views, digital walkthroughs and embedded Digital Twin viewing, please confirm the number of assets/locations to be configured in Phase-1 and whether OIL will provide existing GIS layers, CAD/3D models, tag-to-model mappings and Digital Twin APIs. Please confirm creation of new 3D engineering models from drawings/laser scans is excluded unless specifically quantified.	Yes
142		4.19	The Bidder shall comply with OIL's IT & Cloud policies and digital architecture standards, including adherence to SSO, RBAC, data encryption (in transit and at rest), and OSDU where applicable. Request deletion of this clause.	Pl refer to amended clause
143		4.25	All source code, models, workflows, dashboards, and platform customizations shall be the intellectual property of OIL, with full rights to extend, modify, or replicate the solution. Request deletion of the requirement where source code, models, workflows to be the intellectual property of OIL.	For COTS platforms, core OEM intellectual property shall remain with the respective OEM. OIL shall own the OIL-specific source code, configurations, dashboards, workflows, models, interfaces and customizations developed under the contract, in accordance with the tender.
144		5.1.1. , 5.2.1. , 5.3.1., 5.4.1. (SITC of Computing Rack servers to access Dashboards and Application) page number : 107, 140, 163, 174	current Requirement: Windows 11 Enterprise LTSC / Pro Requested Modification: Windows Server Standard Edition (Latest Available Version)	OIL will review and revert.

145		5.1.2. Detailed Technical & Functional Requirements , page 108 and 109	Please remove the specified certificate requirements as they appear to be proprietary and are not commonly available in the market.	OIL will review and revert.
146		A6 , Page 120	Input & Output Ports for this device are all specified as HDMI 2.0 without any 3D sync ports on Input & Output side. If the 3D sources & 3D playback has to be handled by this device, we would then request you to kindly specify DP1.2/DP1.4 on input as well as output side. Please also clarify whether the applications like Petrel will run on this device?	OIL will review and revert.
147		Page 121, A6.14	Multi-touch & interactivity Are the gesture-based features: pinch-in/out, zoom-in/out also required to be supported on Petrel?	The proposed interactive visualization solution shall support the specified multi-touch functions. Application-specific gesture support, including for Petrel, shall be demonstrated where supported by the application and finalized during detailed design.
148		Sec. 6.1(k-l), p.185; CCC visualization, pp.205-213	Please define the maximum Phase-1 quantity of CCC dashboard pages/screens, OT Data Lake dashboards, reports, drill-down pages and role/location variants. Please clarify whether the “minimum 30 dashboards and 20 reports” for the OT Data Lake is separate from the CCC application deliverables.	The minimum 30 dashboards and 20 reports apply to the OT Data Lake deliverables. The detailed CCC KPI catalogue, dashboard pages, reports, drill-downs and role/location variants shall be finalized during Blueprint workshops in accordance with the tender.
149		Sec. 6.1(t), p.185	Please confirm OIL’s responsibility for enabling existing OT systems with OPC-UA/equivalent interfaces includes source-side licenses, OEM support, gateway configuration, certificates, firewall rules and availability of test/live endpoints. Please specify the date by which these endpoints will be available.	1. OT Data Lake Integration at Level 4 A. The OT Data Lake (Level 4) shall connect to the OPC servers hosted within the respective SCADA systems at Level 3.5. B. This means the OT Data Lake will act as an OPC UA client and collect data from the SCADA environment. 2. SCADA Responsibility A. The SCADA servers are required to provide OPC UA connectivity and the necessary communication ports. B. Therefore, the responsibility for providing OPC UA server functionality lies primarily with the SCADA OEM/vendor.

				3. OT Data Lake Compatibility A. The OT Data Lake solution must support OPC UA protocol for secure data exchange. 4. Data Transfer beyond OT Data Lake A. The OT Data Lake solution must support industry-standard protocols such as OPC UA, OPC DA, etc., to facilitate secure and reliable data transfer beyond the OT Data Lake to various data platforms that form part of OIL's Digital Drive 2.0 initiative.
150		OT migration, p.186; IT migration, p.202	For the two-year historical migration requirement, please provide approximate data volume by source, record/tag counts, file/database formats, data quality status, archive accessibility, extraction method and number of migration/reconciliation cycles expected before UAT.	Two years of historical data shall be migrated wherever available. Source-wise volumes, formats, quality, accessibility, extraction method and reconciliation cycles shall be assessed and finalized during Blueprint/Detailed Design.
151		Sec. 6.1(y-aa), p.186; existing SAN, pp.186-187	For the OT Data Lake, please provide the expected tag sampling distribution (e.g., sub-second/1 sec/5 sec/1 min/event-based), alarm/event rates, compression expectations and annual tag growth. Also confirm the currently available usable capacity in the existing HPE Primera 500 TB SAN allocated to this project and responsibility for capacity expansion if ten-year retention exceeds that allocation.	Bid-stage OT Data Lake sizing shall consider 50,000 initial tags, scalability to 100,000 tags and ten-year online retention. Sampling distribution, event rates, compression, annual growth and available SAN allocation shall be validated during detailed design; the bidder shall ensure the offered solution meets the complete retention and scalability requirements.
152		Sec. 6.2(f), p.201; IT system scope, p.203	For SAP S/4HANA, please identify required modules/objects, approved integration technology (APIs/OData/IDoc/BTP/other), expected transaction/data volumes, refresh frequencies and environments. Please clarify which SAP-side licenses are OIL-provided versus bidder-procured connector/adaptor licenses.	OIL will review and revert.
153		Sec. 6.2(i), p.201; pp.202-203	For the IT Business Data Lake, please provide baseline and projected volumes for structured, unstructured and multimedia data, together with retention classes (hot/warm/cold) and growth assumptions. Please confirm the retention policy to be used for bid sizing rather than leaving it entirely to post-award blueprint.	OIL will review and revert

154		Sec. 6.2-II(f), p.203	Please clarify what “OSDU-compliant” means for the Business Data Lake in Phase-1: deployment of a full OSDU platform, use of OSDU data schemas/APIs for selected subsurface datasets, or interoperability with an existing OSDU environment. Please identify required domains/data types and acceptance criteria.	OIL will review and revert
155		Sec. 6.2(m), p.202; migration/contextualization clauses	Please define data-quality responsibility and acceptance thresholds. Confirm that the bidder is responsible for validation, mapping and agreed cleansing/transformation, while correction of inaccurate/missing source-system records remains with the source-system owner unless explicitly included.	The bidder shall perform profiling, validation, mapping, cleansing, normalization and transformation required for the agreed migration and integration scope. Correction of inaccurate or missing source records shall be coordinated with the relevant source-system owner through the approved data-quality process.
156		Sec. 6.2 resource provision, p.202	Please provide a baseline cloud sizing envelope for pricing, including expected vCPU/RAM, storage by tier, databases, middleware, network throughput, API traffic, log ingestion, backup capacity and monthly data egress.	OIL will review and revert
157		IT system scope p.203; Display of Video with Metadata, p.211	For CCTV, Drone Surveillance and video analytics integration, please confirm whether the CCC/Data Lake stores full video streams, selected clips, thumbnails/metadata only, or a combination. Please provide camera/feed counts, typical bitrates, retention duration and expected daily clip volume.	OIL will review and revert.
158		Sec. 6.3-VI/VIII, pp.208-209; Configurable Workflows, pp.212-213	Please provide the expected number and complexity classes of alert rules, escalation matrices, incident workflows and automated tasks to be configured in Phase-1. Please confirm OIL will provide/approve thresholds, SOPs, escalation owners and business rules during blueprint.	The bidder shall configure the alerts, escalation matrices, incident workflows and automated tasks required for the approved Phase-1 use cases. OIL will review and approve thresholds, SOPs, owners and business rules during Blueprint workshops.

159		Sec. 6.3-XI, p.210	The tender specifies approximately 350–400 KPIs across the identified business functions, while detailed KPI definitions, formulas, data-source mapping and aggregation logic are to be finalized during the blueprint phase. Please confirm that the 350–400 KPIs represent the maximum baseline KPI scope included under SOR Item G3 – Customization and Implementation. Please also provide the indicative number of KPI instances/assets/dashboard configurations expected under Phase-1 and confirm that additional KPIs or material changes to approved KPI definitions after blueprint sign-off shall be treated as additional customization under SOR Item K1 on actual man-days.	OIL will review and revert.
160		Event & Alarm Management p.208; Configurable Alerts p.213	Please confirm mobile-app notification channels and recurring service responsibilities: email relay, SMS/phone, WhatsApp Business API/messaging gateway, push-notification service and any per-message fees. Identify which services/accounts are OIL-provided versus bidder-provided.	WhatsApp business account will be provisioned by OIL. Recurring cost to be factored by bidder.
161		AMC day-to-day operation clause; Manpower locations pp.226-228	Please clarify the support model for PHQ Guwahati and RF Jodhpur during AMC. Are these sites to be supported remotely from CO/FHQ with scheduled/preventive visits, or is permanent/periodic onsite manpower expected? Please specify minimum visit frequency and emergency travel expectations.	OIL will review and revert.
162		AMC System/Application Administrator role, p.227; Hypercare minor enhancements p.216	Please define “minor new requirements/enhancements” during AMC using a measurable service allowance, e.g., maximum person-days or change points per month/quarter/year. Confirm new modules, major UI redesigns, new integrations, new analytics models and new business processes are excluded from minor enhancement and follow change control.	OIL will review and revert.

163		AMC clauses, pp.216-217	AMC also requires data integrity/cleansing/synchronization for newly added data sources or changes in existing ones. Please define the quantity/type of source changes included in AMC and confirm integration of a new source system, new protocol or materially changed API is Phase-2/change-request work.	OIL will review and revert.
164		AMC clause on additional manpower, p.216	The bidder may be required to deploy additional manpower based on workload at no extra charge. Please define the conditions, maximum duration and workload threshold that can trigger such additional deployment, and confirm it does not create a permanent staffing obligation beyond the stated minimum team.	The bidder shall deploy adequate additional resources, when required, to meet workload and SLA obligations without compromising the minimum tendered team. This does not reduce the bidder's responsibility for completing the contracted scope within the agreed schedule and service levels.
165		Pg 221 9.1 (a)	Please confirm the contractual boundary between Phase-1 and Phase-2. Specifically, confirm that AI/ML-driven predictive and prescriptive analytics, what-if modelling, Conversational AI/NLP, and integration of remaining/new OT/IT systems are not part of the current Phase-1 implementation price unless expressly listed as current scope.	AI/ML model development, predictive/prescriptive analytics and conversational AI are not required in Phase-1. The platform shall remain future-ready for subsequent AI/ML use cases and integration of additional systems.
166		Pg 221 9.1 (b)	Please define OIL turnaround times for approvals/sign-offs during blueprint, architecture, UI/wireframe review, security/network changes, FAT/SAT/UAT and go-live readiness. Please confirm milestone dates will extend for OIL approval delays beyond the agreed turnaround time.	OIL will review and revert.
167		Implementation Schedule pp.221-223; source enablement clauses pp.185, 201	Please confirm that delays attributable to OIL or third parties - including site readiness, source-system OEM support, API/OPC enablement, credentials, network/MPLS/firewall changes, cloud landing-zone access, historical extracts and security approvals - will result in corresponding schedule relief and will not attract LD/SLA penalties.	OIL will review and revert.

168		Blueprint/UAT requirements pp.205, 221-225	Please confirm that functional requirements, KPI catalogue, dashboard/workflow list and UAT acceptance criteria will be frozen at blueprint sign-off. Any requirement introduced after that baseline that changes effort/design should follow formal change control and corresponding schedule adjustment.	The functional baseline, KPI catalogue, dashboards, workflows and UAT acceptance criteria shall be documented and approved during Blueprint. Subsequent changes shall be managed through the applicable change-control and contract provisions.
169		10.0	Please specify training quantities for bid sizing: number of batches, participants per role, duration per batch, locations, repeat/refresher sessions, and whether training at all four CCC locations is required.	The bidder shall provide role-based training, user manuals and knowledge transfer across the required locations in accordance with the tender. Batch size, participant count, duration and schedule shall be finalized in the approved training plan during implementation.
170		Sec. 12-I, pp.225-226	Please specify the required deployment location and onsite percentage for each of the six implementation roles. Must all six be physically onsite full-time, or may specialists work in a hybrid model with site attendance for workshops, integration, testing and commissioning?	The bidder shall deploy the six implementation roles and other required specialists in accordance with the tender and approved project plan. The onsite/remote deployment mix shall ensure effective workshops, integration, testing, commissioning and timely delivery at all required locations.
171		Sec. 7(c), pp.215-216; Sec. 12-I, p.226	During the four-month Hypercare period, please confirm whether all six core implementation-team members must remain deployed full-time and onsite. If yes, identify base location(s), working hours and whether rotation/remote specialist support is acceptable.	OIL will review and revert.
172		12 (II)	AMC manpower is specified for CO Delhi and FHQ Duliajan during general shift, while CCC users/operators are described as 24x7 and AMC also requires beyond-hours/weekend support. Please confirm OIL will provide 24x7 business/control-room operators and bidder resources provide general-shift operations/maintenance with after-hours remote/on-call support except for agreed P1 site intervention.	Delhi: day shift; Duliajan: 24x7. Manpower is not required at RF Jodhpur and PHQ Guwahati.

173		Sec. 12.3, p.229	Please confirm senior consultants/domain experts under Clause 12.3 are to be made available on-demand for specific assignments and are not additional full-time onsite resources.	Senior consultants and domain experts under Clause 12.3 shall be made available as required for specialist assignments, reviews and issue resolution in accordance with the tender. Their deployment shall be planned against project requirements and approved by OIL.
174		Cloud Sec. 6.6-6.7, p.332	Please clarify the cloud commercial/ownership model: Will cloud resources be provisioned in an OIL-owned Azure/CSP subscription with charges paid directly by OIL, or in a bidder-provided subscription included in the contract price? If bidder-provided, when and how is ownership/billing transferred to OIL, including Global Administrator access?	OIL will review and revert.
175		p.202; Design Criteria pp.331-332	The tender requires average CPU/RAM utilization not to exceed 60%, elastic scaling and capacity for up to 10x average load. Please confirm the baseline business/data/user growth included in the fixed price and that growth caused by new systems, new locations, users/tags beyond the agreed baseline or Phase-2 use cases will be treated as change in scope/cloud consumption.	OIL will review and revert.
176		Design Criteria Sec. 5.10-5.15, p.331; mobile capacity p.209	Please define objective performance acceptance targets before development: dashboard page-load/query latency, end-to-end data latency, mobile response, number of concurrent web/mobile users, ingestion workload, report execution time and failover criteria.	OIL will review and revert.
177		PART-4 SECTION III: SPECIAL CONDITIONS OF CONTRACT (SCC)	PART-4 SECTION III: SPECIAL CONDITIONS OF CONTRACT (SCC)	The applicable Special Conditions of Contract shall continue to apply.

178		Part C Pg 240	(5) Bidder to ensure that the proposed personnel for the project are on bidder's payroll for the last one year atleast from the original bid closing date. The bidder shall submit joining letter and payslips/salary proof for last year as a proof for the deployed resources	No change: to be guided by tender terms
179		Post-implementation SLA, p.247	Please clarify how planned leave, training, travel and approved substitutions are treated under the Rs.10,000/day absence penalty. Will an equivalent approved backup resource prevent the absence penalty?	The absence and substitution provisions, including the applicable penalty, shall continue to apply. Any replacement resource shall be subject to the prescribed qualification and OIL approval requirements.
180			The SCC "Licences, Entitlements & Portability" clause: licenses must be transferred or reissued in OIL's name at no additional cost, and "where licenses are non-transferable, the Contractor shall obtain, at its cost, replacement or perpetual licenses acceptable to OIL." Request deletion of the clause since "Licenses shall be subscription based as per OIL's preference and include support and updates for the contract duration."	Licence ownership, entitlement, transfer/reissue, portability and replacement obligations shall remain as stated in the SCC.
181		Pg 248	Company to note that the Software is licensed, and not sold, to OIL on a perpetual, non-exclusive, non-transferable basis. This Contract only gives OIL rights to use the Software for OIL's own internal business operations.	Core OEM software shall remain subject to the OEM licence terms; however, the bidder shall provide OIL all usage rights, licences, support, updates, portability and contractual entitlements required under the tender for the full contract period.
182			GCC Cl. 14.5 is revised as belowExcept for the Workmen's Compensation / Employer's Liability Insurance for workmen engaged under this Contract which have been obtained by the Contractor/Consulting Firm as their corporate policy/rules, where OIL is neither required to be present as principal assured or additional assured, all insurance policies of the Contractor/ Consulting Firm with respect to the operations conducted hereunder as set forth in clauses hereof, shall be endorsed by the underwriter in accordance with the following policy wording:"The insurers hereby waive their rights of	No change in GCC.

			subrogation against Oil India Limited or any of their employees or their affiliates and assignees to the extent of the indemnities undertaken by the Contractor/ Consulting Firm under this ContractBidder requests this change since waiver of subrogation will be to the extent of indemnities assumed by the Contractor under the contract. This clause was amended in multiple tenders/contracts for OIL including:• Tender No. CEG1335P26 for Hiring of Bundle Services for supporting Drilling Operations in Offshore Andaman Blocks AN-OSHP-2018/1 & ANOSHP-2018/2 for a period of 06 (Six) months, extendable by another 06 (Six) months at the same rates, terms and conditions - One firm well + One Optional well• Tender No. CDG1979P23 -Hiring of Integrated Drilling Services (IDS-1)• Tender No. GEM/2023/B/3923542 for Hiring of Services for upgradation of hardware and infrastructure of High Performance Computing Centre (HPCC) at Geophysics Department of OIL• Contract No. 6118193 for hiring of cementing services,• Contract No. 6118087 for hiring of wireline services in OALP Block,• Tender No. DCG3015S23 for Hiring of Pulsar Services• Tender No. CDG7411L22 for Hiring of 03 (Three) Nos. Wireline Logging Units with Services.	
183			GCC Cl. 14.6 stands deleted Same reasoning as above.	GCC Clause 14.6 shall continue to apply.
184			GCC Cl. 14.12 (ii), (iii) and (iv) stands deleted We request for deletion since work will be carried out at OIL's office and not at wellsite. This has been agreed in multiple contracts: • Contract No. 6117171 for AMC of Petrel Geoscientific Software • Contract No. 6117480 for AMC of Techlog Software.	GCC Clause 14.12(ii), (iii) and (iv) shall continue to apply.

185			GCC Cl. 38 stands deleted Not applicable to Bidder's scope of work under this tender	GCC Clause 38 shall continue to apply.
186		Insert new clause	Please add this new clause below : While providing the goods/services to Company, Contractor may utilize expertise, know-how and other intellectual capital (including intellectual property) and develop additional expertise, know-how and other intellectual capital (including intellectual property) which are the Contractor's exclusive property and which Contractor may freely utilize in providing goods/services for its customers. Except where expressly and specifically indicated in writing and in exchange for appropriate agreed payment, Contractor does not develop any intellectual property for ownership by OIL. Contractor retains sole ownership of any such intellectual capital (including intellectual property) created by Contractor during the course of providing the goods/Services. Contractor grants no title, license or right to OIL to use Contractor Group's intellectual capital (including intellectual property). We request OIL to please replace this clause with the standard clause on Intellectual Property Ownership. This clause was agreed in multiple contracts including: • Tender No. GEM/2023/B/3923542 for Hiring of Services for upgradation of hardware and infrastructure of High-Performance Computing Centre (HPCC) at Geophysics Department of OIL • Contract No. 6116940 dated 10 May 2022 • Contract No. 6116167 dated 2 May 2022 • Contract No. 6118193 for hiring of cementing services Contract No. 6118087 for hiring of wireline services in OALP Block	Not accepted

187		Insert new clause	Please add this new clause below: Contractor shall not be liable for any intellectual property infringement due to: (a) specific modification or design of Contractor's goods or services to meet OIL's specifications, (b) combination of Contractor's goods or services in combination of other products and/or services not recommended by Contractor, (c) out of unauthorized additions or modifications to Contractor goods by OIL, or (d) OIL's use of Contractor's goods or services that does not correspond to Contractor's published standards or specifications; in which case, OIL shall indemnify and hold Contractor harmless from any claims.While Bidder agrees to indemnify OIL for IP Infringement, Bidder will not be able to indemnify OIL for IP Infringement in certain exceptional cases. We request OIL to please add these standard exclusions for IP Infringement. This has been agreed by OIL in several POs including: • Tender No. GEM/2023/B/3923542 for Hiring of Services for upgradation of hardware and infrastructure of High-Performance Computing Centre (HPCC) at Geophysics Department of OIL • Contract No. 6118087 for Hiring of Wireline Services for exploratory drilling in OALP blocks Contract No. 6118193 for hiring of cementing services	Not accepted
188		Insert new clause	Please add the following new clause: Company shall at all times be responsible for the product(s) provided by Company and for providing back up for all and data files. It is clearly understood that Contractor has no liability for loss, damage, or destruction to any Company data, except in the case of intentional misconduct, in which case Contractor's sole liability is limited to reloading the data from the most recent database back-up. In no event shall Contractor ever be liable for reacquiring Company's data. We request OIL to please add this clause on Data Liability considering the scope of work. This has been agreed by OIL in several POs/tenders including: • GEM/2024/B/5560778 for Hiring of Consultants • GEM/2023/B/4362014 for Hiring of Consultancy Services for Basin Modelling Study. GEM/2023/B/4200591 for Hiring of Consultancy Services to carry out G&G Studies pertaining to Offshore Andaman and Nicobar Basin	Not accepted

189		Insert new clause	Please add this new clause below: Notwithstanding anything to the contrary in the Contract, interpretation, recommendations and / or well or reservoir descriptions, deliverables and decisions may involve information and data furnished by OIL, the accuracy and reliability of which are not the responsibility of Contractor. Under no circumstances should OIL treat or rely upon the use of the software/goods/services or any deliverable as the sole basis for any decision, be it operational, technical, financial, commercial or otherwise, related to the wellbore, the reservoir or the field, including but not limited to any decisions related to well planning, drilling safety and performance, field development, well control, production optimization, contingency planning and infrastructure and systems design and optimization. Therefore, for the avoidance of doubt, Contractor does not provide warranty for the accuracy, correctness or completeness of deliverables, and OIL takes full responsibility for any decisions taken by OIL based on all interpretations, recommendations, deliverable and / or well or reservoir descriptions. We request inclusion of this clause as this is an industry recognized standard. Bidder provides services based on good judgement and cannot guarantee the utter accuracy of any data or interpretation thereof.	Not accepted
190		Insert new clause	Please add the new clause below: The Software is licensed, and not sold, to OIL on a non-exclusive, non-transferable basis. This Contract only gives OIL rights to use the Software for OIL's own internal business operations. OIL may use the Software only as expressly granted to OIL in this Contract, and Seller reserves all other rights that are not specifically granted to OIL.We request OIL to please include this standard clause for licensing. This clause has been agreed by OIL in previous POs as below:§ PO 7913514/DFD/L6 dated 25 July 2024§ PO 7911964/LCP dated 29 April 2022§ PO 7951342/DFD/L6 dated 2 November 2021§ PO 7951330/SJG dated 16 August 2021	OIL will review and revert

191		Insert new clause	Please add this new clause below: The software warranty cover is subject to OIL follows the instructions and operates the software on computer systems that comply with Seller's published technical specifications, Seller warrants that during the term of the warranty period, the Software will perform as described in the Seller's Documentation that OIL receive in or with the Software. Seller does not provide any warranty for Software that has not been properly licensed. We request OIL to please add this clause on software warranty. import and export compliance. This clause has been agreed by OIL in previous Contracts and POs as below: § PO 7913514/DFD/L6 dated 25 July 2024 § PO 7951342/DFD/L6 dated 2 November 2021 § PO 7951330/SJG dated 16 August 2021	Not accepted
192		Insert new clause	Please add this new clause below: The Seller's sole responsibility under the warranty clause will be to provide the solution / goods / equipment / software, maintenance and/or services described in the Contract with OIL. Warranties do not apply to : (a) any goods other than goods / software listed in the Contract, or (b) conditions resulting from improper use or storage of the goods or operation of the goods outside the specified environmental conditions; or (c) conditions resulting from causes external to the goods /software after delivery;' or (d) conditions resulting from modifications to the goods / software other than modifications made by Seller or Seller's service vendor; or (e) conditions resulting from movement of the goods /Software; or (f) goods /Software from which Seller's or Seller's service vendor's serial numbers have been removed. We request OIL to please add this clause on limited warranty. import and export compliance. This clause has been agreed by OIL in previous Contracts and POs as below: § PO 7913514/DFD/L6 dated 25 July 2024 § PO 7951342/DFD/L6 dated 2 November 2021 § PO 7951330/SJG dated 16 August 2021	Not accepted

193		Insert new clause	Please add this new clause below: OIL is not authorized any may not authorize anyone else to do any of the following: (a) Obtain unauthorized access to the Software, for example, by bypassing security features, including but not limited to license control features that limit or record the number of users, in or for the Software; (b) Reverse engineer, decompile or disassemble the Software except and only to the extent required by law; (c) Make more copies of the Software than specified in the Contract; (d) Publish the Software; (e) Develop or create modifications, improvements and/or derivative works of the Software; (f) Display the Software in any manner except as provided herein; (g) Rent, lease, lend, sub-license or otherwise distribute or assign OIL'S rights in the Software, including but not limited to assigning or sub-licensing OIL'S rights to use the Software to third parties without Seller's prior written consent, (h) Separate out or use any portion of embedded Software for any purpose such as commercial or competitive analysis of Seller's Software; (i) Transfer the Software from the Geographic Unit of first delivery without notifying Seller and paying any related charges associated with a license transfer or access; or (j) Deliberately modify or disable or otherwise "crack" any feature incorporated in the Software, including those that are intended to prevent access to unlicensed software.We request OIL to please add this clause on limitations of license. import and export compliance. This clause has been agreed by OIL in previous Contracts and POs as below:§ PO 7913514/DFD/L6 dated 25 July 2024§ PO 7951342/DFD/L6 dated 2 November 2021PO 7951330/SJG dated 16 August 2021	Not accepted
194		Cybersecurity (New clause)	Please add this new clause below: Security Incident: For the purpose of this clause, Security Incident means any actual damage to the integrity or security of: (i) the online services available to OIL under this contract; or (ii) the infrastructure or systems on which the services operate or rely upon. A Security Incident includes a Personal Data Breach and any other unlawful or unauthorized access to any data resulting in loss, disclosure, or alteration of the data. OIL must promptly notify Contractor and maintain as confidential any information about: (i) any possible Security Incident caused by the act or omission of OIL and/or a User; (ii) any security vulnerability of the Online Services	Not accepted

			discovered by OIL and/or a User; and/or (iii) any suspected misuse of the Online Services by OIL and/or a User. Contractor provides the Online Services in accordance with its Privacy Notice (http://www.slb.com/about/privacy.aspx), including the data protection addendum contained therein, and the applicable security standards set out at: https://www.software.slb.com/slb-online-services-security. If there is a Security Incident affecting OIL Data: Contractor will notify OIL about the Security Incident without undue delay upon becoming aware; Contractor may immediately suspend the Online Services, or Users' access without notice and for as long as Contractor, acting reasonably, deems necessary; and Contractor may adjust OIL's fees to account for an interruption to the Online Services, provided that the Security Incident was unrelated to OIL's or Users' acts or omissions. OIL will indemnify, defend, and hold harmless Contractor and its Affiliates, officers, directors, employees, successors, and assigns, from and against any and all losses incurred in connection with any claim, suit, action, or proceeding that arises out of or relates to any Security Incident.	
195		(New Clause)	Please insert new provision as follows: In connection with the work to be provided under the Contract, each Party shall comply and shall endeavor to ensure that Contractor or Company along with its affiliates, comply at all times with all applicable trade embargo and export control laws, rules and regulations, including, without limitation, those of the United States, and shall not export or re-export any goods, directly or indirectly, without first obtaining all written consents, permits, or authorizations and completing such formalities as may be required by any such laws, rules or regulations. Each Party agrees that it shall hold harmless and indemnify the other Party for its breach of the applicable laws and regulations.This is to ensure compliance with the applicable trade control laws and to avoid any violation of such rules and regulations by both parties.	Not accepted

196		Table B	On actuals after submission of VAPT certificate(H1). One pre-Go-live VAPT during the implementation phase and one VAPT in the first month of each year of the 5-year AMC period Request to update payment terms as first month of each year of AMC	VAPT shall be carried out as specified in the tender, including one pre-Go-Live assessment during implementation and one assessment in the first month of each AMC year. Payment shall be governed by the applicable SOR milestone and submission/acceptance requirements.
197			To be paid quarterly after deduction of penalty, if any after successful completion of service delivery for the quarter month Request to update payment terms as monthly	OIL will review and revert.
198			To be paid quarterly monthly after deduction of penalty, if any after successful completion of service delivery for the quarter Request to update payment terms as monthly	OIL will review and revert.
199			Note: If the contractor fails to complete de-mobilisation activities, OIL shall withhold last quarter month AMC payment and performance security.	Demobilization, withholding of payment and performance-security obligations shall remain as specified in the tender.
200		Proformas	Kindly delete Requesting to kindly delete Proforma-XX.	OIL will review and revert.

201		Proforma XX	Kindly delete Requesting to kindly delete Proforma-XX.	OIL will review and revert.
202		Sec. 12-I, pp.225-226	The implementation table specifies six minimum roles, but also requires “adequate and suitably qualified resources” in addition to those specified. Please confirm the six roles are the mandatory minimum nominated team and the bidder may determine additional delivery resources based on its approved project plan, without an open-ended obligation for permanent additional onsite manpower.	The six listed roles constitute the minimum nominated implementation team. The bidder shall additionally deploy adequate qualified resources required by its approved project plan to complete the scope; deployment shall comply with the tendered onsite and delivery obligations.
203		Annexure-A2 , page 40	Project Manager – Engineering graduate with 10 years of large project execution experience in the Oil and Gas industry, with expertise in the production/drilling domain	Shall be reviewed and confirmed by OIL.
204		Sec. 3.4, p.41 (MOBILIZATION PERIOD)	The bidders must confirm their compliance in their “technical” bid to complete the mobilization within 30 (Thirty) days from the date of Letter of Award (LOA). Please extend to 60 days..	OIL will review and revert.
205	113	Page 113, A2; Page 158, B7.25 | Active LED frame rate	Add minimum Active LED frame rate of 120 Hz because stereoscopic 3D and 120 Hz gaze detection are required.	No Change; To be guided by tender terms;

206	145	Page 145, B2; Page 158, B7.25 | Active LED frame rate	Add minimum Active LED frame rate of 120 Hz for the FHQ Active LED display.	No Change; To be guided by tender terms;
207	116	Page 116, A4.1.5 | KVM security wording	Replace “io and USB data flow” with “actual video and USB data flow”.	Refer to amendments to be published
208	148	Page 148, B4.1 | KVM security requirement	Add the secured video and USB data-flow requirement under the FHQ KVM solution.	No Change; To be guided by tender terms;
209	168	Page 168, C3.3.2 | Resolution typo	Replace 3940 × 2160p with 3840 × 2160p or higher.	Refer to amendments to be published
210	178	Page 178, D3.2.1 | Resolution typo	Replace the stated non-standard resolution with 3840 × 2160p or higher.	Refer to amendments to be published

211	149	Page 149, B4.1.4; Page 140, B4 | FHQ monitor quantity	Increase FHQ curved-monitor quantity from 4 to 5 to match five operator workspaces.	Refer to amendments to be published
212	165	Page 165, C2.2 | RF LED screen dimension	Clarify 120-inch screen size as diagonal and add 16:9 aspect ratio.	No Change; To be guided by tender terms;
213	175	Page 175, D2.2 | PHQ LED screen dimension	Clarify 120-inch screen size as diagonal and add 16:9 aspect ratio.	No Change; To be guided by tender terms;
214		Technical submission – all four sites | Technical schematic drawings	Confirm mandatory detailed technical schematics showing architecture, equipment, interconnections and signal flow.	Details are already mentioned in tender;
215		Technical evaluation | End-to-end demonstration	Clarify whether evaluation will include a demonstration based on the submitted schematic.	No;

216		Technical compliance statement | OEM Make and Model	Confirm mandatory OEM name, Make and Model against each applicable line item.	Already specified wherever necessary;
217	100	Pages 100, 102, 174; Clauses 2.4, 4.1, 5.4.1 | PHQ and RF physical-infrastructure scope	Resolve inconsistency on civil works at PHQ and fire-and-safety scope at RF.	To be guided by tender terms;
218	256–259	Pages 256–259; SOR A16/B12/C8/D8 | Open-ended “Any Other Item” lots	Clarify scope and measurement, or delete the four open-ended physical-infrastructure lots; correct D8 location.	Refer to amendments to be published
219	256–259	Pages 256–259; SOR A16/B12/C8/D8 | Duplicate submission	Same query as Sr. No. 14 repeated in the submitted pre-bid document.	Refer to amendments to be published
220	141	Pages 141, 153 and 257; B6/B6.9 | FHQ 4K HDMI input quantity	Confirm whether B6 requires 40 or 20 4K HDMI inputs.	Refer to amendments to be published

221	140	Pages 140, 149–150, 164, 167–168, 174, 178–179 | Operator monitor quantities	Confirm monitor quantities at FHQ, RF and PHQ.	Refer to amendments to be published
222	140–150	Pages 140–150, 164–179 and SOR | Number of operator workspaces	Confirm exact workspaces, monitors, consoles and keyboards for FHQ, RF and PHQ.	Refer to amendments to be published
223	32	Page 32, BEC 3.2(A) | Eligible industry sectors	Add Banking/Finance/Smart City/Safe City to qualifying sectors for Command & Control Centre experience.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
224		Site survey and technical design submission | Site survey and 2D/3D drawings	Request mandatory site survey and submission of 2D/3D drawings to establish wall size and control-room design.	Refer to Table - 'Implementation and Delivery Schedule' under 9.2 Phase 1(Current Scope) Implementation Timeline
225	107, 140, 163, 174	5.1.1. , 5.2.1. , 5.3.1., 5.4.1. | SITC of Computing Rack servers to access Dashboards and Application | Windows 11 Enterprise LTSC / Pro	Windows Server Standard Edition latest version	OIL will review and revert.

226	221	AI/ML – current vs future scope | SoW Clause 9.1(b) | Phase-2 is identified as future scope and includes AI/ML predictive/prescriptive analytics, what-if modelling and Conversational AI.	Kindly confirm that AI/ML-driven predictive/prescriptive analytics, what-if modelling and Conversational AI/NLP identified under Phase-2 are not required to be priced, implemented or commissioned under the present Phase-1 contract, except for making the architecture future-ready.	No AI/ML model development, predictive or prescriptive analytics implementation, or conversational AI development is required in Phase-1. The proposed platform shall be architected and provisioned to support future AI/ML and GenAI capabilities.
227	260	OT integration quantity | BOQ / Price Schedule Item E3 | OT System Integration is payable on actual number of systems integrated; BOQ quantity is 15.	Kindly provide the final list of OT systems/sites/OEMs/interfaces proposed for integration and confirm whether the quantity of 15 is an estimated quantity for evaluation or a committed maximum quantity under the present scope.	OIL will review and revert
228	260	IT integration quantity | BOQ / Price Schedule Item F3 | IT System Integration including data pipeline development is payable on actual number of systems integrated; BOQ quantity is 15.	Kindly provide the application-wise list of IT systems proposed for integration, along with interface/API availability, hosting environment, application owner and expected integration method for each system, and confirm whether the quantity of 15 is indicative or a committed maximum.	OIL will review and revert
229	260	Definition of one integration | BOQ / Price Schedule Items E3 & F3 | Payment is based on actual number of systems integrated, but the unit definition of one 'system integration' is not explicitly defined.	Kindly clarify what shall constitute one IT/OT 'system integration' for measurement and payment purposes—e.g., one application, one instance, one site, one SCADA/DCS platform, one interface/API, or one OEM system.	To be guided by tender payment terms;
230	329; 260	Historical data migration period | Technical Requirements Clause 3.18; BOQ Items E5 & F6 | Clause 3.18 requires minimum two years of historical data, while BOQ refers to two completed financial years and current year.	Kindly confirm the exact historical data period to be considered for sizing, migration effort and pricing, in view of the difference between Clause 3.18 and BOQ Items E5/F6.	Bid-stage sizing shall follow the tender baseline of 50,000 initial OT tags scalable to 100,000, two years of historical migration wherever available, and ten-year online OT retention. Detailed source-wise volumes, growth, scan rates, event loads, retention tiers, storage allocation and migration datasets shall be validated and finalized during Detailed Design.

231	329	Historical data availability / quality | Technical Requirements Clause 3.18 | Migration is required 'wherever available', with bidder responsible for extraction, transformation, data quality checks, metadata mapping and contextualisation.	Kindly confirm that OIL will facilitate access to available historical OT/IT data in extractable formats. Where data is unavailable, incomplete, corrupt, inaccessible due to legacy/OEM restrictions or otherwise not technically extractable, kindly confirm that the same shall not be treated as bidder non-performance or delay.	OIL will provide network backbone till Data Lake, In case an integration issue arises due to problems at the system level (e.g., IT system APIs or OT system endpoints), the bidder shall inform OIL with detailed information, including the system name, affected modules, and nature of the issue. Troubleshooting and resolution shall be carried out jointly with OIL to identify the root cause and implement the necessary fixes.
232	334	Unspecified hardware / software | Annexure-A3 Licensing Clauses 8.1 & 8.2 | Any additional hardware, software or licences found necessary during implementation are required to be provided at bidder's cost even if not specified in bid documents.	Kindly confirm that the obligation to provide additional hardware/software/licences at no extra cost is limited to items reasonably necessary to meet the explicitly defined and approved scope/BOQ. Any new requirement, increase in quantities, new integration, or material scope change may please be handled through a mutually agreed change-control mechanism.	OIL will review and revert
233	103; 102	Cloud platform / landing zone | SoW Clause 4.5; Current State Clause 3.3(c)-(d) | CCC application and IT data lake are cloud-based; OIL follows a multi-cloud strategy with majority workloads on Azure and a common landing zone.	Kindly confirm whether Microsoft Azure is mandatory for the CCC Application and IT Data Lake or whether other MeitY-compliant cloud platforms are acceptable. Also clarify whether the successful bidder shall use OIL's existing cloud landing zone/subscription or provision a separate subscription/landing zone.	OIL will review and revert
234	334	Cloud sizing inputs | Annexure-A3 Licensing Clauses 8.4–8.6 | Bidder must document cloud subscription models, usage limits, scaling considerations, usage and cost reporting, but baseline sizing inputs are not clearly defined.	Kindly provide indicative data volumes, ingestion frequency, retention period, concurrent users, dashboard refresh requirements, compute/storage sizing, expected annual data growth and availability/DR requirements to enable comparable cloud sizing and pricing across bidders.	OIL will review and revert
235	334	Cloud consumption variation | Annexure-A3 Licensing Clauses 8.6–8.8 | Cloud costs and subscription quantities are usage-dependent; exact licence quantity is to be mutually agreed during design.	Kindly clarify whether bidders should quote a fixed cloud consumption cost for the full contract period based on defined baseline sizing, or whether consumption beyond the approved baseline shall be reimbursed/paid on actuals as per an agreed rate card or change-control mechanism.	OIL will review and revert

236	184	OT Data Centre readiness | SoW / Technical Requirements Clause 6.1 | OT Data Lake is to be deployed at FHQ Duliajan Data Centre.	Kindly provide the available data-centre infrastructure details at FHQ Duliajan, including rack space, power, cooling, LAN connectivity, firewall/DMZ infrastructure, storage/network zones, backup/DR provisions and any constraints to be considered for OT Data Lake sizing and deployment.	OIL has a functional DC where the OT data lake would be hosted. Details could be given post award of contract.
237	219	IT/OT connectivity dependencies | Cyber Security Clause 8.1(h)-(i) | Connections from isolated systems must use approved security infrastructure and IT/OT transfer only through approved secure gateways.	Kindly confirm that OIL will facilitate required network/firewall approvals, secure gateway availability and source-system access up to the agreed integration point. Delays arising from existing OEMs, application owners, network/firewall approvals or source-system access outside the bidder's control may please be excluded from bidder-attributable delay/LD.	OIL will review and revert.
238	105	Source code / IP ownership | SoW Clause 4.25 | All source code, models, workflows, dashboards and platform customisations are stated to be OIL's intellectual property.	Kindly confirm that Clause 4.25 applies to project-specific custom development created exclusively under this contract and excludes bidder/OEM pre-existing IP, COTS products, proprietary frameworks, reusable libraries, accelerators and standard platform components, for which appropriate licence/usage rights shall be granted to OIL.	OIL will review and revert.
239	183; 334	Licensing model | Technical Spec D5.13 / similar; Annexure-A3 Clauses 8.7–8.8 | Certain on-premise components require perpetual licences, whereas normal platform licences are stated to be subscription based.	Kindly provide a component-wise confirmation of the required licensing model—perpetual versus subscription—for all software/platform components, including ownership/usage rights and support obligations after expiry of the 5-year AMC period.	OIL will review and revert.
240	31	OEM MAF | BEC Clause 3.1 | Tender-specific MAF is required for seven OEM product categories.	Kindly confirm whether bidders may propose more than one technically compliant OEM make for the MAF-listed categories at bid stage and whether the final make/model may be selected during detailed design from among the technically accepted OEMs.	MAF is required for offered items make and model.

241	105	OEM back-to-back support | SoW Clause 4.24 | Bidder must maintain valid back-to-back support agreements with respective OEMs for all supplied components.	Kindly confirm whether the back-to-back OEM support agreement must cover the complete implementation plus 5-year AMC period and whether documentary evidence of such agreement is required at bid submission stage or may be submitted after award before supply/commissioning.	Back-to-back OEM support shall cover the complete implementation period, including Hypercare, and the full five-year AMC period. Documentary evidence shall be submitted with the bid wherever specifically required under the BEC or tender; for other components, valid OEM support documentation shall be furnished before supply or deployment.
242	37–40	Supporting company key personnel | Notes to BEC Clause 3.2.2(I)/(II)/(III); BEC Clause 3.2.3 | Where technical qualification relies on supporting-company/JV experience, identified key personnel are required from the supporting entity during implementation.	Kindly clarify which and how many of the six identified key personnel under Annexure-A2 must necessarily be deployed from the supporting company/JV partner where the bidder relies on such entity's experience for technical qualification.	Shall be reviewed and confirmed by OIL.
243	221–223	10-month implementation schedule / dependency relief | SoW Clause 9.2 | Phase-1 implementation is required within 10 months, with intermediate milestones for design, infrastructure, integration and go-live.	Kindly confirm that delays attributable to site handover/readiness, OIL approvals, source-system access, incumbent OEM/application-owner support, cloud/network provisioning, statutory approvals or other dependencies outside the bidder's control shall result in corresponding extension of affected milestones without levy of LD/penalty.	OIL will review and revert.
244	329	OIL approval turnaround time | Technical Requirements Clauses 4.2–4.4 | UI/wireframes, KPI catalogue, use cases and acceptance criteria require OIL review/formal approval before development.	Kindly define the review/approval turnaround time for drawings, design documents, architecture, BoQ, UI/UX, KPI catalogue, use cases, FAT/SAT/UAT documents and other approval-dependent deliverables. Kindly also specify the escalation/deemed-approval mechanism in case approvals are delayed beyond the agreed timeline.	OIL will review and revert.
245	247; 186	SLA uptime calculation | SLA Clause 4.4(5); OT Data Lake Clause 6.1(dd) | Overall solution/OT Data Lake uptime requirement is 99.95%.	Kindly clarify the system boundary and components included in the 99.95% uptime calculation, along with exclusions for planned maintenance, OIL network/power outages, cloud-service-provider outages, source-system/OEM downtime, telecom failures and other dependencies outside bidder control.	OIL will review and revert.

246	262; 223	Hypercare acceptance / withheld payment | Payment Terms – Rows 5 & 6; SoW Clause 9.2 – Hyper Care | 5% of Implementation Cost is withheld through the 4-month Hypercare period and released after successful issue resolution, subject to penalty deductions.	Kindly define objective acceptance and closure criteria for completion of the Hypercare period and release of the withheld 5% Implementation Cost. Kindly confirm that minor/non-critical open observations that do not affect agreed functionality/SLA shall not indefinitely defer Hypercare closure and payment release.	The applicable GCC/SCC, payment, SLA, liability and commercial provisions shall continue to apply.
247	3; 105	Site information | Pre-Bid Clause 3.2; SoW Section 5(ii) | RFP recommends site visits and separately states bidder shall conduct a pre-bid site visit for all CCC locations.	Kindly confirm the process, dates and focal points for arranging site visits at all four CCC locations and provide available architectural drawings, electrical SLDs, HVAC details, network diagrams and site measurements to ensure uniform basis for design and commercial estimation by all bidders.	Winning bidder shall mandatorily conduct site visits and verify the available conditions.
248	184	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration | a) The objective is to establish a centralized OT Data Lake for unifying, storing, and managing real-time data from diverse OT and IoT systems, enabling seamless integration, advanced analytics, and enterprise-wide visibility.	Bidder requrst clarification: i) Do bidder needs pull data from the Cloud dataleke and add OT/IT data to create a datalake for enterprise wide and perform advanced analytics, and enterprise-wide visibility ? ii) Do bidder needs pull data from the Cloud datalake or not ? If yes how much data set available in cloud ?	OIL will review and revert.
249	192	b) Key techno-functional requirements: The data shall be acquired at the same frequency as the source data isupdating. The data shall be acquired at the same frequency as the source data is updating. | Interfacing with operational data sources. j. The system shall integrate and consolidate data from a variety of data sources including individual unit DCS, SCADA systems, automation systems, databases, controllers and devices including meters, IOT sensors with support to standard industry protocols: • OPC-DA • OPC-HDA • OPC- A&E • OPC-UA • MODBUS TCP/IP • IEC 61850 • IEC 60870-5-104 • DNP3 • RDBMS • BACNet • MQTT • SNMP	We have observed, RDBMS is also included in relatime integration request to confirm this since it needs CDC for integration.	OIL will review and revert.

250	186/187	a) OT Data Lake Resources Provision | a) OT Data Lake Resources Provision i. The proposed OT Data Lake solution shall be deployed at OIL's Data Centre located at Field Headquarters (FHQ), Duliajan, Assam. The bidder shall supply the rack servers and software licences as specified in this tender. OIL shall provide the required rack space for hosting the servers. The bidder shall be solely responsible for the installation, configuration, commissioning, integration, testing, and successful deployment of the VMware Cloud Foundation (VCF) solution on the supplied servers utilizing the supplied VCF licences. The bidder shall utilize OIL's existing HPE Primera A670 500 TB SAN Storage for storage requirements and integrate the VCF solution with the existing SAN infrastructure. The bidder shall also utilize the following existing OIL infrastructure for deployment of the solution:	Request to clarify , whether bidder needs supply and utilise or utilize existing VCF licences ?	OIL will review and revert
251	187	a) OT Data Lake Resources Provision | The bidder shall ensure successful end-to-end integration of the proposed solution with the existing infrastructure.	Request to clarify on the migration ?Do we require to migrate the CVF solution to new platform ?	Details to be finalized during design stage
252	187	a) OT Data Lake Resources Provision | The bidder shall ensure successful end-to-end integration of the proposed solution with the existing infrastructure.	Request to clarify on the migration ?Do biddder need to perform data migration to the datalake from existing storage?	Bid-stage sizing shall follow the tender baseline of 50,000 initial OT tags scalable to 100,000, two years of historical migration wherever available, and ten-year online OT retention. Detailed source-wise volumes, growth, scan rates, event loads, retention tiers, storage allocation and migration datasets shall be validated and finalized during Detailed Design.

253	198	Integration with enterprise system | nnn. The system shall provide integration capabilities with multiple enterprise systems and applications. It shall provide a wide variety of tools for to integrate and exchange data with third party systems	Bidder understand there will be contineous data exchange between Oil India and 3rd party, which requires a APIM solution. Request to clarify the understanding is correct.	OIL will review and revert.
254	199	Scalability and Architecture | ppp. The system shall support horizontal scalability to accommodate additional field installations, wells, facilities, and users without performance degradation. qqq. The system shall support vertical scalability to enable the addition of new analytical modules, tools, and functional capabilities over time.	Bidder reuest to change of the clause: The system shall support horizontal OR vertical scalability to accommodate additional sources for integration and additional users onboarding without performance degradation.	OIL will review and revert.
255	107, 140, 163, 174	Part-4, Section-II | 5.1.1/A5; 5.2.1/B5; 5.3.1/C4; 5.4.1/D4 | SITC of computing rack servers to access/run dashboards and applications; detailed specifications prescribe Windows 11 Enterprise LTSC/Pro on 2U dual-socket rack servers.	Please confirm that enterprise rack servers may be supplied with the latest Windows Server Standard/Datacenter edition, appropriately licensed, instead of a desktop operating system. Windows 11 is generally not certified for server-class platforms and may constrain OEM supportability. Equivalent or higher supported configurations should be accepted.	OIL will review and revert.
256	119-120, 151-152, 170-171, 181	Part-4, Section-II | A5/B5/C4/D4 - Computing rack servers | Processor is specified only as 2.4 GHz, 16 cores, 32 threads and 24 MB cache; motherboard must be dual-socket compatible, while no processor quantity per server is stated.	Please clarify whether one or two processors are required per server and allow the bidder to propose current-generation Intel Xeon or AMD EPYC processors meeting or exceeding the required aggregate core count and benchmark performance. Acceptance based on performance rather than cache/base-frequency values will avoid obsolete or model-specific configurations.	OIL will review and revert.
257	119-120, 151-152, 170-171, 181	Part-4, Section-II | A5/B5/C4/D4 - Computing rack servers | 4 GB server-grade graphics card with minimum three HDMI ports is prescribed in a rack server.	Please allow an OEM-supported professional GPU with DisplayPort/mini-DP/USB-C outputs and certified active HDMI adapters, as already contemplated in the clause. Please also confirm the required display resolution, refresh rate, number of simultaneous displays and application GPU workload so that the GPU can be correctly sized.	OIL will review and revert.

258	119-120, 151-152, 170-171, 181	Part-4, Section-II | A5/B5/C4/D4 - Computing rack servers | 500 GB SSD, 2 x 1 GbE and 2 x 32 GB memory are specified without RAID, endurance, boot redundancy or network segmentation requirements.	Please provide the required workload sizing and confirm acceptance of an OEM-recommended configuration with RAID-1 boot drives, enterprise SSDs, higher-speed redundant NICs and sufficient memory, where it improves availability without reducing the stated minimum capacity.	OIL will review and revert.
259	119-120, 151-152, 170-171, 181	Part-4, Section-II | A5/B5/C4/D4 - Computing rack servers | Microsoft Office LTSC and antivirus with Internet Security are required on each rack server.	Please confirm whether Office is required on all 40 rack servers. As Office and endpoint Internet Security products are normally intended for user endpoints, please allow centralized server-grade endpoint protection/EDR approved by OIL and Office only on operator endpoints where functionally required.	OIL will review and revert.
260	107, 140-141, 163-164, 174	Part-4, Section-II | 5.1.1, 5.2.1, 5.3.1, 5.4.1 - Indicative BOQ | The BOQ calls for 15 + 15 + 5 + 5 standalone computing rack servers for dashboards/applications.	Please share the workload-to-server mapping, concurrency, application architecture and availability requirement. Please permit consolidation using a virtualized, centrally managed server pool/VDI or remote application architecture with equivalent or better resilience and user experience, reducing hardware footprint, power, cooling and operational cost.	OIL will review and revert.
261	186-192	Part-4, Section-II | 6.1(a), A1-A3 - OT Data Lake resources | Four servers are specified with VCF, local NVMe and integration to existing HPE Primera A670 SAN.	Please share the existing Primera A670 usable/free capacity, firmware/OS version, replication and performance headroom, zoning standards, multipathing policy and support entitlement. OIL may please confirm that any upgrade, license, configuration or remediation required on the existing SAN/SAN switches for integration will be in OIL scope unless explicitly included in the BOQ.	OIL will review and revert.
262	187-191	Part-4, Section-II | 6.1(a)(i), A1.12-A1.17 | Bidder must integrate with Dell ToR, Cisco MDS and HPE Primera and remain responsible for end-to-end interoperability and future reconfiguration/migration.	Please confirm that bidder responsibility is limited to supplied components and documented integration activities. Failures, performance limitations or changes attributable to existing OIL infrastructure, third-party OEM support, unavailable ports/licenses or unsupported firmware should be excluded from bidder SLA/LD and handled through mutually agreed change control.	OIL will review and revert.

263	188	Part-4, Section-II | 6.1(a), A1.3 - Processor | Minimum 2 x Intel Xeon 6 Granite Rapids-D or later, 24 cores/CPU, 3.0 GHz base and 128 MB cache is mandated.	Please allow Intel Xeon 6 or latest-generation equivalent processors that meet or exceed the required aggregate cores and industry benchmark performance. Base frequency and cache should be treated as indicative because current CPUs use different core/cache architectures and a strict combination may unnecessarily restrict technically equivalent OEM configurations.	OIL will review and revert.
264	188-189	Part-4, Section-II | 6.1(a), A1.7-A1.9 - Local NVMe and SAN | Each server requires 30 TB usable local NVMe, while the majority of application workloads are to be hosted on the existing SAN.	Please clarify the intended use, RAID/protection level, write endurance, data reduction assumption and usable-capacity calculation for the 30 TB local NVMe per server. Please also clarify whether this capacity is required for vSAN, buffer/cache, logs, or application data, so that duplicate storage cost is avoided.	OIL will review and revert.
265	188-190	Part-4, Section-II | 6.1(a), A1.5 and A1.9 - Connectivity | All 25 GbE ports are to be populated and connected as two links to each ToR; dual 32G FC ports are also required.	Please provide available port count, port speed, optic type, connector type, fibre type/length, rack-to-switch distance, VLAN/VXLAN details, MC-LAG configuration and SAN fabric/zoning information. OIL may confirm that switch-side licenses, ports, configuration and change windows will be provided by OIL.	OIL will review and revert.
266	189	Part-4, Section-II | 6.1(a), A1.12 - Compatibility | Server must be vSAN ReadyNode/certified and validated for the latest VCF version, although workloads will largely use external SAN storage.	Please confirm whether vSAN will actually be deployed. If not, please allow servers listed in the Broadcom Compatibility Guide for the proposed ESXi/VCF version without requiring a vSAN ReadyNode designation, provided the complete offered configuration is OEM-supported.	OIL will review and revert.
267	191-192	Part-4, Section-II | 6.1(a), A2 - VCF licenses | VCF is requested for 192 cores; component list states vCenter Standard term license per instance - 192 instances.	Please confirm that one vCenter Server instance, or the number required by the final approved architecture, is intended and that 192 refers to licensed processor cores rather than 192 vCenter instances. Please also confirm that licensing will follow the OEM metric and SKU available on the bid date.	OIL will review and revert.

268	188, 191-192	Part-4, Section-II | A1.3 and A2/A3 - Core licensing | Four servers with 2 x 24-core CPUs equal 192 physical cores; VCF and Windows Datacenter are also specified for 192 cores.	Please confirm that the quoted 192-core subscriptions cover all four servers and that no additional licensing is required for standby, management, disaster recovery or hyper-threading. Any increase in core count arising from OIL-approved sizing changes should be handled through a corresponding BOQ/change order.	OIL will review and revert.
269	192	Part-4, Section-II | A3.2 - Windows Server licensing | Windows Server licenses are required to be subscription, transferable to different hardware and mapped to OIL tenant ID.	Please confirm acceptable Microsoft licensing programme/SKU, tenant details, subscription start date and whether Software Assurance/support benefits are required. License portability will be governed by Microsoft product terms; therefore, compliance should be assessed against prevailing OEM licensing rules rather than an unconditional hardware-transfer requirement.	OIL will review and revert.
270	186-187	Part-4, Section-II | 6.1(a)(ii)-(iv) - Backup and recovery | Backup will use OIL Commvault; bidder must rebuild the data lake, conduct restoration drills and prepare an offline backup in cloud or another location.	Please share Commvault version, available capacity, agents/licenses, retention policy, backup window, network bandwidth, immutable/offline target, encryption and required RPO/RTO. OIL may confirm that Commvault licenses, repository capacity and cloud/offsite infrastructure will be supplied by OIL, with bidder providing application-consistent integration and documented recovery procedures.	OIL will review and revert
271	184-186, 192-200	Part-4, Section-II | 6.1 - OT Data Lake | Initial scope is 50,000 tags, scalable to 100,000, with sub-second acquisition, 10-year retention, 150,000 events/sec, 30-day buffering and 500 concurrent connections.	Please provide tag-wise scan rates, change rates, data types, event/alarm volumes, compression assumptions, retention tiers, concurrent query patterns, dashboard refresh rates and historical backfill volumes. Final hardware/software sizing and acceptance should be based on mutually approved workload assumptions and a sizing document.	OIL will review and revert.
272	186, 200	Part-4, Section-II | 6.1(aa), performance metrics ttt-vvv | 50,000 initial tags are specified, but performance metrics require 150,000 inbound events/sec and future capability up to two million streams/tags elsewhere in the requirements.	Please clarify which figures are contractual Day-1 acceptance criteria and which are future scalability statements. Capacity beyond the licensed 50,000 tags/approved Day-1 workload should be treated as optional expansion requiring additional infrastructure and licenses through change control.	Bid-stage sizing shall follow the tender baseline of 50,000 initial OT tags scalable to 100,000, two years of historical migration wherever available, and ten-year online OT retention. Detailed source-wise volumes, growth, scan rates, event loads, retention tiers, storage allocation and migration datasets shall be validated and finalized during Detailed Design.

273	184-186, 200-201	Part-4, Section-II | 6.1(c) - OT system integrations | Fifteen OT/IoT system integrations are priced per system, and the listed KPIs are illustrative/not exhaustive.	Please define each of the 15 integration units, source endpoints, OEM/version, protocol, tag count, locations, network zones, HA topology, data ownership, interface documentation and required write-back. Any additional source, endpoint, protocol converter, tag or KPI beyond the agreed interface catalogue should be paid through the additional-development/change-control mechanism.	OIL will review and revert.
274	186	Part-4, Section-II | 6.1(t) - Source enablement | OIL will enable existing OT systems for OPC UA/equivalent protocols and provide site-level cybersecurity.	Please confirm that OIL will provide operational, licensed and tested read-only interfaces/gateways, required OEM approvals, firewall rules, certificates, service accounts, source-side hardware/software and vendor support before integration starts. Delays or data-quality issues attributable to source readiness should extend milestones and be excluded from LD/SLA.	OIL will review and revert.
275	194	Part-4, Section-II | 6.1(b)(j-k) - Protocol support | A broad protocol list must be supported out of the box without external converters or development.	Please allow protocols to be delivered through OEM-supported native connectors, gateway/interface components or standard adapters included in the offered solution. Acceptance should be based on successful integration of the identified in-scope sources, since requiring every listed protocol natively in the core platform may restrict competition without project benefit.	OIL will review and revert.
276	185-186	Part-4, Section-II | 6.1(k-l), 6.1(ee) - Deliverables and migration | Minimum 30 dashboards, 20 reports and two years of historical data migration from all integrated systems are required.	Please provide dashboard/report complexity categories, page count, user roles, calculation rules, sample formats, historical data volume/format/quality and source extraction mechanism. Please cap included effort to the stated quantities and agreed templates; rework after approved design/UAT and remediation of source-data defects should be handled through change control.	OIL will review and revert.
277	201-204	Part-4, Section-II | 6.2 - IT Middleware and Business Data Lake | Fifteen IT system integrations and two years of historical data migration are included, while source details/parameters are indicative and not exhaustive.	Please provide the definitive application inventory, versions, hosting model, API/database/file interfaces, data volumes, refresh frequency, owners, test environments, security constraints and expected transformations for each of the 15 integrations. New applications, unavailable APIs, source-side changes or extra data objects should constitute a change request.	OIL will review and revert.

278	202-204	Part-4, Section-II | 6.2 - Cloud resources and licensing | IT data lake/middleware will be cloud-based, mainly on Azure, with bidder-provided compute/storage subscriptions for 20 quarters.	Please provide the approved Azure landing-zone architecture, target region(s), network topology, policies, subscription/tenant model, expected data ingress/egress, compute/storage baseline, retention, backup, DR, logging and security-service requirements. Please confirm that consumption beyond the approved baseline will be reimbursed on actuals or processed through change control.	OIL will review and revert.
279	202, 240-241	Part-4, Section-II / SCC | 6.2(k); Cloud Landing Zone requirements | Cloud subscription is to follow Microsoft standard licensing, while OIL has an existing landing zone and bidder may need a separate subscription with connectivity and SSO services.	Please clarify whether resources must be deployed in OIL-owned subscriptions or bidder-managed subscriptions. For security, transparency and exit portability, HPE recommends OIL-owned subscriptions with bidder delegated access. Please confirm that Azure consumption invoices may be passed through at actuals and statutory/OEM price changes will be accommodated.	OIL will review and revert.
280	204-215	Part-4, Section-II | 6.3 - CCC application and mobile app | The scope includes web/mobile application, dashboards, 2D/3D visualization, alerts, workflows, chat/voice/video, AI readiness and integrations across multiple domains.	Please provide prioritized use cases, personas, named/concurrent users, mobile-user count, workflows, dashboard count, 2D/3D asset count, geospatial layers, notification channels, supported mobile OS versions and acceptance criteria. Requirements beyond the agreed baseline backlog should use item K1/K3 or formal change control.	OIL will review and revert.
281	104-105, 204-215	Part-4, Section-II | 4.25 and 6.3 - Intellectual property/source code | All source code, models, workflows, dashboards and customizations are to become OIL intellectual property with rights to modify or replicate.	Please clarify that OIL ownership applies to project-specific custom code, configurations and deliverables paid for under the contract. Bidder/OEM pre-existing IP, reusable frameworks, libraries, tools, product source code, know-how and third-party components should remain with their respective owners, with OIL receiving the necessary perpetual/use license for the deployed solution.	OIL will review and revert.
282	204-215, 230-232	Part-4, Section-II / SCC | 6.3 and Inspection/Handover provisions | OIL may inspect source repositories, AI/ML artefacts and training data, and complete handover/no-retention is required at exit.	Please confirm that inspection and handover will be subject to confidentiality, security and third-party license restrictions and will exclude bidder/OEM proprietary product source code and data not owned by OIL. Secure escrow or controlled review may be used where direct source disclosure is contractually restricted.	OIL will review and revert.

283	219-221	Part-4, Section-II | 8 - Cybersecurity requirements | Broad compliance is required with IEC 62443, ISO 27001, MeitY, CERT-In and OIL policies.	Please share the applicable OIL cybersecurity policies, security architecture, hardening standards, SOC/SIEM integration, log-retention requirements, approved cryptography, vulnerability-remediation timelines and responsibility matrix. Compliance should be limited to standards applicable to each component and to the versions/policies provided before design freeze.	OIL will review and revert.
284	219-221, 261-263	Part-4, Section-II / Section-IV | 8 and H1 - VAPT | One pre-go-live and annual VAPT are required, payable on actuals, but scope includes IT Data Lake, OT Data Lake, CCC application, visualization platform and mobile app.	Please define assets, IPs/URLs, API count, mobile platforms, test type, test window, retest count, reporting standard and CERT-In empanelment requirement. Findings caused by OIL/third-party systems should be owned by the respective party and should not delay bidder acceptance where bidder components meet agreed remediation criteria.	OIL will review and revert.
285	221-223	Part-4, Section-II | 9 - Implementation and delivery schedule | Mobilization, blueprint, infrastructure, integrations, UAT and go-live must be completed within 10 months.	Please provide site-readiness dates, access windows, approved drawings, power/HVAC/civil permissions, network/firewall availability, source-system readiness, landing-zone readiness, data owners and third-party OEM support commitments. The schedule should start after fulfilment of mutually agreed prerequisites, and customer/third-party delays should result in corresponding time extension without LD.	OIL will review and revert.
286	221-223	Part-4, Section-II | 9 - Acceptance and dependency management | Milestones depend on OIL approvals, source access, UAT and sign-offs, but approval timelines are not defined.	Please include a responsibility matrix and deemed-approval mechanism: OIL comments/acceptance within 7 working days of submission, consolidated once per deliverable; absence of response to constitute acceptance. Rejection should identify objective non-conformance against approved criteria, and retesting caused by changed requirements should be chargeable.	OIL will review and revert.
287	215-218, 244-249	Part-4, Section-II / SCC | 7 and SLA 4 - AMC/Hypercare | Five-year AMC includes 99.95% uptime, severity-based response/resolution and penalties.	Please define service hours, support locations, monitoring demarcation, planned-maintenance windows, uptime formula and component-wise measurement. Exclusions should include OIL network/power/cloud, source systems, third-party products not supplied by bidder, force majeure, approved maintenance, customer-caused incidents and delays awaiting access/approval.	OIL will review and revert.

288	247-249	Part-4, Section-III | SLA 4.4 - Penalties | Performance penalty applies for each SLA, with incremental penalties, capped at 7.5% of quarterly contract value.	Please confirm that all SLA penalties in a quarter are cumulative but collectively capped at 7.5% of the quarterly charges for the affected service/component, are the sole financial remedy for the same event, and will not be duplicated with LD, risk purchase or other deductions. Penalty should apply only to charges attributable to the impacted service.	The applicable GCC/SCC, payment, SLA, liability and commercial provisions shall continue to apply.
289	247-249	Part-4, Section-III | SLA 4.4 - Severity and resolution | P1 response is 1 hour and resolution 4 hours; other severities also have fixed resolution times.	Please allow restoration/workaround within the target resolution time and permanent root-cause fix through a mutually agreed problem-management plan, especially where OEM engineering or third-party dependencies are involved. Severity classification should be mutually validated against actual business impact.	The applicable GCC/SCC, payment, SLA, liability and commercial provisions shall continue to apply.
290	216-218, 247	Part-4, Section-II / SCC | 7 - AMC manpower; SLA 4.4(7-8) | Absence of AMC/Hypercare resources attracts Rs.10,000 per day per person, while exact staffing/attendance model is not fully quantified in the price schedule.	Please confirm the required roles, quantities, locations, shift coverage, working days, leave/backup arrangement and whether remote/NOC support is acceptable. Penalty should apply only where the committed minimum shift position remains unfilled after the agreed substitution grace period, not for approved leave or equivalent replacement.	OIL will review and revert.
291	231-232	Part-4, Section-III | Product Lifecycle & Long-Term Support Compliance | All components must not approach EoS/EoSL during implementation and for at least five years after go-live; expected future announcements are also prohibited.	Please amend this to require that products are orderable and under OEM support on the bid date, with support coverage for the contract term. Future OEM lifecycle announcements outside bidder control should be addressed through equivalent/superior replacement or upgrade under mutually agreed commercial terms, rather than unconditional no-cost replacement.	OIL will review and revert.
292	76, 31-40	Part-4 Section-I / Part-3 BEC | GCC 24; BEC 3.2.2 | Only petty support services may be subcontracted, while the tender permits consortium/JV and requires multiple specialist OEM solutions.	Please permit subcontracting of specialized civil, AV, cybersecurity, cloud, application and integration work to qualified partners/OEMs with OIL approval, while the prime bidder retains full contractual responsibility. This is necessary for a turnkey multi-technology programme and will enable use of OEM-certified specialists.	OIL will review and revert.

293	261-263	Part-4, Section-IV | Table B - Payment Terms | Payments for hardware/infrastructure are milestone-linked, with only partial payment at delivery and significant amounts deferred to installation/UAT/hypercare.	Please allow at least 70% of hardware/software/license value upon delivery and inspection at site, 20% upon installation and 10% upon acceptance. Subscription/cloud charges should be paid quarterly in advance or as per OEM billing terms. This will align cash flow with irrevocable OEM procurement and reduce financing loading in the L1 price.	OIL will review and revert.
294	261-263	Part-4, Section-IV | Table B, items 1-6 | Mobilization and blueprint payments are percentages of Implementation Cost, while subsequent line-item payments may cause ambiguity/double counting.	Please provide a worked payment example and confirm the exact allocation of the 5% mobilization, 5% blueprint and 5% hypercare holdback across BOQ sections. The cumulative milestone payments for each BOQ item should equal 100% without overlap or unrecoverable balance.	OIL will review and revert.
295	254-263; Commercial template	Part-4, Section-IV / Proforma-B | SOR/BOQ and Price Bid mapping | The RFP price-evaluation formula on page 49 uses categories A-F that do not match the commercial template categories A-K; commercial lines include lump-sum Any Other Item rows and on-actual items.	Please confirm that evaluation and award will be based on the attached Proforma-B categories A-K and their break-up sheets. Please issue a corrected price-evaluation formula and clarify whether on-actual quantities K1-K3 and H1 are included in L1 evaluation and contract value/performance security.	Please refer to amendment to be published
296	48-50; Commercial template note 5	Part-3 / Proforma-B | BEC 6.2-6.18 and Price Bid Note 5 | All items must be quoted; zero/NIL is deemed included, while optional/on-actual quantities and broad Any Other Item lines are also present.	Please confirm that a bidder may enter zero where an item is genuinely not required because it is included technically within another offered line, with a clear cross-reference, without being treated as non-responsive. Also confirm that payment for on-actual items will be based on actual consumption up to the estimated quantity.	Clarified. Bidder can quote accordingly.
297	3-4	Part-1 | 3.1 and 3.4 - Pre-bid query deadline | Clause 3.1 states representative details and queries by 21 August 2026, while clause 3.4 states that queries must reach OIL by 20 August 2026.	Please confirm the valid final deadline for submission of pre-bid queries and representative details. Considering the breadth of the 343-page turnkey RFP and the pre-bid meeting on 24 August 2026, kindly accept queries submitted up to 21 August 2026.	Accepted

298	2-3, 41, 221-223	Part-1 / Part-3 / Part-4 Section-II | Mobilization and implementation timeline | Mobilization is 30 days from LOA and implementation is 10 months, covering four physical sites, cloud/OT data lakes, integrations and application development.	Please confirm that the 10-month implementation clock will commence after site access, approved blueprint, advance/initial milestone payment, network/cloud/source readiness and delivery permissions are available. Delays caused by approvals, import/customs, OIL dependencies or third-party OEMs should extend the schedule on a day-for-day basis.	OIL will review and revert.
299	74-75, 247	Part-4, Section-I / Section-III | GCC 16, 19 and SLA/LD | Aggregate liability is capped at 100% of contract price, while LD, performance security, risk purchase, indemnities and SLA deductions may overlap.	Please confirm that the bidder's aggregate liability, including LD, SLA penalties, risk purchase and all other claims, will not exceed 100% of contract value, except only for the expressly stated exclusions. LD/SLA deductions for the same underlying event should not be duplicated, and consequential/indirect losses remain excluded.	The applicable GCC/SCC, payment, SLA, liability and commercial provisions shall continue to apply.
300	93-95	Part-4, Section-I | GCC 44.9 - Termination for convenience | OIL may terminate for any other reason with 30 days notice and pay only for services up to termination.	Please provide payment for all accepted work, delivered/ordered non-cancellable hardware and licenses, committed cloud/subscription charges, reasonable demobilization and transition costs upon termination for convenience, since these are unavoidable third-party commitments incurred for OIL.	OIL will review and revert.
301	106	5.1 | b) | The existing layout configuration for the WTC Delhi site is presented in the following section	Please share the Auto CAD Layout to desing the Control Room. Similarly we need the AutCAD Layout for the other 3 sites also.	OIL will review and revert.
302	107	5.1.1 | Indicative Control room BOQ | I - A1. SITC of Civil & Interiors including Electrical, Fire Alarm and Suppression, Redundant UPS, PAC/HVAC, Lighting, Automation, Public Address System and Rodent Control system (Area of 65 X 29 X 8.85 feet)	The height mentioned in 8.85 Ft. (Approx. 2.69 Meters) This is too low as we need at least 1M stand to put the Displays so that it is visible to the people.	OIL will review and revert.

303		I - A1. SITC of Civil & Interiors including Electrical, Fire Alarm and Suppression, Redundant UPS, PAC/HVAC, Lighting, Automation, Public Address System and Rodent Control system (Area of 65 X 29 X 8.85 feet)	Please clarify where we need to plan the UPS, Electrical Rooms and Server Room for the CCC. Also please clarify from where we will give the required input power.	OIL will review and revert.
304	107	5.1.1 | Indicative Control room BOQ | II - A2. SITC of Active Curved LED Display with P0.93 HDR, COB Flip-Chip with Top Protection, anti-humidity, anti-scratch and anti-collision as per the design - 16.8mtrs x 2.7mtrs Tolerance +/- 0.2	The Specification calls for 2.7 Meters Height but as explained in the point I- A1, there is not sufficient height. So request you to re-look at the LED Display dimension requirement	OIL will review and revert.
305	107	5.1.1 | Indicative Control room BOQ | II - A2. SITC of 32-point Multi-Touch Overlay Size 16.8mtrs x 2.7mtrs Tolerance +/- 0.2m	We feel it is not feasible to access the multi-touch overlay at 2.7 Mtrs height so request you to re-look at this requirement	The offered solution shall meet or exceed the specified control-room, AV, display, KVM, HDR, multi-touch, 3D visualization and interoperability requirements. Equivalent or superior configurations may be proposed only where permitted, supported by OEM documentation and demonstrated during testing.
306	107	5.1.1 | Indicative Control room BOQ | II - A2. SITC of Computing Rack servers to access Dashboards and Applications -15 Nos.	Please suggest the server room area to host these servers.	OIL will review and revert.
307	110	5.1.2 | Detailed Technical & Functional Requirements | A1 - t. The bidder shall provide 30 TR of PAC/VRF cooling for the CCC areas including the server/UPS room, configured N+1 with automatic lead–lag sequencing, and continuous 24×7 operation	Please confirm the area for Server / UPS rooms. Please share the calculations for 30 TR PAC / VRF. We feel bidder needs to design the cooling tonnage based on his solution. Please suggest. Also please share the Location of placing the Outdoor Units for the VAV /VRF.	OIL will review and revert.

308	111	5.1.2 | Detailed Technical & Functional Requirements | A1 - V. The bidder shall provide a modular online UPS of not less than 48 kVA, with N+1 redundancy, dual AC input, dual output distribution, and integrated static + maintenance bypass. The	Please share the calculations for 48 KVA. We feel bidder needs to design the UPS Rating based on his solution. Please suggest.	OIL will review and revert.
309	113	5.1.2. | Video Wall, AV Infrastructure, VC, and other IT Hardware Components | II A2.8 Refresh Rate :7680 Hz	Request to consider a minimum refresh rate of 3840 Hz or higher, which is widely accepted as the industry standard for professional indoor fine-pitch LED displays and provides excellent visual performance, flicker-free viewing, and broadcast compatibility while enabling wider OEM participation.	No Change; To be guided by tender terms;
310	113	5.1.2. | Video Wall, AV Infrastructure, VC, and other IT Hardware Components | II A2.18 Protection and Surface Treatment :Anti-Scratch, Anti-Dust, Anti-Moisture, Anti-Collision, Anti-Glare, Anti-Static, Anti-Moiré, Front Water-Proof	IP50 is an established industry standard for indoor control room and command center applications and adequately ensures protection against dust and operational wear. Request you to please consider the same.	No Change: To be guided by Tender Terms
311	113	5.1.2. | Video Wall, AV Infrastructure, VC, and other IT Hardware Components | II A2.19 BIS and Low Blue light / Eye Comfort Certifications	Request to mention BIS to be provided and Low Blue Light/Eye Comfort certification optional . Eye Comfort certifications vary across manufacturers and may unnecessarily restrict competition. Request to consider the same.	OIL will review and revert
312	114	5.1.2. | Video Wall, AV Infrastructure, VC, and other IT Hardware Components | II A2.26 Number of Inputs: Required number of Inputs to achieve Pixel-to-Pixel Resolution in Stereoscopic 3D & HDR10+ and additional 20% spare input ports	LED Controller is connected to LED Tiles only and take input from IPKVM decoders and Oil India input sources will only directly connected to IPKVM Encoders so additional spares in LED Controller are not required Request you it to change: Required number of Inputs to achieve Pixel-to-Pixel Resolution in Stereoscopic 3D & HDR10+	No Change: To be guided by Tender Terms

313	114	5.1.2. | Video Wall, AV Infrastructure, VC, and other IT Hardware Components | II A2.27 Number of Outputs (RJ45/ OFC): Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode and additional 10% for Spare Output ports	LED Controller is connected to LED Tiles only and take input from IPKVM decoders and Oil India input sources will only directly connected to IPKVM Encoders so additional spares in LED Controller are not required Request you it to change: Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode	No Change: To be guided by Tender Terms
314	114	5.1.2. | Video Wall, AV Infrastructure, VC, and other IT Hardware Components | II A2.29 Features: - Hot-swappable input and output cards - Frame synchronization: image should be played smoothly, without any stuck, frame loss, tearing or piercing - Should supports HDR10+ and Stereoscopic 3D Function - Auto monitoring and fault alarms should be available	Request you to remove Hot-swappable input and output cards which is specific to one OEM only so that other established OEMs can participate	OIL will review and revert
315	116	5.1.2. | SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy | II A4.1.6 True Redundancy and High Availability: The True Redundancy and High Availability (HA) framework should ensure that the system remains fully operational under any fault condition — whether network, hardware, power, or controller-related: 1. Controller-Level Redundancy – dual synchronized controllers (active/standby). 2. Network-Level Redundancy – dual switches, VLAN separation, and redundant fiber paths. 3. Power-Level Redundancy – dual independent power supplies for each node. 4. Device-Level Redundancy – duplicate TX/RX units for critical feeds and displays.	These specs are one OEM Specific which makes other OEM participation rigid request you to change the specs as per below: True Redundancy and High Availability: The True Redundancy and High Availability (HA) framework should ensure that the system remains fully operational under any fault condition — whether network, hardware, power, or controller-related: 1. Controller-Level Redundancy – dual synchronized controllers (active/standby). 2. Network-Level Redundancy – dual switches, VLAN separation 3. Power-Level Redundancy – dual independent power supplies for controller node	OIL will review & revert

316		SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy | A 4.1.10 Resolutions: 3840 x 2160p 60Hz or Higher	The specification does not clearly mention the required bandwidth for transmission of true 4K signals. If the video transmission is limited to 1 Gbps, the 4K signal would require significant compression (approximately 18:1 for an uncompressed 4K60 4:4:4 signal). Such high compression, followed by scaling at the output, may result in loss of image quality, distortion, and degradation of fine visual details.We therefore request that the tender specification be suitably clarified/amended to ensure that the proposed system supports true 4K @ 60 Hz, 4:4:4 transmission with adequate bandwidth, without compromising the required video quality.	The proposed solution shall provide end-to-end 4K UHD pixel-to-pixel visualization with visually lossless image quality and with end-to-end latency not adversely affecting operator usability.
317			For 4K @ 60 Hz with 4:4:4 chroma sampling, the uncompressed video bandwidth is approximately 18 Gbps. Accordingly, we request that the encoders and decoders be specified to support at least 20 Gbps video transmission over fibre, to ensure reliable transmission of true 4K signals without compromising image quality.	OIL will review and revert.
318	118	5.1.2. | SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy | II A4.1.30 Display: Minimum 10.1" LCD touch display, resolution 1280x800 @60Hz Contrast: min. 500:1, typical 700:1 Brightness: min. 300 cd/m2, typical 400 cd/m2	These specs are one OEM Specific which makes other OEM participation rigid request you to change the specs as per below: Display: Minimum 10.1" LCD touch buttons to control layouts	OIL will review & revert
319	118	5.1.2. | SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy | II A4.1.31 Source Control: The touch display should support, multi touch control of any connected source with zoom in zoom out gestures etc.	These specs are one OEM Specific which makes other OEM participation rigid request you to change the specs as per below: Source Control: The touch buttons should support of control layout of any connected source	The intent of the clause is to enable operators to interact with visualized content and connected sources through a touch-enabled interface supporting standard gestures such as zoom, pan, navigation, source selection, and other appropriate multi-touch interactions where supported by the source application and system architecture. Bidders may propose equivalent or superior solutions. However, the functionality for multi-touch interaction and gesture-based control of visualized content shall remain available as specified in the tender.

320	118	5.1.2. | SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy | II A4.1.32 Environment Control: The Operator Console should provide customizable layout for environment control for controlling lights, HVAC, doors, height adjustments of consoles etc.	These specs are one OEM Specific which makes other OEM participation rigid request you to change the specs as per below: Environment Control: The Operator Console should provide customizable layout	OIL will review & revert
321	118	5.1.2. | SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy | II A4.1.35 Programmable Touchscreen Display: - Operators should be able to create custom layouts with soft-keys and role-based menus. - Operators shall, via a role-based desktop interface, be able to preview, route authorized sources/layouts between their workstation, the video wall and other room displays; securely share windows - Operator Consol should dynamically adapt to user profiles, reflecting permissions and assigned sources. - Operator Consol should support real-time feedback for source selection, wall presets, and communication channels.	These specs are one OEM Specific which makes other OEM participation rigid request you to change the specs as per below: Programmable Operator Console: - Operators should be able to create custom layouts with soft-keys and role-based menus. - Operators shall, via a role-based desktop interface, be able to preview, route authorized sources/layouts between their workstation, the video wall and other room displays; securely share windows - Operator Consol should dynamically adapt to user profiles, reflecting permissions and assigned sources. - Operator Consol should support real-time feedback for source selection, wall presets, and communication channels.	OIL will review & revert
322	125	5.1.2 | SITC of a multi-user 3D stereoscopic immersive simulation system on an LED Wall, equipped with 3D tracked active stereoscopic glasses and hand-tracked controllers, designed for geological exploration and analysis, training and simulation and digital twins presentation. The system shall support a wide range of industry-leading 3D CAD and visualization software without requiring file conversions, including Petrel for petroleum exploration, ArcGIS and more | A7.3 Hand-Tracking Controllers Six-DOF controllers with optical tracking (≥ 200 fps), Each user	Please clarify the area of tracking i.e. in front of the screen, whether OIL requires Hand tracking, eye tracking & Head tracking too, which all application this tracking needs to be done, please detailed out the Application version and model details for tracking , whether simaltanous tracking is required by multiple persons…if yes, can the application support the same?	OIL will review and revert.

		should have their own tracked input device		
323	125	5.1.2 | SITC of a multi-user 3D stereoscopic immersive simulation system on an LED Wall, equipped with 3D tracked active stereoscopic glasses and hand-tracked controllers, designed for geological exploration and analysis, training and simulation and digital twins presentation. The system shall support a wide range of industry---- | A7.4 Software Compatibility Layer Visualize 3D models and GIS datasets from applications such as Petrel, ArcGIS, etc	1. As we understand both arc GIS and Petrel 3D sterescopic data are not datasets ,petrel being an intrepretation software for sub surface data , both rendering have got multiple layer of shader and geometry entirely different, this RFP application clause asks for specific middleware which can directly supports the petrel and arGIS data to be viewed in 3D , both these applications in there base visualization supports 3D, if any application layer to be introduced over these applciations, first - it has to be certified by OEM, as OEM's of the Petrel and arGIS have got new updates on the shader model, currently lot of middle layer 3D application are not supported at the moment. Please clarify .	OIL will review and revert.
324	125	5.1.2 | A7.4 Software Compatibility Layer Visualize 3D models and GIS datasets from applications such as Petrel, ArcGIS, etc	2. We will need to know the hardware details , where in the petrel and arcGIS are getting hosted? As both these applciations are to be viewed in true scale pixel-to -pixel on LED videowall, the graphics of these applciations need to generate that much pixel. Petrel being G&G applciation, need to understand its licensing schema as G&G applciation security protocols will be different and in this situation as per cybersecurity clause also needs to be complied. Please suggest.	OIL will review and revert.
325	125	5.1.2 | A7.5 Networking & Collaboration Multi-site VR via low-latency WAN links • Secure VPN with TLS 1.2 or later encryption • Real-time positional audio and spatial sound	Please clarify which all application to be used for this, which all locations the similar applications are installed and is there any existing VPN tunnel to execute this collaboration, which all codec application supports for the real time spositional audio & spatial sound.	OIL will review and revert.

326	125	5.1.2 | A7.6 Simulation & Digital Twin Integration Support for real-time physics engines (PhysX, Havok or equivalent) with sub-millisecond update cyc	Please explain the Digital twin application requrienment, is it for production based or prediction of maintainence,need very specific details for the data layering to provide the correct digital twin solution. Secondly,what all utilities are we going to have with Physics Engine in the application here, the physiscs engine's are used for advanced collision detection , it may be newtonian physics or material based physics, is OIL having such an application wherein OIL do engineering validation in collission envionrment, if yes, than need to know the details of the applciation / version & other details for the right physics engine to be provided.	The CCC Platform shall provide the capability to access, visualize and navigate Digital Twin information through an embedded user experience within the CCC environment as specified in the tender through an appropriate integration approaches. The bidder shall factor all licenses, software components, interfaces, connectors, viewers, and associated capabilities required to meet the Digital Twin-related functionality specified under the current Phase-1 scope of the tender. The proposed solution shall additionally be scalable and capable of accommodating future expansion of Digital Twin functionality, models, assets, users, and licenses without major architectural changes.
327	125	5.1.2 | A7.7 Hardware Requirements Workstation: Intel Xeon (W-3400/3500 CPU on W790 Chipset) or AMD Ryzen Threadripper(RO 7000 WX CPU on WRX90 Chipset) • GPU: NVIDIA RTX A6000 (48 GB GDDR6) x 2nos or equivalent• RAM: 128 GB DDR4 ECC• Storage: NVMe SSD 2 TB (OS + cache), secondary HDD 8 TB for data	1. We feel the workstation specification is mismatched as the RAM DDR4 is not compatible with this series of Intel/AMD CPU, it should be DDR5 2.Secondly, the two nos. Nvidia RTX 6000 02 cards will require dual socket CPU for true resolution output as requried for this workstation oputput to display on LED Videowall . Please clarify. 3. Request to clarify as this workstation role in the entire graphics pipeline and based on the same the specifications has to be amended to make it compatible as per the other specifications of the LED videowall and other applications mentioned We feel the specifications doesn't suffice for the overall resolution of the wall and the application requrienment , the RFP doesnot mentions about the graphics output from the Image generation,if this is not correctly mapped to overall visualization system, the resultant output can be flawed	OIL will review and revert.
328	125	5.1.12 | A7.9 Operational Paradigm Plug-and-play operational paradigm enabling VR model viewing within minutes of installation without programming requirements	We request to detaile out the applciation and its usage within the VR paradigm , so that accordingly the application can be installed, as VR middlewares which support the VR visualization other VR peripherals need to configure ina certain way for different applications, for example, for 3D CAD the settings will be different, for GIS the settings will be different, for Intrepretation of Sub Surface data the settings will be different.	OIL will review and revert.

329	126	5.1.12 | A7.11 Application Streaming Technology Real-time streaming technology delivering host application graphics to multiple VR rendering clients with encrypted data transmission	We request you to expalin the other location VR host details, wherein this streaming of VR application to happen, will it be in 2D or 3D ,which protocol is allowed in this scenario, as earlier specs mentions about VPN and various security requrienments. For the Real-Time streaming - is to be cloud driven or non-cloud , is it is native common CAD/ Image file /attributes file on all collab WS with only Viepoint & motion data transmission? Since the RFP mentions about tracking , how this is handled -tracking and interaction in collaboration envrinoment, eg. VR Wall setup vs Head device VR??, unless all the other location host hardware's are detailed out & OIL functional requrienments and use case are cleared, the solution cannot be designed correctly	OIL will review and revert.
330	126	5.1.12 | A7.12 Data Conversion Requirement Zero data conversion requirement; operates directly with existing 3D models without file modifications or application changes	We understand this is possible for certain version of application and compatibility pre certified and tested. So request to detail out the applciation and its data format and size , so that accordingly the application can be installed. Also Is this Only Native Model Import or Auto import & model optimization is ok... Max model size ?? Please explain the tetrahedron and polygon resolution , will this application do or the 3D application which OIL is using it has internal optimization engine, need the correct details to desing the solution.	OIL will review and revert.
331	126	5.1.12 | A7.16 Resolution Support Matrix Ultra-high-resolution support up to 8K (7680 x 4320) with seamless multi-projector / multi-display image fusion and pixel-perfect accuracy	We understand the specification has not covered for the LED videowall resolution. The LED Videowall Resolution having pixel size of 0.93mm and size of 16.8 mtr X 2.7 mtr is approx 50 Million+ , whioch is very high than 8K, these specifications, contradicts the same, as having 8K resolution output from application will not suffice pixel to pixel LED videowall display, for true pixel to pixel visualization it will be window within the entire videowall, stretching this input to videowall will only stretch the display while information of data will be missing. We request you to relook into the same.	OIL will review and revert.
332	126	5.1.12 | A7.18 LED wall Integration Large-format LED Wall system integration with multi-display cluster support and seamless bezel compensation, edge blending capabilities	We feel the specifications is not clear with Cluster Displays. Please explain this point as application may support Cluster /multi display channels, than the specifications of the LED videowall controller and other specifications for the GPU doesn't sum up the requried resolution of the LED videowall .	OIL will review and revert.

333	127	5.1.12 | A7.29 Voice Communication Integration Integrated VoIP communication with mute/unmute controls for seamless team interaction and audio quality optimization	Please clarif y the requirement as specification does not cover the VoIP exchange details and integration required.	OIL will review and revert.
334	140	5.2.1 | Indicative Control room BOQ | I- B1 SITC of Civil & Interiors including Electrical, Fire Alarm and Suppression, Redundant UPS, HVAC, Lighting, Automation, Public Address System and Rodent Control system (Area of 70 X 35 X 7.5 feet)	Please share the Auto CAD Layout to desing the Control Room.	OIL will review and revert.
335	140	5.2.1 | Indicative Control room BOQ | II- B2 SITC of Active Curved LED Display with P0.93 HDR, COB Flip-Chip with Top Protection, anti-humidity, anti-scratch and anti-collision as per the design - 9mtrs x 2mtrs Tolerance +/- 0.2m	The Specification calls for 2.0 Meters Height but as explained in the point I- B1, 7.5 ft (2.2 Meters)there is not sufficient height. So request you to re-look at the LED Display dimension requirement	OIL will review and revert.
336	143	5.2.2 | Detailed Technical & Functional Requirements | B1 -s The bidder shall provide 30 TR of PAC/VRF cooling for the CCC areas including the server/UPS room, configured N+1 with automatic lead–lag sequencing, and continuous 24×7 operation. The PAC/VRF system shall integrate with the room's automation for alarm, sequencing, humidity control, and environmental compliance as specified.	Please confirm the area for Server / UPS rooms. Please share the calculations for 30 TR PAC / VRF. We feel bidder needs to design the cooling tonnage based on his solution. Please suggest. Also please share the Location of placing the Outdoor Units for the VAV /VRF.	OIL will review and revert.
337	143	5.2.2 | Detailed Technical & Functional Requirements | B1 -u The bidder shall provide a modular online UPS of not less than 40 kVA, with N+1 redundancy, dual AC input, dual output distribution, and integrated static + maintenance bypass. The UPS shall ---	Please share the calculations for 40 KVA. We feel bidder needs to design the UPS Rating based on his solution. Please suggest.	OIL will review and revert.

338	145	5.2.2. | Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components | II B2.7 Refresh Rate :7680 Hz	Request to consider a minimum refresh rate of 3840 Hz or higher, which is widely accepted as the industry standard for professional indoor fine-pitch LED displays and provides excellent visual performance, flicker-free viewing, and broadcast compatibility while enabling wider OEM participation.	No Change; To be guided by tender terms;
339	145	5.2.2. | Video Wall, AV Infrastructure, VC, and other IT Hardware Components | II B 2.17 Protection and Surface Treatment :Anti-Scratch, Anti-Dust, Anti-Moisture, Anti-Collision, Anti-Glare, Anti-Static, Anti-Moiré, Front Water-Proof	IP50 is an established industry standard for indoor control room and command center applications and adequately ensures protection against dust and operational wear. Request you to please consider the same.	No Change: To be guided by Tender Terms
340	146	5.2.2. | Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components | II B 2.19 BIS and Low Blue light / Eye Comfort Certifications	Request to mention BIS to be provided and Low Blue Light/Eye Comfort certification optional . Eye Comfort certifications vary across manufacturers and may unnecessarily restrict competition. Request to consider the same.	OIL will review and revert
341	175	5.4.2. | SITC of 120" Professional Display 24/7 operation with Heavy duty mount | II D 2.8 Refresh Rate :7680 Hz	Request to consider a minimum refresh rate of 3840 Hz or higher, which is widely accepted as the industry standard for professional indoor fine-pitch LED displays and provides excellent visual performance, flicker-free viewing, and broadcast compatibility while enabling wider OEM participation.	No Change; To be guided by tender terms;
342	176	5.4.2. | SITC of 120" Professional Display 24/7 operation with Heavy duty mount | I D2.2 Protection and Surface Treatment :Anti-Scratch, Anti-Dust, Anti-Moisture, Anti-Collision, Anti-Glare, Anti-Static, Anti-Moiré, Front Water-Proof	IP50 is an established industry standard for indoor control room and command center applications and adequately ensures protection against dust and operational wear.	No Change: To be guided by Tender Terms

343	176	5.4.2. | SITC of 120" Professional Display 24/7 operation with Heavy duty mount | II D 2.18 BIS and Low Blue light / Eye Comfort Certifications	Request to mention BIS to be provided and Low Blue Light/Eye Comfort certification optional . Eye Comfort certifications vary across manufacturers and may unnecessarily restrict competition	OIL will review and revert
344	326-27	2.7.1.9 | The Video Wall solution should comply with relevant international standards, including: | The Video Wall solution should comply with relevant international standards, including: •ISO 9001:2015 – Quality Management System •ISO 45001 – Occupational Health & Safety Management System (or equivalent) •ISO 14001:2015 – Environmental Management System (or equivalent)	Request to consider following certification so as to protect sensitive operational and business information from cyber threats, unauthorized access, data breaches, and system compromise. •ISO 9001:2015 – Quality Management System •ISO 27001:2022 – Information Security Management System •ISO 45001 – Occupational Health & Safety Management System (or equivalent) •ISO 14001:2015 – Environmental Management System (or equivalent)	No Change: To be guided by Tender Terms
345	5	Furniture and Fixture	To the best of our knowledge there is only One (1) Company in India who is having LCA & EPD for Control Desks, designer metal ceilings and metal panelling as they are the manufacturers of all above components. This EPD & LCA clause restricts both Interior Solution Providers (who do not manufacturer the Control Desk) & also unfair to the Control Desk Manufacturer (who do not operate in the area of Turn Key Interior Solution) We request you to allow Greenguard Certificate too, Products that have achieved GREENGUARD Certification are scientifically proven to meet some of the world's most rigorous third-party chemical emissions standards, helping to reduce indoor air pollution and the risk of chemical exposure.	No change, to be guided by tender terms
346	31	Part-3 | Bid Evaluation Criteria - Technical Evaluation Criteria | 3.1	The CCC Application and the OT Data Lake are the functional core of this project and carry a 70-month support obligation, yet OEM assurance under Clause 3.1 is limited to hardware items. We request OIL to extend an equivalent assurance to both software layers. We request that bidders also submit, from the OEM of each offered software platform, a letter confirming MAF to offer the product under this tender, back-to-back support for the full contract period and no End-of-Support or End-of-Life during the contract period. We further request such letters be permitted on a non-exclusive basis, so that a single OEM may	No change, to be guided by tender terms

			support multiple bidders and competition is not restricted.	
347	201	Part-4 Section-II | SOW - IT Middleware & Business Data Lake setup | 6.2.i	To enable bidders to propose an appropriately sized and comparably priced solution across the integrated scope, we kindly request OIL to provide the following details: (a) expected business/IT data volume - initial data size (TB) and estimated annual growth - for the both OT & Business Data Lake (b) indicative volume and retention period for unstructured and multimedia data (documents, images and video), including drone surveillance and video analytics content referenced at Pages 202–203, and whether such media storage falls within the scope of item F5 (c) retention duration envisaged for business data (the 10-year retention is defined only for the OT Data Lake) (d) the number of dashboards and standard reports expected from the CCC Application (a minimum of 30 dashboards and 20 reports is specified only for the OT Data Lake (e) available interface specifications / API documentation for the IT systems listed at Page 203, including data formats and expected refresh frequencies; and (f) expected concurrent web users for the CCC Application, in addition to the 55 users listed at Page 215. Accurate volumetrics will ensure uniform sizing assumptions across all bidders and enable OIL to receive comparable offers	Please refer to amended clause to be published on Cloud infra;
348	211	Part-4 Section-II | SOW - CCC Application, Detailed Technical Requirements | 6.3(b) - Data and Analytics Engine	Section 6.1 establishes a dedicated OT Data Lake with a built-in time-series data archive, advanced retrieval and 10-year retention (Pages 184–200), and Clause 6.3(a).I requires the CCC Application to ingest data from that OT Data Lake. We note that the requirement to store time-series data is nevertheless repeated at Page 211 (inbuilt time-series historian), at Page 210 ("store data in secure time-series and relational databases"; "store sensor and visualization data in time-series and document-oriented databases"), at Pages 211–212 ("implement hot/warm/cold lifecycle management & retention policies; store time-series, video, and associated metadata"), and in the Business Data Lake scope at Page 202. Maintaining separate	For the CCC, OT Data Lake shall serve as the single system of record for OT time-series data

			archives with independent lifecycle, retention and tiering for the same OT tags would multiply storage, licensing and administrative cost for OIL with no functional gain, and would create inconsistent versions of the same operational record. We therefore understand that the OT Data Lake under Section 6.1 shall serve as the single system of record for OT time-series data, with the CCC Application consuming that data through secure APIs and maintaining only such transient caching as is necessary for dashboard responsiveness, and the Business Data Lake holding only business/IT time-series not sourced from OT systems. We further understand that the advanced retrieval modes listed at Page 211 may be executed within any component of the proposed architecture and surfaced through the CCC Application, and that functionally equivalent retrieval capability offered under different nomenclature by the proposed OEM shall be treated as compliant. Kindly confirm if our understanding is correct.	
349	207	Part-4 Section-II | SOW - CCC Application, Detailed Technical Requirements | 6.3(a) III (j), (k), (l)	Clause 6.3(a) III, sub-clauses (j), (k) and (l) at Page 207 require the CCC application to allow zoom, pan and rotate with smooth 3D rendering, to support simulation overlays for performance analysis, and to facilitate digital walkthroughs for remote monitoring, collaboration and incident response, while the same capability appears at Page 211 as "3D Rendering" marked as a requirement that should support future integration. Immersive and photo-realistic 3D of the plant is separately provided for under the control room scope at A6.19 and A7, Pages 123 and 125. To keep the two clauses consistent, we kindly request OIL to confirm that the requirements at sub-clauses (j), (k) and (l) are met by interactive geospatial and schematic visualisation with pan, zoom and rotate over asset models made available by OIL, together with embedding of the Digital Twin or 3D viewer referred to at Pages 214–215 where such models exist, and that authoring of 3D models, creation of navigable 3D environments, and photo-realistic rendering inside the CCC application is a future integration as already stated at Page 211.	The CCC Platform shall be capable of integrating with and embedding available Digital Twin models, 3D asset models, or equivalent visualization models

350	214	Part-4 Section-II | SOW - CCC Application, Detailed Technical Requirements | 6.3(b) - | Enablement for Design Digital Twin functional requirements | Sub clauses b., c., d.	The section is titled "Enablement for Design Digital Twin", and the related 3D Rendering requirement at Page 211 is marked "(Should support future integration)". The Current State Overview (Pages 101–102) indicates no existing 3D model estate or engineering-document repository, and the Schedule of Rates (Pages 255–261) carries no line item for creation or population of 3D models or tagged engineering data. We further request OIL to indicate whether a structured, tagged engineering data and document repository presently exists within OIL and, if so, the platform on which it is maintained and the interfaces available for integration. Kindly confirm that: (a) creation of 3D/CAD/BIM models, laser scanning, as-built reconstruction, document digitisation and tag-level linking are excluded from solution scope (b) OIL shall provide such 3D models, engineering data and tagged documents as are available, in an agreed format with applicable viewing licences (c) Solution obligation is limited to demonstrating the platform's capability to connect to, embed and visualise such models within the CCC UI, such capability to be validated during UAT using a representative sample dataset provided by OIL (d) non-availability or delayed availability of OIL's 3D models, engineering data or tagged document repository shall not be a precondition to Go-Live, and any resulting delay shall be treated as attributable to OIL, without Liquidated Damages or withholding of milestone payments to the bidder (e) any subsequent requirement for model creation or population shall be treated as a change order under item K1 (Additional Man-days, Page 261).	Please refer response to Query Slno#4 above
351	103	PART-4 | SECTION-II SCOPE OF WORK (SOW)/ | 4. Scope of work | Clause 4.10	Read with Clause 6.1(h) (Page 185) and the Asset Data Contextualization requirements (Pages 196–197), we understand "comprehensive modelling" refers to asset and data modelling, hierarchy, templates and contextualisation within the OT Data Lake, and does not include physical 3D modelling, reservoir modelling, or well/network/process simulation. Kindly confirm. If any element of physical, reservoir or process simulation modelling is intended, we request that the specific deliverable, the applicable modelling and simulation software (including whether such licences are to be provided by OIL), the source of input data, and the corresponding line item in the Schedule of Rates be identified, as no such provision presently exists.	Comprehensive modelling refers to digital representation/digital twin presentation capability wherever applicable to the defined assets, processes and value chain, including asset hierarchy, templates, contextualization, visualization and performance overlays.

352	105	Part-4 Section-II | SOW - Scope of Work | 4.25	Page 210 of this tender requires the CCC platform to be a fully integrated commercial off-the-shelf (COTS) software platform, and Clause 6.2.k provides for subscription-based licensing. For a COTS product, the core platform intellectual property remains with the product OEM and is licensed to the customer, while everything developed specifically for the customer vests with the customer. We understand that Clause 4.25 applies to all customizations, configurations, dashboards, workflows, models and integrations developed specifically for OIL under this contract, while the pre-existing core COTS platform remains the intellectual property of the respective OEM, licensed to OIL as per the subscription terms. Kindly confirm if our understanding is correct. This reading keeps Clause 4.25 fully consistent with the COTS requirement and secures OIL's unrestricted rights over everything built for OIL.	Intellectual property for everything developed for OIL along with all customisation work shall vest with OIL. This applies to all customizations, configurations, dashboards, workflows, models and integrations developed specifically for OIL under this contract.
353	333	7. Network and Security | 7.8.	To further strengthen the security and assurance of the proposed CCC platform, we kindly request that the solution should also undergo independent security verification against recognized application security guidelines, particularly considering the critical nature of the IT/OT environment and the sensitive operational data handled by the platform. We request that the following may be added to the clause: “The CCC platform shall comply with OIL’s IT/OT security requirements (including SSO, RBAC and OSDU where applicable) and with MEITY/CERT In regulations on data residency and security. The proposed software application should have qualified Security verification certificate for OWASP and SANS guidelines by CERT-IN from an empanelled Government Information Security Auditing organization for testing and issuing the certificate. Documentary Proof needs to be submitted at the time of bid submission."	No change, to be guided by tender terms
354	29	31. GOODS AND SERVICES TAX: | 33	To further strengthen the Make in India and local-content requirements, we kindly request that the Intellectual Property Rights (IPR) for the proposed software solution/OEM should reside in India. This will ensure ownership, control and long-term support of the proposed solution within India and strengthen the requirement for indigenous technology. Accordingly, we request that the following to be added to the clause: "Intellectual Property Rights for software OEM should reside in India. OEM shall facilitate the validation of IPR/source code copyright for all the hardware &	OIL will review & revert

			software OEMs from copyright.gov.in to check the authenticity of the source code."	
355	-	Additional Suggestion | -	CMMI Level 3 certification demonstrates that the OEM follows defined, standardized and repeatable processes for software development, quality management and delivery. This helps ensure better product quality, process efficiency, reliability and long-term support capability. Including this requirement will provide an objective and independently verifiable measure of the OEM's process maturity and ensure that the proposed software application is developed and supported through established quality processes. We kindly request inclusion of the below clause: "The OEM of the proposed software application should have valid & genuine CMMI L3 certificate to ensure its process efficiency, promote quality product and development. OEM shall facilitate the validation of CMMI L3 Certificate from CMMI Institute from CMMI PARS portal. Documentary Proof needs to be submitted at the time of bid submission."	OIL will review & revert
356	210	Section 6.3(a) "CCC Operations" table	Clause 6.3(l) and 4.21 simultaneously require the Bidder to "design, develop and deploy" the CCC applications, dashboards and mobile app. This appears contradictory - a COTS platform is pre-built/configured, while "design and develop" implies custom software development. Kindly clarify whether OIL expects (a) a COTS/configurable platform customized through configuration, or (b) a fully custom-developed application built from scratch, as this materially affects technology stack selection, effort estimation, and pricing.	The CCC Platform shall be an established and commercially available COTS platform available prior to the bid closing date. The platform shall possess native capabilities for dashboarding, visualization, workflow management, event and alarm management, mobile access, integration and role-based access control etc. Please refer to amendments to be published
357	105	Section 4.25	If the Bidder proposes a COTS/licensed platform (as implied by Section 6.3), the underlying product source code will remain the OEM's IP and cannot be transferred to OIL. Please clarify whether this clause applies only to custom-built code/configurations/customizations layered on top of the base platform, or whether OIL mandates a fully bespoke, ground-up developed solution so that complete source code ownership is possible.	Intellectual property for everything developed for OIL along with all customisation work shall vest with OIL. This applies to all customizations, configurations, dashboards, workflows, models and integrations developed specifically for OIL under this contract.

358	209	Section 6.3(a)(X)(i) - Field Mobile App	Section 6.3 lists 11 business functions (Geoscience, Drilling, HSE, Finance, HR, etc.) across 4 locations with ~350-400 KPIs, and the platform is meant to serve field personnel across all operational sites. Please confirm whether 75 concurrent users is the total across the entire organization/all locations, or per-location, and clarify the basis for this sizing (expected field workforce, growth projection) so architecture and licensing can be sized appropriately.	75 concurrent users is the total across the entire organization/all locations
359	40	Annexure-A2, Key Personnel Table (BEC)	Given the scope includes development/configuration of the CCC web application, dashboards (350-400 KPIs), mobile app (Android & iOS), analytics engine, workflow engine, and 3D/GIS visualization across 4 locations within a 10-month implementation window, a single developer resource appears grossly inadequate. Please clarify whether this is only the minimum mandatory key-personnel headcount for bid eligibility, and confirm that Bidders are free to (and expected to) propose a larger application development team in their technical proposal without being non-compliant.	Tender has specified minimum requirement of resources; Bidders can provide more.
360	221–222	Section 9.2, Implementation & Delivery Schedule (Activities #3, #5, #6)	Considering the breadth of software deliverables (enterprise dashboard, mobile app, workflow/business rule engine, GIS/3D visualization, no-code configuration module, reporting engine, RBAC/SSO, etc.), please clarify if application design/development is expected to commence earlier (in parallel with infrastructure setup, i.e., from T0+2 months when the Blueprint/Application Design is approved) rather than being compressed into the final 3 months, and whether the Bidder may propose a revised phased development schedule in the technical bid.	Yes; design/development can commence in parallel with infrastructure set-up. Please refer to Table - 'Implementation & Delivery Schedule' under "9.2. Phase-1 (Current Scope) implementation timeline" at Pg#221
361	202	Section 6.2(b)(c)	Since API availability from OIL's source systems (SAP S/4HANA, E&P Databank, eRTMAC, CBM, BoLD, S&E Portal, SOC, AMIS, etc.) is a critical dependency for the Bidder's middleware/integration development timeline, please specify (a) the committed timeline/SLA by which OIL will enable and make these APIs available to the Bidder, and (b) whether any of the listed source systems currently lack API capability, so that dependency risk can be factored into the development schedule.	OIL will facilitate application-side API enablement and related configurations. Detailed API availability, interface specifications, dependencies for individual systems shall be assessed and finalized during detailed engineering/design phase.

362	212	Section 6.3(a)(IX) - "No-Code New Well, Asset and KPI Addition"	Please clarify whether OIL expects the Bidder to build/develop this no-code configuration engine as a custom software module, or whether this capability is expected to be delivered via an existing licensed COTS no-code/low-code platform (e.g., Power Apps, Mendix, OutSystems, or similar) integrated into the CCC solution. This impacts technology architecture and license cost estimation.	The CCC Platform shall be an established and commercially available COTS platform available prior to the bid closing date. The platform shall possess native capabilities for dashboarding, visualization, workflow management, event and alarm management, mobile access, integration and role-based access control. The platform shall provide built-in no-code capabilities enabling authorized users to create, configure and manage dashboards, KPIs, alerts, workflows, asset hierarchies, wells, facilities, equipment, and business rules without requiring source-code modification or OEM product development. The bidder shall configure, customize, integrate and deploy the platform to meet OIL's requirements. Development of a completely bespoke CCC platform from scratch will not be accepted. OIL may seek product literature, OEM declarations, release information, and reference installations during technical evaluation to establish platform maturity.
363	207–208	Section 6.3(a)(VII) - "AI/ML Predictive Analytics & Forecasting (Future Scope - Phase-2)"	Section 4.11 and 4.17 (current Scope of Work, Phase-1) also require the platform to be "architected/provisioned to support future AI/ML-driven analytics" and "future-ready with conversational AI capabilities." Please clarify the exact Phase-1 deliverable: is the Bidder required only to design an extensible architecture (APIs/data pipelines/hooks) in Phase-1 without building any AI/ML models or conversational AI features, or is some baseline AI/ML development also expected to be priced and delivered within the current 10-month Phase-1 scope?	As of now, no AI/ML model or conversational AI development is required in Phase-1. The proposed platform shall be architected and provisioned to support future AI/ML-driven analytics, third-party/custom model integration and conversational AI capabilities. Detailed future use cases will be taken up separately.
364	193	Section 6.1(b)(b)	This licensing/user-count specification is given for the OT Data Historian/Data Lake system. Please confirm whether a similar minimum user-licensing specification (named/concurrent users) applies to the CCC web application and IT Middleware/Business Data Lake platform for software licensing and subscription cost purposes, since Section 6.3 only specifies operator/user headcounts (CCC & Web Application Users: 15+10+25+5 = 55 users) without stating whether these are named or concurrent licenses.	CCC & Web Application Users should be Concurrent user license based

365	209	Section 6.3(a)(XI) - "Functions in scope" & KPI count	For accurate development effort and cost estimation of the dashboard/analytics/reporting engine, please share (or confirm timeline for sharing) a detailed, function-wise draft KPI list / Business Requirement Document (BRD), including data source mapping for each KPI, either as part of this RFP or during the post-award Blueprint Design phase (Activity #3, T0+2 months).	The indicative KPI count and functions are provided in Section 6.3. The detailed function-wise KPI catalogue, calculation formulas, data-source mapping and aggregation logic will be identified and finalized through workshops during the Blueprint/Detailed Design phase.
366	211	Section 6.3(a) - "3D Rendering (Should support future integration)"	The heading itself notes "should support future integration," creating ambiguity on whether full 3D rendering/visualization functionality must be developed and delivered in Phase-1 Go-Live, or whether only the underlying architecture/APIs need to support future 3D integration (with actual 3D models/rendering being a Phase-2 deliverable). Please clarify the Phase-1 deliverable scope for this requirement.	It is clarified that the CCC Platform shall support visualization of operational assets in 3D along with operational overlays, equipment health indicators and contextual information. The CCC Platform shall be capable of integrating with existing or future Digital Twin platforms, 3D asset models, and associated metadata repositories through standard integration mechanisms and APIs.
367	204	Section 6.3(d)	Please clarify the extent of "bi-directional control" expected from the CCC application - i.e., whether the platform is required only to write set-points/commands for HVAC, AV, and building-management (BACnet) type systems, or whether it must also support control/write-back commands to process control systems (DCS/SCADA/PLC) governing plant operations, since the latter has significant safety, functional-safety (SIL), and cybersecurity design implications for the software architecture.	Data flow will be unidirectional upwards from OT. IT Data Lake to CCC Application
368	116	5.1. Corporate Office, WTC Delhi | A4.1.5 | Security –(AES-128 or better)	The current specification refers to AES-128 or better encryption. We r request to clarify and/or amend the clause to allow products utilizing AES-128 or stronger encryption with validated cryptographic security modules, including FIPS validated modules or equivalent industry-recognized cryptographic validation standards.	No change, to be guided by tender terms
369	117	5.1. Corporate Office, WTC Delhi | A4.1.17 | KVM RX – HDR & Stereoscopic 3D Compliant	HDR and Stereoscopic 3D support are specialized features generally required for controlware driving 3D display or Visual setup. Such requirements unnecessarily restrict participation of IP KVM extenders Brands if the end-use application does not specifically require full canvas of large display.	No change, to be guided by tender terms

370	118	5.1. Corporate Office, WTC Delhi | A4.1.31 | Source Control	Need clarification on the fucntionality, from user persective	The operators should be able to interact with visualized content and connected sources through a touch-enabled interface supporting standard gestures such as zoom, pan, navigation, source selection, and other appropriate multi-touch interactions where supported by the source application and system architecture. Bidders may propose equivalent or superior solutions. However, the functionality for multi-touch interaction and gesture-based control of visualized content shall remain available as specified in the tender.
371	117	5.1. Corporate Office, WTC Delhi | A4.1.25 | Multifunctional Keyboard	"The requirement for a 'Multifunctional Keyboard with Programmable Keys' is proprietary feature associated with a specific manufacturer only. Specifying such a feature may unnecessarily restrict competition and limit participation by other qualified and proven vendors whose solutions meet the operational and performance requirements of the project. We respectfully request that the specification be revised to focus on functional performance criteria rather than brand-specific or proprietary features, thereby ensuring a fair, open, and competitive bidding process."	Please refer to amendment to be published
372	121	5.1. Corporate Office, WTC Delhi | A6.7 | VW Controller – And asked for 24 Outputs and LED has there is only 2 LED Controller.	The requirement of 24 controller outputs appears disproportionate to the specified LED wall size and resolution. Different LED manufacturers use different controller architectures and output capacities. Therefore, specifying a fixed number of outputs may unnecessarily restrict equivalent solutions. We request that the requirement be modified to 'sufficient outputs to achieve the specified native resolution with the required redundancy and HDR/3D functionality' rather than mandating a fixed output count."	Please refer to amendment to be published
373	149	5.2. FHQ, Duliajan | B4.3.1 | KVM RX – HDR & Stereoscopic 3D Compliant	HDR and Stereoscopic 3D support are specialized features generally required for controlware driving 3D display or Visual setup. Such requirements unnecessarily restrict participation of IP KVM extenders Brands if the end-use application does not specifically require full canvas of large display.	No change, to be guided by tender terms

374	150	5.2. FHQ, Duliajan | B4.4 | Multifunctional Keyboard	"The requirement for a 'Multifunctional Keyboard with Programmable Keys' is proprietary feature associated with a specific manufacturer only. Specifying such a feature may unnecessarily restrict competition and limit participation by other qualified and proven vendors whose solutions meet the operational and performance requirements of the project. We respectfully request that the specification be revised to focus on functional performance criteria rather than brand-specific or proprietary features, thereby ensuring a fair, open, and competitive bidding process."	Please refer to amendment to be published
375	150	5.2. FHQ, Duliajan | B4.4.6 | Source Control	Need clarification on the fucntionality, from user persective	The intent of the clause is to enable operators to interact with visualized content and connected sources through a touch-enabled interface supporting standard gestures such as zoom, pan, navigation, source selection, and other appropriate multi-touch interactions where supported by the source application and system architecture. Bidders may propose equivalent or superior solutions. However, the functionality for multi-touch interaction and gesture-based control of visualized content shall remain available as specified in the tender.
376	153	5.2. FHQ, Duliajan | B6.7 | VW Controller – And asked for 20 Outputs and LED has there is only 2 LED Controller.	The requirement of 24 controller outputs appears disproportionate to the specified LED wall size and resolution. Different LED manufacturers use different controller architectures and output capacities. Therefore, specifying a fixed number of outputs may unnecessarily restrict equivalent solutions. We request that the requirement be modified to 'sufficient outputs to achieve the specified native resolution with the required redundancy and HDR/3D functionality' rather than mandating a fixed output count."	Please refer to amendment to be published
377	167	5.3. Rajasthan Fields (RF), Jodhpur | C3.1.3 | Security and Data Segregation	The current specification refers to AES-128 or better encryption. We r request to clarify and/or amend the clause to allow products utilizing AES-128 or stronger encryption with validated cryptographic security modules, including FIPS validated modules or equivalent industry-recognized cryptographic validation standards.	No change, to be guided by tender terms

378	168	5.3. Rajasthan Fields (RF), Jodhpur | C3.3.1 | KVM RX – HDR & Stereoscopic 3D Compliant	HDR and Stereoscopic 3D support are specialized features generally required for controlware driving 3D display or Visual setup. Such requirements unnecessarily restrict participation of IP KVM extenders Brands if the end-use application does not specifically require full canvas of large display.	No change, to be guided by tender terms
379	117	5.3. Rajasthan Fields (RF), Jodhpur | C3.4 | Multifunctional Keyboard	"The requirement for a 'Multifunctional Keyboard with Programmable Keys' is proprietary feature associated with a specific manufacturer only. Specifying such a feature may unnecessarily restrict competition and limit participation by other qualified and proven vendors whose solutions meet the operational and performance requirements of the project. We respectfully request that the specification be revised to focus on functional performance criteria rather than brand-specific or proprietary features, thereby ensuring a fair, open, and competitive bidding process."	Please refer to amendment to be published
380	171	5.3. Rajasthan Fields (RF), Jodhpur | C5.7 | VW Controller – And asked for 24 Outputs and LED has there is only 2 LED Controller.	The requirement of 24 controller outputs appears disproportionate to the specified LED wall size and resolution. Different LED manufacturers use different controller architectures and output capacities. Therefore, specifying a fixed number of outputs may unnecessarily restrict equivalent solutions. We request that the requirement be modified to 'sufficient outputs to achieve the specified native resolution with the required redundancy and HDR/3D functionality' rather than mandating a fixed output count."	Please refer to amendment to be published
381	178	5.4.Pipeline Headquarter (PHQ), Guwahati | D3.3.1 | KVM RX – HDR & Stereoscopic 3D Compliant	HDR and Stereoscopic 3D support are specialized features generally required for controlware driving 3D display or Visual setup. Such requirements unnecessarily restrict participation of IP KVM extenders Brands if the end-use application does not specifically require full canvas of large display.	No change, to be guided by tender terms
382	179	5.4.Pipeline Headquarter (PHQ), Guwahati | D3.4 | Multifunctional Keyboard	"The requirement for a 'Multifunctional Keyboard with Programmable Keys' is proprietary feature associated with a specific manufacturer only. Specifying such a feature may unnecessarily restrict competition and limit participation by other qualified and proven vendors whose solutions meet the operational and performance requirements of the project. We respectfully request that the specification be revised to	Please refer to amendment to be published

			focus on functional performance criteria rather than brand-specific or proprietary features, thereby ensuring a fair, open, and competitive bidding process."	
383	182	5.4.Pipeline Headquarter (PHQ), Guwahati | D5.7 | VW Controller – And asked for 24 Outputs and LED has there is only 2 LED Controller.	The requirement of 24 controller outputs appears disproportionate to the specified LED wall size and resolution. Different LED manufacturers use different controller architectures and output capacities. Therefore, specifying a fixed number of outputs may unnecessarily restrict equivalent solutions. We request that the requirement be modified to 'sufficient outputs to achieve the specified native resolution with the required redundancy and HDR/3D functionality' rather than mandating a fixed output count."	Please refer to amendment to be published
384	31	Part 3 - BID EVALUATION CRITERIA (BEC) | 3.2 | EXPERIENCE CRITERIA: Bidders should meet all the following experience criteria (A, B, C & D): A. The bidder must have successfully executed/completed "Command & Control Centre Infrastructure Works, which includes supply, installation, integration and commissioning of Command & Control / Integrated Command Centre / War Room facilities including controlroom civil & interior fit-out, video-wall(s), operator consoles, AV/VC systems and associated utilities" over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals as under: a. One (01) completed above work having executed value not less than INR 42,39,72,000.00. OR b. Two (02) completed above works each having executed value not less than INR 26,49,82,000.00. OR c. Three (03) completed above works each having executed value not less INR 21,19,86,000.00	Kindly confirm whether multiple purchase orders issued by a single customer (for a single or multiple locations), but pertaining to the same Command and Control Centre, Infrastructure Work etc, can be considered together as one completed work for the purpose of meeting the experience criteria. This clarification will help to encourage wider participation from capable bidders.	Clarified. To be guided as per tender document.

385	31–32	BEC Clause 3.2(B), 3.2(C), 3.2(D)	The specified three experience criteria are overly restrictive, particularly given that their financial contribution is minimal relative to the total scope of work. To foster broader participation, OIL is respectfully requested to consider either: 1. Removing these three conditions from the qualification requirements. 2. Permitting the L1 bidder (contractor) to engage specialized agencies / subcontractors for the execution of these specific parameters. Relaxing these conditions will enhance both the quantity and quality of competitive bidding, ultimately enabling OIL to benefit from more competitive pricing and robust technical standards.	OIL will review and revert on Experience criteria.
386	31,32	3.2	For Criteria A - Command & Control Centre Infrastructure Works, please revise as following One (1) similar work having executed value not less than INR 20 Crores. OR Two (2) similar works, each having executed value not less than INR 12 Crores. OR Three (3) similar works, each having executed value not less than INR 7 Crores. Also confirm, if the value is inclusive of GST?	Clarified. The value is exclusive of GST.
387	31,32	3.2	For Criteria B - OT Data Acquisition & Industrial Data Ingestion: At least 01 (One) no. of the following solution against one contract of minimum value of INR 1 Crore	OIL will review and revert on Experience criteria.
388	31,32	3.2	For Criteria C - Enterprise IT & Middleware Integration: At least 01 (One) no. of the following solution against one contract of minimum value of INR 1 Crore	OIL will review and revert on Experience criteria.

389	38	3.2.2 (iv)	In case of Consortium bidding, the collective experience of consortium members shall have to meet the experience criteria as per Clause 3.2 of BEC. Please allow/ clarify if the Criterias in 3.3 (A,B,C,D) can stisfied by the each member of the consortium partially but together they satisfy the criteria in entirity.	Clarified. To be guided as per tender document.
390		Part-3, BEC Cl. 3.2(A) Page 31 | Experience must be in the Oil & Gas, Petrochemicals, Power, Utilities or Metals sectors.	Please consider extending the eligible sectors to include Integrated Command and Control Centres executed for Smart Cities, transportation and metro networks, ports and airports, or public safety agencies, any Government Agencies , where the technical scope of control-room fit-out, video walls, operator consoles and AV/VC integration is materially identical. Request you to amend the clause as :- The bidder must have successfully executed/completed "Command & Control Centre Infrastructure Works, which includes supply, installation, integration and commissioning of Command & Control / Integrated Command Centre / War Room facilities including control-room civil & interior fit-out, video-wall(s), operator consoles, AV/VC systems and associated utilities" over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities /State & Central Govenement/Metals as under:	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
391		Part-3, BEC Cl. 3.2(A) Page 31 | A single completed work of not less than ₹42,39,72,000 is required, or two works of ₹26,49,82,000, or three of ₹21,19,86,000.	Please confirm whether the executed value cited may include the full contract value of an integrated command centre project encompassing civil, AV, IT and integration scope, or whether only the control-room infrastructure component of such a contract is counted.	OIL will review and revert on more clarity.
392		PART-4, SECTION-II,Scope of work Page no.102 | 4.1. Bidder shall deliver the following components as per the technical and functional requirements outlined across this RFP I. Control Room Infrastructure Setup Bidder shall deliver ICCC/CCC setup at multiple locations including WTC Delhi, FHQ, Rajasthan Fields (Jodhpur), and PHQ Guwahati with	The RFP does not clearly specify the responsibility for provision of electricity supply at all four ICCC locations. Kindly confirm whether the client (Oil India Authority) will provide the required electrical power connection up to the control room sites or the bidder is responsible for arranging the same. Kindly clarify whether recurring electricity charges (power consumption charges during O&M phase) will be borne by the by Oil India Authority in all four loations.	Yes Power to Control Rooms shall be provided by OIL & power consumption during O&M Phase will be borne by Oil India Limited. The bidder shall include all downstream electrical distribution, cabling, panels, protection, earthing, UPS/PDU integration and associated works required for the complete control-room solution.

		civil, electrical, fire & safety, AV, IT hardware, and networking works.		
393		Part-4 Sec-II, Cl. 2.4(I)(d) vs Cl. 4.1(I)(d), Pg. 100 & 102 | Clause 2.4 describes PHQ Guwahati as requiring "AV and basic furnishing", while Clause 4.1 describes the same site as "including civil, electrical, AV, IT hardware & networking works".	Please confirm which description governs the scope at PHQ Guwahati, and in particular whether civil and interior works are included at that location.	Civil and interior works are not required at PHQ, Guwahati.
394		Part-4 Sec-II, Cl. 2.4(I)(c) vs Cl. 4.1(I)(c), Pg. 100 & 102 | Clause 2.4 lists RF Jodhpur as including "civil, electrical, fire & safety, AV, IT hardware & networking works". Clause 4.1 omits "fire & safety" for the same location.	Please confirm whether fire detection and suppression systems are within scope at RF Jodhpur.	No; Refer to amended clause to be published
395		Part-4 Sec-IV, BoQ items A16, B12, C8, D8, E6, F7 , page Number 255 to 260 | Several BoQ lines are worded as "Any other item required towards physical infra" or "Any other item required for set-up and integration", quoted as a lump sum.	Please confirm whether these lines are intended to cover only minor unlisted accessories, or whether they are expected to absorb any scope subsequently identified during detailed engineering. If the latter, please provide an indicative boundary or a cap.	Any Other Item" BOQ category, the bidder shall include all equipment, software, licenses, subscriptions, connectors, adapters, accessories, consumables, integration components, services, and any other items not explicitly listed elsewhere in the BOQ but required for successful design, supply, installation, configuration, integration, testing, commissioning, operation, support, and delivery of a complete turnkey solution meeting all tender requirements. No additional payment shall be made for such items if they are required for achieving the intended functionality and performance of the project
396		Part-4 Sec-II, Cl. 6.1(y) and (ee), Pg. 186; BoQ E5 | Clause 6.1(y) requires ten-year retention of historical operational data. Clause 6.1(ee) requires migration of a minimum of two years of historical data. BoQ item E5 describes migration of "2 completed financial years and current year".	Please confirm the historical data migration volume to be priced — two years, or two completed financial years plus the current year. Please also confirm whether the ten-year retention requirement applies only to data generated after Go-Live.	Two completed financial years plus the current year; The requirement for retention of historical operational data for up to ten (10) years applies to data stored and managed within the OT Data Lake environment, including migrated historical data as well as data accumulated after Go-Live.

397		Part-4 Sec-III, Cl. 4.4(11), Table A Page Number: 247 | Penalties apply where availability falls below the stated thresholds, with incremental penalties accruing until resolution.	Please confirm that the P1 resolution clock is suspended during periods awaiting OIL action — such as site access, shutdown windows, third-party OEM response on OIL-owned equipment, or OIL approvals — and that a documented pause mechanism will be agreed in the SLA operating procedure.	Penalty will not be imposed for factors not attributable to the bidder
398		Part-4 Sec-III, Cl. 4.4(6) and (7) Page number :247 | Penalty is capped at 7.5% of quarterly contract value. Separately, absence of resources attracts ₹10,000 per day per person.	Please confirm whether the resource-absence penalty falls within the overall 7.5% quarterly cap or applies in addition to it. Please also confirm the treatment of planned absence such as approved leave, public holidays and the one-month handover overlap required under Clause 12.2 for personnel replacement.	Penalty for resource-absence penalty falls within the overall 7.5% quarterly cap.
399		Part-4 Sec-I, Cl. 30.0(b) Page no:81 vs Part-4 Sec-III, Cl. 4.3 Page no:247 | GCC Clause 30.0 provides liquidated damages at 0.5% of contract value including mobilisation cost per week, capped at 7.5% of contract price. SLA Clause 4.3 provides liquidated damages at 0.5% of implementation cost per week, capped at 7.5% of implementation cost.	Please confirm that, in accordance with the preamble to the Special Conditions of Contract, the SLA provision computed on implementation cost prevails for delay in Go-Live, and clarify the base on which mobilisation delay under GCC Clause 30.0 is computed.	Clarified. SCC clause will prevail
400		Part-4 Sec-IV, BoQ A2 and B2 page no; 254& 256 | Active curved LED display with P0.93 HDR, COB flip-chip with top protection, anti-humidity, anti-scratch and anti-collision, sized 16.8 m × 2.7 m at Delhi and 9 m × 2 m at Duliajan.	Please confirm the acceptable pitch tolerance band — for example, whether a pitch in the range of P0.9 to P1.2 would be acceptable — and whether a marginally different aspect ratio would be accepted provided the specified physical dimensions and pixel density outcome are met.	To be guided by tender terms;
401		Part-4 Sec-IV, BoQ A3 and B3 page no; 254& 256 | 32-point multi-touch overlay across the full 16.8 m × 2.7 m curved LED surface at Delhi.	Please confirm whether the multi-touch overlay is required across the entire wall width, or whether an interactive zone covering a defined portion of the wall would meet the operational requirement.	Required across the entire wall

402		Part-4 Sec-IV, BoQ A7 and B7 page no; 255& 257 | Multi-user 3D stereoscopic immersive simulation system supporting a wide range of industry-leading 3D CAD and visualisation software without requiring file conversions, including Petrel and ArcGIS.	Please confirm the specific applications and versions that must be supported natively, the number of concurrent tracked users required, and whether OIL will provide the underlying Petrel and ArcGIS licences or whether these are to be included in the bidder's scope.	Petrel License is not included in bidder's scope;
403		Part-4 Sec-IV, BoQ A11 Page no: 256 | Holographic box with real-life 3D AI based character creation and integration with generative AI LLM of company assets, with interactive CMS.	Please provide the functional requirement in more detail — the physical display size, the intended use cases, the expected interaction modes, whether the LLM is to be hosted on OIL's cloud subscription, and the data sources that constitute "company assets". Please also confirm the licensing model expected for the generative AI component over the five-year AMC period.	The holographic solution is intended primarily as an interactive digital engagement and information-assistance platform for use within the CCC environment, enabling natural language interaction, guided information retrieval, presentation of enterprise information, asset-related knowledge dissemination, and future AI-enabled user interaction. The bidder shall provide a holographic display (Min 60" size) solution complete with display hardware, required licensing, interactive content management system (CMS), AI-based digital character/avatar capabilities, and integration framework with enterprise knowledge sources.
404		Part-4 Sec-III, Part A, Product Lifecycle Compliance, Pg. 231 | No item may approach End of Sale or End of Support Life during implementation or for five years after Go-Live, a period of approximately six years from award.	Please confirm that the requirement is met where the OEM commits to support availability for the period, notwithstanding that the product may reach End of Sale earlier, since End of Sale and End of Support Life are distinct milestones for most IT hardware.	The requirement is met where the OEM commits to the 2 aspects: a) support availability for the contract period; b) item shall not reach End-of-sale prior to delivery;
405		Part-4 Sec III Page 221 | 9. Implementation & Delivery Schedule , 9.2. Phase-1 (Current Scope) implementation timeline	Since the project involves setting up systems at four different locations at the same time, we request clarification on the total project timeline. To properly complete design, procurement, installation, integration, testing, and commissioning at all sites in a planned and phased manner, we require a minimum of 16 months. Kindly confirm if the project timeline can be extended accordingly to ensure smooth execution without affecting quality or compliance.	OIL will review & revert

406		Part 4 Section II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 113 of 343 | A2.8 Refresh Rate :7680 Hz	Request to consider a minimum refresh rate of 3840 Hz or higher, which is widely accepted as the industry standard for professional indoor fine-pitch LED displays and provides excellent visual performance, flicker-free viewing, and broadcast compatibility while enabling wider OEM participation.	No Change; To be guided by tender terms;
407		Part 4 Section I. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 113 of 343 | A2.18 Protection and Surface Treatment :Anti-Scratch, Anti-Dust, Anti-Moisture, Anti- Collision, Anti-Glare, Anti-Static, Anti-Moiré, Front Water-Proof	IP50 is an established industry standard for indoor control room and command center applications and adequately ensures protection against dust and operational wear.	No Change: To be guided by Tender Terms
408		Part 4 Section II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 113 of 344 | BIS and Low Blue light / Eye Comfort Certifications	Request to mention BIS to be provided and Low Blue Light/Eye Comfort certification optional . Eye Comfort certifications vary across manufacturers and may unnecessarily restrict competition	OIL will review and revert
409		Part 4 Section II ,B2 Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components Page no 145 | B2.7 Refresh Rate :7680 Hz	Request to consider a minimum refresh rate of 3840 Hz or higher, which is widely accepted as the industry standard for professional indoor fine-pitch LED displays and provides excellent visual performance, flicker-free viewing, and broadcast compatibility while enabling wider OEM participation.	No Change; To be guided by tender terms;
410		B2 Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components , Page no 146 | B 2.17 Protection and Surface Treatment :Anti-Scratch, Anti-Dust, Anti-Moisture, Anti-Collision, Anti-Glare, Anti-Static, Anti-Moiré, Front Water-Proof	IP50 is an established industry standard for indoor control room and command center applications and adequately ensures protection against dust and operational wear.	No Change: To be guided by Tender Terms

411		Part 4 Section II, B2 Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components , Page no 146 | BIS and Low Blue light / Eye Comfort Certifications	Request to mention BIS to be provided and Low Blue Light/Eye Comfort certification optional . Eye Comfort certifications vary across manufacturers and may unnecessarily restrict competition	OIL will review and revert
412		Part 4 Section II, D2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount Page 175 | D 2.8 Refresh Rate :7680 Hz	Request to consider a minimum refresh rate of 3840 Hz or higher, which is widely accepted as the industry standard for professional indoor fine-pitch LED displays and provides excellent visual performance, flicker-free viewing, and broadcast compatibility while enabling wider OEM participation.	No Change; To be guided by tender terms;
413		Part 4 Section II, D2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount Page 176 | D 2.18 Protection and Surface Treatment :Anti-Scratch, Anti-Dust, Anti-Moisture, Anti- Collision, Anti-Glare, Anti-Static, Anti-Moiré, Front Water-Proof	IP50 is an established industry standard for indoor control room and command center applications and adequately ensures protection against dust and operational wear.	No Change: To be guided by Tender Terms
414		Part 4 Section II D2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount, Page 176 | BIS and Low Blue light / Eye Comfort Certifications	Request to mention BIS to be provided and Low Blue Light/Eye Comfort certification optional . Eye Comfort certifications vary across manufacturers and may unnecessarily restrict competition	OIL will review and revert
415		Part 4 Section II,. Video Wall, AV Infrastructure, VC, and other IT Hardware Components, Page 114 of 343 | A2.26 Number of Inputs: Required number of Inputs to achieve Pixel-to-Pixel Resolution in Stereoscopic 3D & HDR10+ and additional 20% spare input ports	LED Controller is connected to LED Tiles only and take input from IPKVM decoders and Oil India input sources will only directly connected to IPKVM Encoders so additional spares in LED Controller are not required Request you it to change: Required number of Inputs to achieve Pixel-to-Pixel Resolution in Stereoscopic 3D & HDR10+	No Change: To be guided by Tender Terms

416		Part 4 Section II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343 | A2.27 Number of Outputs (RJ45/ OFC): Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode and additional 10% for Spare Output ports	LED Controller is connected to LED Tiles only and take input from IPKVM decoders and Oil India input sources will only directly connected to IPKVM Encoders so additional spares in LED Controller are not required Request you it to change: Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode	No Change: To be guided by Tender Terms
417		Part 4 Section II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343 | A2.27 Number of Outputs (RJ45/ OFC): Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode and additional 10% for Spare Output ports	LED Controller is connected to LED Tiles only and take input from IPKVM decoders and Oil India input sources will only directly connected to IPKVM Encoders so additional spares in LED Controller are not required Request you it to change: Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode	No Change: To be guided by Tender Terms
418		Part 4 Section II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343 | A2.27 Number of Outputs (RJ45/ OFC): Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode and additional 10% for Spare Output ports	LED Controller is connected to LED Tiles only and take input from IPKVM decoders and Oil India input sources will only directly connected to IPKVM Encoders so additional spares in LED Controller are not required Request you it to change: Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode	No Change: To be guided by Tender Terms
419		Part 4 Section II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343 | A2.29 Features: - Hot-swappable input and output cards - Frame synchronization: image should be played smoothly, without any stuck, frame loss, tearing or piercing - Should supports HDR10+ and Stereoscopic 3D Function - Auto monitoring and fault alarms should be available	Request you to remove Hot-swappable input and output cards which is specific to one OEM only makes other OEM participation rigid	OIL will review & revert
420		Part 4 Section II A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 116 of 343 | A4.1.6 True Redundancy and High Availability: The True Redundancy and High Availability (HA) framework should ensure that	These specs are one OEM Specific which makes other OEM participation rigid request you to change the specs as per below: True Redundancy and High Availability: The True Redundancy and High Availability (HA) framework should ensure that the system remains fully operational under any fault condition — whether network, hardware, power, or controller-related: 1. Controller-Level Redundancy – dual synchronized controllers (active/standby). 2. Network-Level	OIL will review & revert

		the system remains fully operational under any fault condition — whether network, hardware, power, or controller-related: 1. Controller-Level Redundancy – dual synchronized controllers (active/standby). 2. Network-Level Redundancy – dual switches, VLAN separation, and redundant fiber paths. 3. Power-Level Redundancy – dual independent power supplies for each node. 4. Device-Level Redundancy – duplicate TX/RX units for critical feeds and displays.	Redundancy – dual switches, VLAN separation 3. Power-Level Redundancy – dual independent power supplies for controller node	
421		Part 4 Section II A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343 | A4.1.30 Display: Minimum 10.1" LCD touch display, resolution 1280x800 @60Hz Contrast: min. 500:1, typical 700:1 Brightness: min. 300 cd/m2, typical 400 cd/m2	These specs are one OEM Specific which makes other OEM participation rigid request you to change the specs as per below: Display: Minimum 10.1" LCD touch buttons to control layouts	OIL will review & revert
422		Part 4 Section II A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343 | A4.1.31 Source Control: The touch display should support, multi touch control of any connected source with zoom in zoom out gestures etc.	These specs are one OEM Specific which makes other OEM participation rigid request you to change the specs as per below: Source Control: The touch buttons should support of control layout of any connected source	The intent of the clause is to enable operators to interact with visualized content and connected sources through a touch-enabled interface supporting standard gestures such as zoom, pan, navigation, source selection, and other appropriate multi-touch interactions where supported by the source application and system architecture. Bidders may propose equivalent or superior solutions. However, the functionality for multi-touch interaction and gesture-based control of visualized content shall remain available as specified in the tender.
423		Part 4 Section II A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343 | A4.1.32 Environment Control: The Operator Console should provide customizable layout for environment control for controlling lights, HVAC, doors, height adjustments of consoles etc.	These specs are one OEM Specific which makes other OEM participation rigid request you to change the specs as per below: Environment Control: The Operator Console should provide customizable layout	OIL will review & revert

424		Part 4 Section II, A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343 | A4.1.35 Programmable Touchscreen Display: - Operators should be able to create custom layouts with soft-keys and role-based menus. - Operators shall, via a role-based desktop interface, be able to preview, route authorized sources/layouts between their workstation, the video wall and other room displays; securely share windows - Operator Consol should dynamically adapt to user profiles, reflecting permissions and assigned sources. - Operator Consol should support real-time feedback for source selection, wall presets, and communication channels.	These specs are one OEM Specific which makes other OEM participation rigid request you to change the specs as per below: Programmable Operator Console: - Operators should be able to create custom layouts with soft-keys and role-based menus. - Operators shall, via a role-based desktop interface, be able to preview, route authorized sources/layouts between their workstation, the video wall and other room displays; securely share windows - Operator Consol should dynamically adapt to user profiles, reflecting permissions and assigned sources. - Operator Consol should support real-time feedback for source selection, wall presets, and communication channels.	OIL will review & revert
425		2.7.1.9. Page 327 of 343 The Video Wall solution should comply with relevant international standards, including: | The Video Wall solution should comply with relevant international standards, including: •ISO 9001:2015 – Quality Management System •ISO 45001 – Occupational Health & Safety Management System (or equivalent) •ISO 14001:2015 – Environmental Management System (or equivalent)	Request to consider following certification so as to protect sensitive operational and business information from cyber threats, unauthorized access, data breaches, and system compromise. •ISO 9001:2015 – Quality Management System •ISO 27001:2022 – Information Security Management System •ISO 45001 – Occupational Health & Safety Management System (or equivalent) •ISO 14001:2015 – Environmental Management System (or equivalent)	No Change: To be guided by Tender Terms
426	101	3.2. OT & IoT Systems	We understand that the SCADA and DCS systems identified for integration are equipped with the required OPC capabilities. Kindly confirm that the necessary OPC communication licenses required for integration will be provided by OIL India Limited.	1. OT Data Lake Integration at Level 4 A. The OT Data Lake (Level 4) shall connect to the OPC servers hosted within the respective SCADA systems at Level 3.5. B. This means the OT Data Lake will act as an OPC UA client and collect data from the SCADA environment. 2. SCADA Responsibility A. The SCADA servers are required to provide OPC UA connectivity and the necessary communication ports. B. Therefore, the responsibility for providing OPC UA server functionality lies primarily with the SCADA OEM/vendor.

				3. OT Data Lake Compatibility A. The OT Data Lake solution must support OPC UA protocol for secure data exchange. 4. Data Transfer beyond OT Data Lake A. The OT Data Lake solution must support industry-standard protocols such as OPC UA, OPC DA, etc., to facilitate secure and reliable data transfer beyond the OT Data Lake to various data platforms that form part of OIL's Digital Drive 2.0 initiative.
427		3.2. OT & IoT Systems	Kindly confirm whether data from all integrated systems will be centrally stored at FHQ and made available for access from all four CCC locations. Further, we understand that the servers and associated IT infrastructure required for operating the ICCC platform will be located at FHQ.-	Date from all integrated OT systems shall reside in OT Data Lake on-prem at FHQ; However, the IT Data Lake, IT Middleware & CCC Application shall be hosted on cloud;
428	102	4. Scope of work	Kindly confirm whether OIL India Limited will provide vacant and ready-to-use rooms at all four locations for establishment of the ICCC facilities. We further understand that only minor civil construction, interior , furniture work will only be in bidders scope.	Yes, at Delhi, PHQ & RF; However, at FHQ, bidder shall be required to dismantle existing interior/ cabinets etc. While it is mandator for winning bidder to visit sites, bidders are welcome to carry out site survey prior to bid submission.
429	103	4. Scope of work	As per our understanding, the ICCC project scope comprises two separate Data Lakes: (1) IT Data Lake to be deployed on the Cloud along with the CCC/ICCC Application, and (2) OT Data Lake to be deployed On-Premises for storage and management of OT-related data. Kindly confirm whether this understanding is correct. Additionally, please clarify whether any integration, synchronization, or data exchange mechanism is required between the Cloud-hosted IT Data Lake and CCC Application and the On-Premises OT Data Lake.	Yes , your understanding for deployment of OT & IT Data Lake along with CCC Application is correct; For the second part, please be guided by tender terms;
430	103	4. Scope of work	The tender requires field users to “communicate securely two-way with control-room operators.” We understand that this two-way communication is intended to be through secure chat/messaging and user acknowledgement-based communication Kindly confirm whether this understanding is correct.	Yes, confirmed

431	104	4. Scope of work	Kindly clarify whether this requirement is intended to cover analytical models/advanced analytics capabilities or is limited to data visualization and dashboarding functionalities. If both capabilities are required, kindly specify the detailed scope and expected functionalities.	The current Phase-I scope does not include analytical models/advanced analytics capabilities
432	104	4. Scope of work	We understand that the requirement is for the proposed platform architecture to be AI/ML-ready and capable of supporting future integration with AI/ML analytics tools and models. Kindly confirm whether the current scope requires implementation of AI/ML use cases/models, or only the provision of the required infrastructure, data architecture, and integration capabilities to support such use cases in the future.	No AI/ML model or conversational-AI development is required in Phase-1. The proposed platform shall be architected to support future AI/ML-driven analytics for advanced decision-making
433	104	4. Scope of work	Kindly clarify whether integration of such additional/future systems is included within the Bidder's current scope and contract price, or whether such integrations shall be treated as separate/additional scope through a change order/variation.If such systems are required to be accommodated within the current scope, kindly define the maximum number of additional systems/interfaces that the Bidder is expected to support.We understand and assume that such additional/future systems will provide standard integration capabilities using industry-standard protocols/interfaces such as OPC UA/DA, Modbus TCP/IP, REST API, SQL/ODBC, MQTT, or equivalent standard interfaces. Kindly confirm.	Details are mentioned in the tender scope of work; however, please refer to relevant amendments to be published.
434	186	6. Technical & Functional Requirements for CCC	Kindly confirm whether the minimum two (2) years of historical data required for migration will be provided by the End User in CSV format for ingestion into the OT Data Lake. If the historical data is available in any other format, kindly specify the format(s).	Historical Data from SCADA Servers can be successfully migrated to OT Data Lake by using standard industrial protocols, database replication, or dedicated IOT Gateways

435	204	b) IT System integration scope:	The tender requires the Business Data Lake to handle unstructured and multimedia data, including PDFs, images, and videos. We understand that drone video feeds/recordings will be stored and managed by the central VMS/Drone Video Management System, while the ICCC will integrate with the VMS for displaying live feeds and accessing relevant recordings. Additionally, kindly clarify whether the data sharing/integration between the VMS and ICCC shall be carried out through APIs.	CCTV and video-analytics integration is required for alerts and related data. Video-feed storage shall remain with the VMS;
436	200	OT Data Lake	Kindly clarify whether the specified 500 simultaneous connections refer to authenticated users, browser sessions, dashboard sessions, API connections, concurrent visualization requests, or requests originating from the Field User Mobile Application. Additionally, please provide the expected number of concurrent users at each CCC location and the anticipated peak concurrent usage to facilitate accurate sizing of the visualization/application tier.	The requirement of 500 simultaneous connections refers to the ability to support concurrent user visualization sessions, including web-based dashboard sessions, client sessions, and authorized application-based visualization access.
437	187–188	OT Data Lake	Kindly confirm the usable storage capacity currently available on the HPE Primera A670 SAN for this project, including the RAID configuration, storage protocol, available performance/IOPS, and existing storage utilization.	OIL will review & revert
438	193–200	OT Data Lake / Historian	Kindly define the required HA architecture and the acceptable Recovery Point Objective (RPO) and Recovery Time Objective (RTO) for the OT Data Lake, ingestion services, historian, and visualization components.	Solution design to take care of HA architecture; OIL will revert on RTO/RPO
439	202	Historical Data Migration	Kindly provide the approximate volume and format of historical data available from each source system for the two completed financial years and the current year. Additionally, please clarify whether source-side extraction utilities/API access will be provided by OIL and whether data cleansing and reconciliation of inconsistent historical records are included within the Bidder's scope.	Historical Data from SCADA Servers can be successfully migrated to OT Data Lake by using standard industrial protocols, database replication, or dedicated IOT Gateways. Data cleansing and reconciliation of inconsistent historical records are included within the Bidder's scope.

440	202	Business Data Lake	Kindly provide the estimated initial and annual data growth volumes for documents, PDFs, images, and videos, along with the expected file sizes, formats, and retention periods. These parameters are required for accurate sizing of object storage, backup, bandwidth, and data lifecycle management.	Please refer to amendments for Cloud Infra
441	207–208	GIS Integration	Kindly confirm the GIS platform currently used by OIL and provide details of the available APIs/services and GIS data formats. Please also clarify whether GIS base maps, asset layers, pipeline routes, well locations, and other spatial datasets will be provided by OIL.	OIL will review & revert
442	210	Mobile Application	Kindly clarify the expected total number of registered users in addition to the minimum requirement of 75 concurrent users, as well as the supported mobile operating systems and minimum supported OS versions.	Please be guided by existing requirements in tender
443	203	Disaster Recovery	Kindly specify the required DR architecture, DR site/location, available infrastructure, RPO/RTO, replication method and frequency, and confirm whether the DR infrastructure is already available with OIL. If the Bidder is expected to provision cloud/DR resources, please clarify the required capacity and retention period for DR copies.	DR provisioning is not in the scope;
444	245–247	Performance & SLA	Kindly clarify the methodology for measuring availability of individual components, including the OT Data Lake, IT Data Lake, CCC application, mobile application, cloud infrastructure, and integration pipelines. We understand that planned maintenance, source-system outages, network outages, and failures of OIL-managed infrastructure are excluded from SLA calculations. Kindly confirm whether this understanding is correct.	Yes, system downtime for factors not attributable to bidder are excluded from SLA calculations

445	205	CCC Application	Kindly clarify whether the requirement for "bi-directional control" is intended specifically for write-back/control commands from the CCC platform to the connected OT systems, or whether it also covers functions such as acknowledgement, configuration, set-point transfer, or status synchronization. Additionally, kindly clarify whether the data transfer between the CCC platform and the connected OT systems is expected to be carried out over the Internet, or through a dedicated/private OT network or other secure communication mechanism.	Write-back/ control commands from the CCC platform to the connected OT systems is not within the scope of the tender. The CCC platform will interact with the OT Data Lake only to be hosted on-prem.
446	52	8.3 AWARD OF CONTRACT: AWARD OF CONTRACT	Please reconsider the tender award on the basis of QCBS and not just on L1 so there is a technical weightage assigned based on quality	No Change; To be guided by tender terms;
447		BIM is defined in the List of Abbreviations as Building Information Modelling, but no detailed BIM scope, deliverables, standards or implementation requirements are specified.	Kindly confirm and amend the tender scope to explicitly include BIM as a mandatory project delivery methodology for the complete design and execution scope, covering multidisciplinary model development, coordination, review, construction support and final handover.	Bidder is free to use BIM as a project delivery methodology
448		Bidder is required to provide a comprehensive design package including 3D renders, interactive 3D walkthrough model, GFC working drawings, electrical SLDs and layouts, AV signal flow diagrams, rack elevations, automation/control drawings, conduit and containment layouts, and networking architecture.	Kindly clarify that the required 3D design package shall be developed as an intelligent, data-rich BIM model rather than only as non-parametric 3D renders/walkthroughs. Please specify the required authoring platforms, model exchange formats and approval workflow.	Where BIM-based models are available with the bidder, the same may be submitted as an additional deliverable without any extra cost to OIL
449		Deliverables are required to be coordinated across architecture, structure, HVAC, electrical, IT and AV disciplines to eliminate clashes and ensure seamless execution.	Kindly make BIM-based multidisciplinary coordination and federated model review mandatory. The scope may specifically include architectural, structural, interior, HVAC, electrical, fire protection, plumbing/utilities, IT, AV, networking, automation and other applicable disciplines.	Bidder is free to utilize BIM-based multidisciplinary coordination and federated model reviews as part of its project execution methodology

450		The tender requires coordination to eliminate clashes but does not prescribe any methodology, clash detection process, responsibility matrix or reporting format.	Kindly include mandatory BIM clash detection and resolution using federated models. A periodic clash detection report shall identify hard clashes, soft/clearance clashes and workflow issues, with responsibility, status, target resolution date and closure evidence before issue of GFC drawings and during execution.	Bidder is free to choose BIM based methodology
451		GFC working drawings and coordinated drawings are required, but no Level of Development/Information requirement is stated.	Kindly specify minimum BIM Levels of Development/Information for each project stage. The tender may require appropriate model maturity for concept/design development, detailed design, coordinated GFC stage, construction/as-built stage and final handover, with discipline-wise requirements defined in a BIM Execution Plan.	The bidder shall provide adequately detailed and coordinated design deliverables, including GFC and as-built documentation, necessary for successful project execution and approval by OIL
452		No BIM Execution Plan, model management protocol, naming convention or responsibility matrix is specified.	Kindly require the successful bidder to submit a project-specific BIM Execution Plan (BEP) for approval before commencement. The BEP should define BIM uses, model breakdown structure, coordinates, units, naming conventions, classification, LOD/LOI, roles and responsibilities, review cycle, approval process, clash matrix and delivery schedule.	No Change; To be guided by tender terms;
453		No Common Data Environment (CDE) or controlled model/document exchange mechanism is specified.	Kindly provide for a Common Data Environment (CDE) for controlled sharing of models, drawings, RFIs, comments, revisions and approvals. The CDE shall maintain version control, audit trail, issue management and approved/shared/work-in-progress information states.	No Change; To be guided by tender terms;
454		3D walkthroughs and coordinated drawings are required, but model-based design reviews are not expressly mentioned.	Kindly include scheduled BIM coordination and design review meetings at defined milestones. The bidder shall present the federated model, discipline coordination status, clashes, design changes, constructability issues and action tracker for Employer/Engineer approval.	No Change; To be guided by tender terms;

455		The scope includes civil/interior works, electrical systems, HVAC/PAC, fire alarm and suppression, lighting, automation, AV, IT hardware, networking and other systems.	Kindly explicitly require BIM modelling of all applicable systems included in the BOQ so that interfaces between civil/interiors, MEP, AV, IT, networking, automation and equipment installations are spatially coordinated before procurement and installation.	Bidder is free to choose BIM modelling
456		Conduit and containment layouts, rack elevations, signal flow diagrams and network architecture are required as drawings/documents.	Kindly require these systems to be spatially coordinated in BIM, including equipment rooms/racks, cable trays, conduits, containment, access zones, service clearances and maintenance spaces, with coordinated 2D drawings extracted from approved models wherever applicable.	No Change; To be guided by tender terms;
457		No explicit requirement for 4D/5D BIM or model-based planning is provided.	Considering the multi-site and multidisciplinary nature of the project, kindly clarify whether the Employer intends to include 4D BIM for installation sequencing and programme coordination. If required, the scope should define the applicable activities, software interoperability, update frequency and review milestones. 5D/cost integration may also be considered where useful.	Please be guided by existing requirements in tender
458		The tender contains an implementation and delivery schedule, but no BIM deliverable schedule is indicated in the reviewed provisions.	Kindly include BIM deliverables and approvals as measurable milestones linked with the project schedule, such as BEP approval, base model submission, discipline models, federated model, coordination review, clash-free/GFC model, construction updates and final as-built model handover.	No Change; To be guided by tender terms;
459		Installation and commissioning deliverables are identified in the tender structure, but the reviewed provisions do not establish an explicit BIM handover requirement.	Kindly include final coordinated as-built BIM models as part of installation, commissioning and handover deliverables. The models should reflect approved site changes and final installed locations of relevant architectural, interior, MEP, AV, IT, networking, automation and equipment systems.	No Change; To be guided by tender terms;

460		Training and knowledge transfer are included in the tender structure, but no specific BIM training requirement is identified in the reviewed provisions.	Kindly include BIM model handover and knowledge transfer sessions for designated Employer personnel covering model navigation, discipline visibility, data access, coordination review, issue tracking and use of the final as-built model for future facility operations and modifications.	Bidder is free to choose BIM Model handover;
461		The tender includes a multi-user 3D immersive simulation system for geological exploration, analysis, training, simulation and digital twins presentation, with compatibility for 3D CAD and visualization software.	Kindly clarify the interface between the proposed BIM models and the digital twin/immersive visualization environment. Where technically applicable, please require open/interoperable model exchange and define whether BIM geometry and asset information are expected to support downstream visualization or digital-twin workflows.	No BIM-specific deliverables or BIM-to-Digital Twin integration requirements are required under the present scope.
462		No explicit interoperability or open-format requirement is specified for BIM information exchange.	Kindly specify acceptable native and open data exchange formats for model submissions and handover. The Employer may require non-proprietary/open model exports in addition to native files, along with coordinated drawing PDFs and schedules, to avoid dependency on a single software platform.	To be guided by existing tender terms;
463		No explicit model quality assurance/quality control requirements are specified.	Kindly include BIM QA/QC requirements covering model integrity, duplicate elements, coordinates, discipline/model alignment, naming, classifications, geometry checks, clash status, completeness of required attributes and consistency between approved model outputs and issued GFC drawings.	Bidder is free to choose BIM based QA/QC
464		BIM is only defined as an abbreviation, while several provisions require 3D design, multidisciplinary coordination, clash elimination and digital-twin-related visualization.	In view of the above requirements, kindly issue an addendum incorporating a dedicated BIM Scope of Work, BIM deliverables matrix, discipline-wise responsibilities, submission schedule, review/approval workflow, minimum model maturity requirements and final as-built handover requirements, so that all bidders quote on a uniform and comparable basis.	No Change; To be guided by tender terms;

465			We recommend that BIM be recognized as a critical component of engineering documentation. Accordingly, the tender should explicitly require that all BIM-related activities be subcontracted only to a specifically named and qualified BIM vendor with proven credentials. Bidders should be mandated to identify their proposed BIM subcontractor and submit the vendor's relevant credentials, project experience, and qualifications as part of the technical bid. This will ensure the engagement of competent BIM specialists, enhance the quality and consistency of engineering deliverables, and facilitate a fair and objective technical evaluation.	No Change; To be guided by tender terms;
466			If BIM is intended, kindly include suitable technical evaluation criteria so that all bidders are evaluated uniformly.	BIM is not intended
467			Please provide various relaxations as applicable for MSMEs	As ter tender
468	206	6.3. Develop & Deploy Cloud based CCC Application and mobile app | II. Data Aggregation & Storage a) | a) The system shall perform data cleansing, normalization, and validation to ensure consistency and accuracy.	Please Clarify Data Cleansing stands for " Identify and remove/correct duplicate, incomplete, invalid, or erroneous data." is our understanding clear?	Yes

469	208	6.3. Develop & Deploy Cloud based CCC Application and mobile app | V. Diagnostic & Descriptive Analytics: f) | f) Facilitates root cause analysis by linking anomalies to underlying operational data.	Root cause analysis is generally performed by the respective native/OEM system based on equipment-specific logic and diagnostics. The ICCC can receive the identified root cause from the native system and display it against the associated anomaly/event. Hence, we request that the requirement be suitably modified to specify that root cause information shall be received from the native/OEM system and displayed in the ICCC.	Yes
470	208	6.3. Develop & Deploy Cloud based CCC Application and mobile app | V. Diagnostic & Descriptive Analytics: g) | g) Provides automated correlation of operational events across distributed upstream assets (wells, pipelines, compressors) to identify patterns and potential risk areas.	We request you to kindly amend the clause as follows: "The system shall receive and display correlated operational events, patterns, and potential risk information provided by the respective native/upstream systems."	Yes
471	209	6.3. Develop & Deploy Cloud based CCC Application and mobile app | IX. Easy New Asset, System, KPIs Configuration: d) | d) Supports creation and configuration of new KPIs linked to assets, processes, or locations without requiring complex programming.	We request you to kindly amend the following clause, as the creation and configuration of new KPIs may require additional third-party tools, licenses, or customization, which may increase the overall solution cost. Hence, we request that the clause be suitably modified to focus on customizable dashboards for displaying available KPIs. Requested Amendment: "The system shall provide customizable dashboards for configuring and displaying available KPIs linked to assets, processes, or locations."	No Change; To be guided by tender terms;
472	209-210	6.3. Develop & Deploy Cloud based CCC Application and mobile app | XI. Functions in scope: | XI. Functions in scope:	We request you to kindly clarify whether the approximately 350–400 KPIs will be provided as finalized KPI definitions, including formulas, data sources, calculation logic, and required data fields, by the Client. Since KPI development and calculation may require integration with multiple source systems and additional customization, we request that the ICCC scope be limited to configuration and visualization of KPIs based on the finalized definitions and data/API availability.	OIL will review & revert
473	210	6.3. Develop & Deploy Cloud based CCC Application and mobile app | b) Detailed Technical Requirements: CCC Operations | The CCC platform shall be fully integrated commercial off the self (COTS) software platform that provides seamless integration and control mechanism with various Information Technology, Operational	We request you to please ammend the last point of CCC Operations to "The system shall provide customizable dashboards with configurable content and layouts, with information displayed based on the role and access permissions of the respective user."	No Change; To be guided by tender terms;

		Technologies and IOT sensors/ applications/ platforms. • The solution shall provide the "day to day operation", "Common Operating Picture" and situational awareness to the center and participating agencies during these modes of operation. • It shall improve scalability for large and geographically distributed environments. • It shall provide complete view of sensors, facilities, ERP, video streams and alarms in an easy-to-use and intuitive GIS-enabled graphical interface with a powerful workflow and business logic engine. • It shall provide a uniform, coherent, user-friendly, and standardized interface. • The dashboard content and layout shall be configurable, and information displayed on these dashboards shall be filtered by the role of the person viewing dashboard.		
474	210	6.3. Develop & Deploy Cloud based CCC Application and mobile app | b) Detailed Technical Requirements: Unified Value Chain View | The CCC platform should provide a responsive web interface with dynamic overlays, real-time data binding, and multi-monitor layout management; support tablet/mobile responsive breakpoints; integrate REST/GraphQL APIs with pagination, filtering, caching, and data validation pipelines; store data in secure time-series and relational databases.	We request you to kindly amend the clause to make the requirement technology-neutral and implementation-flexible, as the specified capabilities may be achieved through different application, API, and database architectures. Accordingly, we request that the clause be amended as follows: "The CCC platform shall provide a responsive web interface with dynamic overlays, real-time data binding, multi-monitor layout management, and support for tablet/mobile responsive breakpoints. The platform shall support integration through standard APIs with capabilities such as pagination, filtering, caching, and data validation, and shall support secure storage and management of relational / time-series data using an enterprise-grade database."	OIL shall revert
475	210-211	6.3. Develop & Deploy Cloud based CCC Application and mobile app | b) Detailed Technical Requirements: Asset & KPI Data Overlay on Map | The CCC platform should provide real-time sensor visualization with charts, heatmaps, threshold-based colour coding, and animated flow indicators; integrate push-based streaming APIs (WebSocket/SSE) for live updates;	We request you to kindly amend the clause to make the requirement technology-neutral, and accordingly, request that the clause be amended as follows: "The system shall support relational and semi-structured/document data storage using an enterprise-grade database with native JSON/XML storage, querying, and processing capabilities."	No Change; To be guided by tender terms;

		store sensor and visualization data in time-series and document- oriented databases. CCC platform should have a user interface or dashboard and schematics that connects a person to a machine system or a device to achieve human machine interface. The interface should provide displays with modern UI/UX design. System should provide multi-touch and gesture controls such as panning & zooming, swipe, clutter & declutter of graphical layers and a larger view of the process.		
476	211	6.3. Develop & Deploy Cloud based CCC Application and mobile app | b) Detailed Technical Requirements: Data and Analytics Engine | Data archive and logging: stores data feeds from the device engine and external data sources Platform should be able to perform multi-dimensional analysis on incidents data. This should provide capability to do Trends Analysis and provide near real time Stream Analytics, time-shifted or offline analytics on the archived data. Reporting: delivers reports based on events triggered by device engine data and external notifications. CCC platform should have inbuilt Time-series historian (OT Data) with advance data retrieval. Platform should have following advance data retrieval modes like: • Time-in-state • Best fit • Counter • Minimum, maximum, average • Slope • Time weighted average • Cycle and delta • Value state • Interpolated • Integral • Full • Round trip System should be able to handle data coming in from system with mismatched system clocks, preserving the correct data sequence automatically	We request you to kindly amend the above clauses to make the requirements technology-neutral and implementation-flexible, as advanced time-series historian, stream analytics, and specialized data retrieval capabilities may be provided either natively or through integrated enterprise-grade systems. The availability and accuracy of such analytics are also dependent on the data format, frequency, quality, timestamps, and interfaces provided by the respective source systems. Accordingly, we request that the clauses be amended as follows: “The CCC platform shall support data archiving, logging, reporting, trend analysis, near real-time and offline analytics of incident and operational data received from device engines and external data sources. The platform shall support integration with enterprise-grade /OT historian systems for advanced data retrieval and analytics, including time-in-state, minimum, maximum, average, time-weighted average and other applicable analytical functions. The system shall support appropriate timestamp handling and sequencing of data received from source systems with differing system clocks, subject to the availability and accuracy of source timestamps.”	No Change; To be guided by tender terms;

477	212	6.3. Develop & Deploy Cloud based CCC Application and mobile app | b) Detailed Technical Requirements:Operation Management Interface | CCC platform should have a user interface or dashboard and schematics that connects a person to a machine system or a device to achieve human machine interface. The interface should provide displays with modern UI/UX design. System should provide multi-touch and gesture controls such as panning & zooming, swipe, clutter & declutter of graphical layers and a larger view of the process. Extensible library of pre-designed 'intelligent' and customizable visualization objects & templates CCC platform should have a client/server architecture to allow multiple client access to an Ethernet connected server. The workstation shall operate also as a stand-alone workstation/server. Should have built-in, real-time, and historical trending. Stunning graphic visual representation and interaction with operation bringing the right information to the right people at the right time UI/UX for CCC platform should supports multi-monitor. And shall works on both OS based native application as well as web-browser (RDP over HTML). CCC platform shall enable an operator to interact with various devices including network nodes, recorders, input/output (I/O) systems, intelligent transmitters, and other field devices.	We request you to kindly amend the clause to make the requirement web-based and technology-neutral, as native OS-based applications, standalone workstations/servers, and RDP-based interfaces may impose additional infrastructure and licensing requirements. Accordingly, we request that the clause be amended as follows: "The CCC platform shall provide a centralized web-based user interface accessible through standard web browsers, with modern UI/UX, responsive multi-monitor layouts, multi-touch and gesture controls such as pan, zoom, swipe, and clutter/declutter of graphical layers. The platform shall provide customizable visualization objects and templates, real-time and historical trending, and enable authorized operators to monitor and interact with connected devices through available standard interfaces/APIs."	No Change; To be guided by tender terms;

478	213	6.3. Develop & Deploy Cloud based CCC Application and mobile app | b) Detailed Technical Requirements:No-Code New Well, Asset, and KPI Addition | Provide a no-code configuration interface with guided wizards, drag-drop entity design, and template libraries; support workflow orchestration, dynamic schema management, and scalable system design; store configurations and templates in a storage.	We request you to kindly remove this clause, as the specified no-code configuration, dynamic schema management, workflow orchestration, and template library capabilities may require specialized third-party tools, additional licenses, and customization. These requirements may unnecessarily restrict the proposed solution architecture and increase the overall project cost.	No Change; To be guided by tender terms;
479	214	6.3. Develop & Deploy Cloud based CCC Application and mobile app | Enablement for Design Digital Twin functional requirements: | b. The CCC platform shall be able to connect to Digital Twin models through secure integration interfaces. c. The CCC platform shall provide an embedded Digital Twin viewer within the CCC UI to access and visualize the Digital Twin models (no separate/external application launch). The embedded Digital Twin experience in CCC shall provide a dashboard/UI for search, retrieval, and collaboration on Digital Twin information.	We request you to kindly clarify whether the Digital Twin models and associated Digital Twin platform/viewer will be provided by the Client/third-party system, and the CCC platform is required only to securely integrate with and embed the Digital Twin viewer within the CCC interface. Further, please clarify whether the scope of the CCC includes development/creation of Digital Twin models, or only integration and visualization of models provided through standard APIs/integration interfaces.	Phase-1 requires secure integration with Digital Twin models/platforms and an embedded viewer within the CCC UI for search, retrieval, visualization and collaboration. Creation of detailed Digital Twin models is not part of SOW. The bidder shall provide the integration, embedded viewing capability and associated licences required for the offered solution.
480	Part-3, BEC, Cl. 3.2 — Criterion C Part-4, Section-II, Cl. 4.16	"...to enable seamless integration of enterprise and departmental IT systems—such as ERP, EAM, HSE, GIS, monitoring, and other business applications—along with the establishment of real-time and batch data pipelines for ingestion into centralized IT or business data lakes and analytics platforms." "The platform shall provide 2D/3D visualizations of assets, processes & value-chain, including field layouts, surface facilities, pipeline routes, and drilling infrastructure. These visual layers shall support interactive navigation and shall be GIS-based map and multi-layer visualization where applicable."	•Please clarify the overall scope and expected role of GIS within the CCC solution. • To integrate with the existing GIS data and applications, which are on ESRI, we propose a new GIS installation/platform at CCC. •Kindly confirm whether such GIS platform is included in the scope of supply. We would also recommend using the same/common GIS platform for CCC and other applicable locations to facilitate seamless integration, visualization and data sharing. •Kindly confirm the existing GIS data availability which will be integrated in CCC •Please clarify whether the GIS platform is expected to be on-premises, cloud-based or hybrid, and whether the Bidder is responsible for providing the required GIS software, licences, infrastructure and implementation. •Please also clarify the expected GIS capabilities, including 2D/3D visualization of field layouts, surface facilities, pipeline routes, drilling infrastructure and other assets; integration with existing ArcGIS/ESRI datasets and	The tender does not mandate any specific GIS platform. Bidders may propose proprietary or open-source GIS technologies, provided the solution fully meets the functional, performance, scalability, interoperability, and visualization requirements specified in the tender. The proposed GIS component shall support industry-standard geospatial data formats and services and shall be capable of integrating with the overall CCC platform. The bidder shall provide all software, subscriptions, licenses, usage rights, support arrangements, and associated components necessary for deployment, operation, maintenance, administration, and integration of the GIS functionality during the contract period. No additional software procurement by OIL shall be required for achieving the specified GIS functionalities. The platform shall provide support 2D/3D visualization, geospatial context, interactive navigation, and multi-layer representation of assets, facilities, networks, and operational information.

	BOQ Item A6.24 BOQ Item A7.4 / B7.4	"The application should support various media files such as videos, PDFs, images, web browsers, Excel sheets, GIS applications / MAPS support." "Visualize 3D models and GIS datasets from applications such as Petrel, ArcGIS, etc."	applications; support for GIS maps with associated PDFs, images, videos, Excel files and web applications; and visualization of 3D models/datasets Esri offers comprehensive geospatial capabilities, including ready-to-use basemaps such as Imagery, Streets, Topographic, Terrain and Light/Dark Gray Canvas, as well as ArcGIS Living Atlas of the World, which provides access to curated, authoritative datasets such as demographics, boundaries, transportation, environmental, land use/land cover, imagery and elevation data, complemented by extensive 2D mapping, visualization, editing, spatial analysis and geoprocessing capabilities.	
481	BOQ Item A7 / B7 — 3D Immersive Simulation System Section 6.3, Functional Requirement Group, Point (j) Section — Digital Twin Enablement, Point (b) Section — Digital Twin Enablement, Point (c)	"...designed for geological exploration and analysis, training and simulation and digital twins' presentation. The system shall support a wide range of industry-leading 3D CAD and visualization software without requiring file conversions..." "Allow zoom, pan, and rotate with smooth 3D rendering and real-time equipment health indicators." "b. The CCC platform shall be able to connect to Digital Twin models..." "c. The CCC platform shall provide an embedded Digital Twin viewer within the CCC UI to access and visualize the Digital Twin models (no separate/external application launch)..."	•Please confirm which ArcGIS-supported and 3D/CAD data formats (e.g., DWG/DXF, Revit RVT, IFC, Civil 3D) are required to be natively supported under this scope •Please specify the functional GIS capabilities required from an application perspective — 2D mapping/analysis, 3D scene visualization, field data capture, network tracing, and dashboard-based monitoring •Please confirm the number of named users or concurrent seats expected to require 3D data visualization capabilities specifically	OIL will review & revert
482	BOQ Item A7.4 / B7.4 — Software Compatibility Layer	"Visualize 3D models and GIS datasets from applications such as Petrel, ArcGIS, etc."	Please confirm whether the GIS-based 3D visualization / ArcGIS application requirement applies only to the Corporate Office and FHQ Duliajan, or whether it is also required at RF Jodhpur and PHQ Guwahati. For each applicable location, please clarify the expected deployment architecture (on-premises, cloud or hybrid), required server/storage/network/GPU infrastructure, number of GIS/CCC users and users required for field offices. Please also clarify whether GIS functionality is required through desktop, web and/or mobile clients in across offices	OIL will review & revert

483	Section 6.3, Functional Requirement Group IV — Geospatial Asset Management, Point (a)	"Provide an interactive GIS-based map for real-time visualization of all assets across geographically distributed locations (plants, pipelines, stations, fields, warehouses, utilities, etc.)."	•Please clarify whether real-time alarms, asset status and sensor data from SCADA and other systems are required to be displayed on the GIS map, and whether integration between SCADA and GIS is required. •What would be the expected input/interface for real-time integration, such as a streaming service, API or database-level integration?	OIL will review & revert
484	Section 6.3, Functional Requirement Group IV — Geospatial Asset Management, Point (a) Section 6.3, Functional Requirement Group VI — Event & Alarm Management, Point (d) CCC Operations Section 6.3, Functionality: "Asset & KPI Data Overlay on Map"	"Provide an interactive GIS-based map for real-time visualization of all assets across geographically distributed locations (plants, pipelines, stations, fields, warehouses, utilities, etc.)." "Offers GIS-based alarm mapping and clustering for spatial visualization of events across wells, pipelines, and facilities." "It shall provide complete view of sensors, facilities, ERP, video streams and alarms in an easy-to-use and intuitive GIS-enabled graphical interface with a powerful workflow and business logic engine." "The CCC platform should provide real-time sensor visualization with charts, heatmaps, threshold-based colour coding, and animated flow indicators; integrate push-based streaming APIs (WebSocket/SSE) for live updates; store sensor and visualization data in time-series and document-oriented databases."	• Please clarify the expected functionality of the Field Mobile Application, including whether GIS-based capabilities such as interactive maps, asset locations, GPS, geofencing, field data collection, geotagging and offline maps are required. • Please confirm whether a dedicated GIS application is required for field data collection and whether Esri field capabilities, are expected to be used for field mapping, data collection and location-based workflows. • Please provide the expected number of field users and devices, including the number of concurrent users, if applicable. Esri provides a comprehensive set of field and low-code/no-code capabilities through applications such as ArcGIS Field Maps and ArcGIS Survey123, enabling field users to view and update GIS assets, capture GPS and geotagged information, conduct inspections and surveys, and collect data online or offline. These capabilities can be complemented by ArcGIS Dashboards for real-time visualization and monitoring, along with Esri's low-code/no-code application capabilities for rapidly configuring web and field applications to support specific operational workflows.	OIL will review & revert
485	Section 6 — IT/OT Systems Integration list (Row: Drone Surveillance)	"Drone Surveillance — On-prem — Safety & Intrusion detection; Annotated images & videos; Route survey coverage."	•Please clarify the expected scope of GIS integration with the Drone/UAV Surveillance solution. Specifically, please confirm whether GIS is expected to ingest, manage, process and/or visualize drone/UAV imagery, videos, route-survey data, flight paths, inspection locations and safety/intrusion events. •Please also clarify whether the requirement includes image processing and image-based feature/anomaly extraction, or whether the scope is limited to integration and visualization of processed drone outputs within the GIS/CCC interface.	OIL will review & revert

486	BOQ Item A7 / B7 — 3D Immersive Simulation System Section — Digital Twin Enablement, Point (b) Section — Digital Twin Enablement, Point (c)	"...designed for geological exploration and analysis, training and simulation and digital twins' presentation." "b. The CCC platform shall be able to connect to Digital Twin models..." "c. The CCC platform shall provide an embedded Digital Twin viewer within the CCC UI to access and visualize the Digital Twin models (no separate/external application launch)..."	• Please clarify the expected scope of a Digital Twin whether it is intended primarily as a 3D visualization/model of assets and facilities, or whether it is expected to include additional capabilities such as real-time monitoring, integration with SCADA/IoT and other operational data, asset status, alarms, analytics, simulation and other operational workflows. • Please clarify what is meant by the Digital Twin Viewer, including its expected functionality and where it is intended to be used (e.g., CCC platform, web application or other applications). • Please confirm the expected number of Digital Twin users, including the number of users who will only view/interact with the Digital Twin and the number of users who will be required to create, edit, update or manage the Digital Twin models and associated data. • Please also clarify the expected 3D model/input formats	The CCC Platform shall be capable of integrating with and embedding available Digital Twin models, 3D asset models, or equivalent visualization models
487	116	A4.1.5	The current specification refers to AES-128 or better encryption. We r request to clarify and/or amend the clause to allow products utilizing AES-128 or stronger encryption with validated cryptographic security modules, including FIPS validated modules or equivalent industryrecognized cryptographic validation standards.	No change, to be guided by tender terms
488	117	A4.1.17	HDR and Stereoscopic 3D support are specialized features generally required for controlware driving 3D display or Visual setup. Such requirements unnecessarily restrict participation of IP KVM extenders Brands if the end-use application does not specifically require full canvas of large display	No change, to be guided by tender terms
489	118	A4.1.31	Source Control - Need clarification on the fucntionality, from user persective	The operators should be able to interact with visualized content and connected sources through a touch-enabled interface supporting standard gestures such as zoom, pan, navigation, source selection, and other appropriate multi-touch interactions where supported by the source application and system architecture. Bidders may propose equivalent or superior solutions. However, the functionality for multi-touch interaction and gesture-based control of visualized content shall remain available as specified in the tender.

490	117	A4.1.25	The requirement for a 'Multifunctional Keyboard with Programmable Keys' is proprietary feature associated with a specific manufacturer only. Specifying such a feature may unnecessarily restrict competition and limit participation by other qualified and proven vendors whose solutions meet the operational and performance requirements of the project. We respectfully request that the specification be revised to focus on functional performance criteria rather than brand-specific or proprietary features, thereby ensuring a fair, open, and competitive bidding process.	Please refer to amendment to be published
491	121	A6.7	The requirement of 24 controller outputs appears disproportionate to the specified LED wall size and resolution. Different LED manufacturers use different controller architectures and output capacities. Therefore, specifying a fixed number of outputs may unnecessarily restrict equivalent solutions. We request that the requirement be modified to 'sufficient outputs to achieve the specified native resolution with the required redundancy and HDR/3D functionality' rather than mandating a fixed output count."	Please refer to amendment to be published
492	149	B4.3.1	HDR and Stereoscopic 3D support are specialized features generally required for controlware driving 3D display or Visual setup. Such requirements unnecessarily restrict participation of IP KVM extenders Brands if the end-use application does not specifically require full canvas of large display.	No change, to be guided by tender terms
493	150	B4.4	"The requirement for a 'Multifunctional Keyboard with Programmable Keys' is proprietary feature associated with a specific manufacturer only. Specifying such a feature may unnecessarily restrict competition and limit participation by other qualified and proven vendors whose solutions meet the operational and performance requirements of the project. We respectfully request that the specification be revised to focus on functional performance criteria rather than brand-specific or proprietary features, thereby ensuring a fair, open, and competitive bidding process."	Please refer to amendment to be published

494	150	B4.4.6	Source Control : Need clarification on the fucntionality, from user persective	The operators should be able to interact with visualized content and connected sources through a touch-enabled interface supporting standard gestures such as zoom, pan, navigation, source selection, and other appropriate multi-touch interactions where supported by the source application and system architecture.
495	153	B6.7	The requirement of 24 controller outputs appears disproportionate to the specified LED wall size and resolution. Different LED manufacturers use different controller architectures and output capacities. Therefore, specifying a fixed number of outputs may unnecessarily restrict equivalent solutions. We request that the requirement be modified to 'sufficient outputs to achieve the specified native resolution with the required redundancy and HDR/3D functionality' rather than mandating a fixed output count."	Please refer to amendment to be published
496	167	C3.1.3	Security and Data Segregation : The current specification refers to AES-128 or better encryption. We r request to clarify and/or amend the clause to allow products utilizing AES-128 or stronger encryption with validated cryptographic security modules, including FIPS validated modules or equivalent industryrecognized cryptographic validation standards.	No change, to be guided by tender terms
497	168	C3.3.1	HDR and Stereoscopic 3D support are specialized features generally required for controlware driving 3D display or Visual setup. Such requirements unnecessarily restrict participation of IP KVM extenders Brands if the end-use application does not specifically require full canvas of large display.	No change, to be guided by tender terms
498	117	C3.4	The requirement for a 'Multifunctional Keyboard with Programmable Keys' is proprietary feature associated with a specific manufacturer only. Specifying such a feature may unnecessarily restrict competition and limit participation by other qualified and proven vendors whose solutions meet the operational and performance requirements of the project. We respectfully request that the specification be revised to focus on functional performance criteria rather than brand-specific or	Please refer to amendment to be published

			proprietary features, thereby ensuring a fair, open, and competitive bidding process."	
499	171	C5.7	The requirement of 24 controller outputs appears disproportionate to the specified LED wall size and resolution. Different LED manufacturers use different controller architectures and output capacities. Therefore, specifying a fixed number of outputs may unnecessarily restrict equivalent solutions. We request that the requirement be modified to 'sufficient outputs to achieve the specified native resolution with the required redundancy and HDR/3D functionality' rather than mandating a fixed output count."	Please refer to amendment to be published
500	178	D3.3.1	HDR and Stereoscopic 3D support are specialized features generally required for controlware driving 3D display or Visual setup. Such requirements unnecessarily restrict participation of IP KVM extenders Brands if the end-use application does not specifically require full canvas of large display.	No change, to be guided by tender terms
501	179	D3.4	The requirement for a 'Multifunctional Keyboard with Programmable Keys' is proprietary feature associated with a specific manufacturer only. Specifying such a feature may unnecessarily restrict competition and limit participation by other qualified and proven vendors whose solutions meet the operational and performance requirements of the project. We respectfully request that the specification be revised to focus on functional performance criteria rather than brand-specific or proprietary features, thereby ensuring a fair, open, and competitive bidding process."	Please refer to amendment to be published

502	182	D5.7	The requirement of 24 controller outputs appears disproportionate to the specified LED wall size and resolution. Different LED manufacturers use different controller architectures and output capacities. Therefore, specifying a fixed number of outputs may unnecessarily restrict equivalent solutions. We request that the requirement be modified to 'sufficient outputs to achieve the specified native resolution with the required redundancy and HDR/3D functionality' rather than mandating a fixed output count."	Please refer to amendment to be published
503	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 113 of 343	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 113 of 343 | A2.8 Refresh Rate :7680 Hz	Request to consider a minimum refresh rate of 3840 Hz or higher, which is widely accepted as the industry standard for professional indoor fine-pitch LED displays and provides excellent visual performance, flicker-free viewing, and broadcast compatibility while enabling wider OEM participation.	No Change; To be guided by tender terms;
504	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 113 of 343	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 113 of 343 | A2.18 Protection and Surface Treatment :Anti-Scratch, Anti-Dust, Anti-Moisture, Anti- Collision, Anti-Glare, Anti-Static, Anti-Moiré, Front Water-Proof	IP50 is an established industry standard for indoor control room and command center applications and adequately ensures protection against dust and operational wear.	No Change: To be guided by Tender Terms
505	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 113 of 344	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 113 of 344 | BIS and Low Blue light / Eye Comfort Certifications	Request to mention BIS to be provided and Low Blue Light/Eye Comfort certification optional . Eye Comfort certifications vary across manufacturers and may unnecessarily restrict competition	OIL will review and revert
506	B2 Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components Page no 145	B2 Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components Page no 145 | B2.7 Refresh Rate :7680 Hz	Request to consider a minimum refresh rate of 3840 Hz or higher, which is widely accepted as the industry standard for professional indoor fine-pitch LED displays and provides excellent visual performance, flicker-free viewing, and broadcast compatibility while enabling wider OEM participation.	No Change; To be guided by tender terms;

507	B2 Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components Page no 146	B2 Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components Page no 146 | B 2.17 Protection and Surface Treatment :Anti-Scratch, Anti-Dust, Anti-Moisture, Anti-Collision, Anti-Glare, Anti-Static, Anti-Moiré, Front Water-Proof	IP50 is an established industry standard for indoor control room and command center applications and adequately ensures protection against dust and operational wear.	No Change: To be guided by Tender Terms
508	B2 Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components Page no 146	B2 Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components Page no 146 | BIS and Low Blue light / Eye Comfort Certifications	Request to mention BIS to be provided and Low Blue Light/Eye Comfort certification optional . Eye Comfort certifications vary across manufacturers and may unnecessarily restrict competition	OIL will review and revert
509	D2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount Page 175	D2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount Page 175 | D 2.8 Refresh Rate :7680 Hz	Request to consider a minimum refresh rate of 3840 Hz or higher, which is widely accepted as the industry standard for professional indoor fine-pitch LED displays and provides excellent visual performance, flicker-free viewing, and broadcast compatibility while enabling wider OEM participation.	No Change; To be guided by tender terms;
510	D2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount Page 176	D2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount Page 176 | D 2.18 Protection and Surface Treatment :Anti-Scratch, Anti-Dust, Anti-Moisture, Anti-Collision, Anti-Glare, Anti-Static, Anti-Moiré, Front Water-Proof	IP50 is an established industry standard for indoor control room and command center applications and adequately ensures protection against dust and operational wear.	No Change: To be guided by Tender Terms
511	D2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount Page 176	D2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount Page 176 | BIS and Low Blue light / Eye Comfort Certifications	Request to mention BIS to be provided and Low Blue Light/Eye Comfort certification optional . Eye Comfort certifications vary across manufacturers and may unnecessarily restrict competition	OIL will review and revert

512	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343 | A2.26 Number of Inputs: Required number of Inputs to achieve Pixel-to-Pixel Resolution in Stereoscopic 3D & HDR10+ and additional 20% spare input ports	LED Controller is connected to LED Tiles only and take input from IPKVM decoders and Oil India input sources will only directly connected to IPKVM Encoders so additional spares in LED Controller are not required Request you it to change: Required number of Inputs to achieve Pixel-to-Pixel Resolution in Stereoscopic 3D & HDR10+	No Change: To be guided by Tender Terms
513	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343 | A2.27 Number of Outputs (RJ45/ OFC): Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode and additional 10% for Spare Output ports	LED Controller is connected to LED Tiles only and take input from IPKVM decoders and Oil India input sources will only directly connected to IPKVM Encoders so additional spares in LED Controller are not required Request you it to change: Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode	No Change: To be guided by Tender Terms
514	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343 | A2.27 Number of Outputs (RJ45/ OFC): Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode and additional 10% for Spare Output ports	LED Controller is connected to LED Tiles only and take input from IPKVM decoders and Oil India input sources will only directly connected to IPKVM Encoders so additional spares in LED Controller are not required Request you it to change: Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode	No Change: To be guided by Tender Terms
515	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343 | A2.27 Number of Outputs (RJ45/ OFC): Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode and additional 10% for Spare Output ports	LED Controller is connected to LED Tiles only and take input from IPKVM decoders and Oil India input sources will only directly connected to IPKVM Encoders so additional spares in LED Controller are not required Request you it to change: Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode	No Change: To be guided by Tender Terms
516	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343 | A2.29 Features: - Hot-swappable input and output cards - Frame synchronization: image should be played smoothly, without any stuck, frame loss, tearing or piercing - Should supports HDR10+ and Stereoscopic 3D Function - Auto monitoring and fault alarms should be available	Request you to remove Hot-swappable input and output cards which is specific to one OEM only makes other OEM participation rigid	OIL will review & revert

517	Tender NO. CDH2516P27 A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 116 of 343	Tender NO. CDH2516P27 A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 116 of 343 | A4.1.6 True Redundancy and High Availability: The True Redundancy and High Availability (HA) framework should ensure that the system remains fully operational under any fault condition — whether network, hardware, power, or controller-related: 1. Controller-Level Redundancy – dual synchronized controllers (active/standby). 2. Network-Level Redundancy – dual switches, VLAN separation, and redundant fiber paths. 3. Power-Level Redundancy – dual independent power supplies for each node. 4. Device-Level Redundancy – duplicate TX/RX units for critical feeds and displays.	These specs are one OEM Specific which makes other OEM participation rigid request you to change the specs as per below: True Redundancy and High Availability: The True Redundancy and High Availability (HA) framework should ensure that the system remains fully operational under any fault condition — whether network, hardware, power, or controller-related: 1. Controller-Level Redundancy – dual synchronized controllers (active/standby). 2. Network-Level Redundancy – dual switches, VLAN separation 3. Power-Level Redundancy – dual independent power supplies for controller node	OIL will review & revert
518	Tender NO. CDH2516P27 A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343	Tender NO. CDH2516P27 A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343 | A4.1.30 Display: Minimum 10.1" LCD touch display, resolution 1280x800 @60Hz Contrast: min. 500:1, typical 700:1 Brightness: min. 300 cd/m2, typical 400 cd/m2	These specs are one OEM Specific which makes other OEM participation rigid request you to change the specs as per below: Display: Minimum 10.1" LCD touch buttons to control layouts	OIL will review & revert
519	Tender NO. CDH2516P27 A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343	Tender NO. CDH2516P27 A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343 | A4.1.31 Source Control: The touch display should support, multi touch control of any connected source with zoom in zoom out gestures etc.	These specs are one OEM Specific which makes other OEM participation rigid request you to change the specs as per below: Source Control: The touch buttons should support of control layout of any connected source	The intent of the clause is to enable operators to interact with visualized content and connected sources through a touch-enabled interface supporting standard gestures such as zoom, pan, navigation, source selection, and other appropriate multi-touch interactions where supported by the source application and system architecture. Bidders may propose equivalent or superior solutions. However, the functionality for multi-touch interaction and gesture-based control of visualized content shall remain available as specified in the tender.

520	Tender NO. CDH2516P27 A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343	Tender NO. CDH2516P27 A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343 | A4.1.32 Environment Control: The Operator Console should provide customizable layout for environment control for controlling lights, HVAC, doors, height adjustments of consoles etc.	These specs are one OEM Specific which makes other OEM participation rigid request you to change the specs as per below: Environment Control: The Operator Console should provide customizable layout	OIL will review & revert
521	Tender NO. CDH2516P27 A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343	Tender NO. CDH2516P27 A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343 | A4.1.35 Programmable Touchscreen Display: - Operators should be able to create custom layouts with soft-keys and role-based menus. - Operators shall, via a role-based desktop interface, be able to preview, route authorized sources/layouts between their workstation, the video wall and other room displays; securely share windows - Operator Consol should dynamically adapt to user profiles, reflecting permissions and assigned sources. - Operator Consol should support real-time feedback for source selection, wall presets, and communication channels.	These specs are one OEM Specific which makes other OEM participation rigid request you to change the specs as per below: Programmable Operator Console: - Operators should be able to create custom layouts with soft-keys and role-based menus. - Operators shall, via a role-based desktop interface, be able to preview, route authorized sources/layouts between their workstation, the video wall and other room displays; securely share windows - Operator Consol should dynamically adapt to user profiles, reflecting permissions and assigned sources. - Operator Consol should support real-time feedback for source selection, wall presets, and communication channels.	OIL will review & revert
522	2.7.1.9. Page 327 of 343 The Video Wall solution should comply with relevant international standards, including:	2.7.1.9. Page 327 of 343 The Video Wall solution should comply with relevant international standards, including: | The Video Wall solution should comply with relevant international standards, including: •ISO 9001:2015 – Quality Management System •ISO 45001 – Occupational Health & Safety Management System (or equivalent) •ISO 14001:2015 – Environmental Management System (or equivalent)	Request to consider following certification so as to protect sensitive operational and business information from cyber threats, unauthorized access, data breaches, and system compromise. •ISO 9001:2015 – Quality Management System •ISO 27001:2022 – Information Security Management System •ISO 45001 – Occupational Health & Safety Management System (or equivalent) •ISO 14001:2015 – Environmental Management System (or equivalent)	No Change: To be guided by Tender Terms

523	Page 188	Part-4 Sec-II (6.1.a)	Clarification on Dedicated Core Allocation: Please clarify whether all 192 physical CPU cores across the 4 VMware VCF host servers are dedicated solely to the OT Data Lake workload or if they will be shared with other virtualized applications. This is critical for sizing the Enterprise Data Platform (e.g., Cloudera Data Platform) subscription licensing correctly on a per-core/per-node basis.	OIL will review & revert
524	Page 188	Part-4 Sec-II (6.1.a)	We understand this is minimum available HW and Bidder/OEM can propose more than this minimum based on the compute calculated against requirements. Please confirm	Yes
525	Page 192	Part-4 Sec-II (6.1.b)	Clarification on Software Licensing Metric: Traditional Enterprise Data Lake Platforms (like Cloudera Data Platform) are licensed per physical compute node/core/RAM/Storage rather than per tag. Kindly confirm if Oil India allows OEMs to offer Data Lake platform licenses based on standard compute/core/storage metrics that comfortably ingest and process up to 100,000+ tags without per-tag restrictions.	Please refer to amendment to be published
526	Page 188 & Page 195	Part-4 Sec-II (6.1.a & 6.1.b)	Clarification on Data Ingestion Volumetrics & Storage Sizing: To ensure the proposed 120 TB total NVMe server storage and SAN storage integration adequately support 100,000 tags retained online for 10 years, please clarify: 1. Expected average sampling/polling frequency per tag (e.g., 1 sec, 5 sec, 10 sec). 2. Average payload size per event/tag. 3. Estimated daily raw uncompressed data ingestion volume (GB/TB per day).	OT Data Storage shall be provided by OIL
527	Page 203	Part-4 Sec-II (6.2.b)	Request you to please share the volumetric for each of data source in table format as mention in last row in this sheet.	To be finalised during blueprint/design

528	Page 193	Part-4 Sec-II (6.1.b)	Request you to please share the volumetric for each of data source in table format as mention in last row in this sheet.	To be finalised during blueprint/design
529	Page 203	Part-4 Sec-II (6.2.b.II)	Kindly confirm that the Data Lake platform must support storing and processing subsurface data in open, non-proprietary storage formats (e.g., Apache Iceberg, Apache Parquet) to ensure integration with OSDU-compliant middleware and analytics engines.	The solution should be capable to ingest OSDU-compliant data
530	Page 231	Part-4 Sec-III (SCC Part-A)	Alignment with OEM Software Lifecycle: Enterprise software versions evolve rapidly. We request Oil India to clarify that OEMs may provide major software version upgrades/migrations during the 5-year AMC period to align with published OEM Product Lifecycle policies, provided all updates and upgrades are supplied at no extra software license cost to OIL.	All Software updates and upgrades must be provided to OIL free of cost during the OEM Software Lifecycle
531	Page 195 & Page 248	Part-4 Sec-II (6.1.b) & SCC Part-D (6)	Mandating Open-Source platform to Prevent Vendor Lock-in: To ensure full data ownership, long-term data portability, and zero vendor lock-in, we request Oil India to mandate that the Data Lake platform store raw and curated data in standard open-source platform supporting formats (e.g., Apache Iceberg, Apache Parquet, ORC). Please confirm if this is acceptable.	Solution to be designed as per requirements
532	Page 220 & Page 195	Part-4 Sec-II (8.3 & 6.1.b)	Centralized Security, Fine-Grained Access & Data Lineage: Kindly confirm that the Data Lake platform must support fine-grained Role-Based Access Control (RBAC), Attribute-Based Access Control (ABAC), dynamic column-level data masking, row-level filtering, and automated end-to-end data lineage tracking (e.g., Apache Ranger & Apache Atlas) to govern all data interactions.	To be as per tender requirements

533	Page 187	Part-4 Sec-II (6.1.a.i)	Clarification on Allocation & Performance of Existing SAN Storage: The RFP states that the VCF cluster shall utilize OIL's existing HPE Primera A670 SAN Storage. Kindly specify: 1. Dedicated SAN storage capacity (TB) allocated for the OT Data Lake. 2. Guaranteed IOPS/throughput allocated on the SAN array for Data Lake workloads.	500 TB
534	Page 192 & Page 196	Part-4 Sec-II (6.1.b)	Asset Contextualization Scope & Scale: The RFP mentions contextualization and asset modeling for 50,000 tags. Please clarify: 1. Total estimated number of physical equipment assets (e.g., wells, pumps, compressors, gathering stations). 2. Will pre-built asset templates be provided by OIL or created by the bidder during blueprint design?	The number of assets fill be finalized during design phase. The bidder shall develop the required asset models, hierarchies and contextualization for the specified tag scope during blueprinting, using available OIL information and stakeholder inputs.
535	Page 199	Part-4 Sec-II (6.1.b)	The RFP mandates handling an inbound event rate of 150,000 events/sec. what is the avg size of each packet so we can size how much data is expected per second	Bidders shall size the proposed solution based on the specified tag capacity, event-rate requirements, data retention requirements, integration requirements, visualization requirements, and scalability objectives defined in the tender.
536	Page 199 & Page 247	Part-4 Sec-II (6.1.b Clause rrr & Sec-III SLA)	Disaster Recovery (DR) & Business Continuity Plan (BCP) Scope: Please clarify if a secondary Disaster Recovery (DR) site setup is required for the OT Data Lake. By text support disaster recovery- we understand that Diaster recovery set up is needed. Please confirm.	DR is not required
537	NA	Volumetrics Related - Please share details in asked if possible as per the table as its important for sizing the platform	Data Source Type (Eg, RDBMS, APIs, SFTP, etc) Data Type Data Ingestion Rate per day(Gb/day) Compression ratio in source system in case data compressed while inserting in source system Historical data size	Pleas refer to amendment in cloud infra

538		SITC of Video Conferencing, Audio systems, 5nos 30X 4K PTZ Conference Cameras and wireless presentation device | SITC of Wireless Presentation Device | Wireless Dongles : | Plug and play wireless buttons to cast screen to display without any Wi-Fi configuration by users. 2nos of Wireless dongle to be supplied	We request the following modifications to the specifications to ensure a seamless user experience:- Plug and play wireless buttons to cast screen to display without any Wi-Fi configuration by users, without need to download/run/install any plugin/software. 2nos of Wireless dongle to be supplied to share content via Laptops, Macs, iPad.	No Change; To be guided by tender terms;
539		SITC of Cables, Connectors, Cable cubbies Including USB extenders over IP, Accessories, Network Switches for Data Server Racks, and Miscellaneous Items required for the completion of the project | SITC of USB Extender : | SITC of USB Extender | Supply and Installation of USB Extender for Point to point USB3.0 connectivity for single extension over CAT6A for distance	As the current specifications do not adequately cover the essential technical requirements of this device, we kindly request the inclusion of the parameters listed below to ensure the supply of a compliant and suitable product :- Supply and Installation of USB Extender for Point-to-point USB3.0 connectivity for single extension over CAT6A for 100m distance. Data rate up to 5 Gbps Compatibility with the Windows®, macOS®, Linux®, and Chrome OS™ operating systems Plug-and-play functionality without the need for additional drivers	No Change; To be guided by tender terms;
540		SITC of Video Conferencing, Audio systems, 5nos 30X 4K PTZ Conference Cameras and wireless presentation device | SITC of Video Conferencing Room Codec | SITC of Video Conferencing Room Codec | The Video Conferencing Room Codec shall be equipped with a minimum 4 GHz, 16-core CPU, 64 GB RAM, 1 TB SSD storage, and 48 GB unified graphics memory. The system shall provide a minimum of two Gigabit Ethernet ports and support interoperability with leading video conferencing platforms such as Zoom and Microsoft Teams. It shall include a Zoom Room License along with a Conference Room Connector for SIP/H.323 endpoints with a validity of five years. The solution shall support up to five cameras and four display outputs for Zoom Rooms deployment. It shall also support decoding of video sources from IPKVM for wired content sharing. The codec shall be supplied	The specifications defined for the Video Conference Room Codec seem to reflect a compute device configuration rather than the functional and technical characteristics of an industry-standard video conferencing codec. We respectfully request the Authority to re-examine the requirement and associated specifications to enable bidders to propose the most suitable solution while ensuring fair competition and broader market participation.	OIL shall revert

		with a compatible wireless room controller featuring a minimum 8-inch touch screen. The offered product shall be BIS certified.		
541	117	A4.1.17 | KVM RX – HDR & Stereoscopic 3D Compliant	Please clarify whether HDR and Stereoscopic 3D capability is an essential functional requirement for the KVM system itself, or whether it is primarily required for the video wall/display application. These features are generally application-dependent and may not be required for all control-room sources. If they are not required at the KVM receiver for the intended end application, we request OIL to review this parameter or make it application-dependent, so that technically suitable IP KVM solutions can also participate.	No Change; To be guided by tender terms;
542	118	A4.1.31 | Source Control	Kindly provide further details regarding the expected Source Control functionality from the operator's perspective. Please clarify whether this refers to source selection, switching/routing, preview, management of connected sources, or any other specific functionality expected from the operator console. This will help bidders propose the appropriate solution.	The intent of the clause is to enable operators to interact with visualized content and connected sources through a touch-enabled interface supporting standard gestures such as zoom, pan, navigation, source selection, and other appropriate multi-touch interactions where supported by the source application and system architecture. Bidders may propose equivalent or superior solutions. However, the functionality for multi-touch interaction and gesture-based control of visualized content shall remain available as specified in the tender.
543	121	A6.7 | Video Wall Controller – 24 Outputs	Please reconsider the requirement for a fixed number of 24 outputs. The required number of outputs can vary depending on the LED wall's native resolution, pixel configuration, controller architecture and the manufacturer's implementation. We suggest defining the requirement based on the overall native resolution, required redundancy and HDR/3D performance, while allowing the bidder to determine the appropriate number of outputs necessary to achieve the specified performance. This would allow technically equivalent solutions from different manufacturers to be considered.	Please refer to amendment to be published

544	OT Data Lake System Performance Metrics p.199	OT Data Lake System Performance Metrics p.199	Please share the average event payload size (in KB) per publish cycle for the OT Data Lake.	Exact source-wise volumes, sampling rates and payload characteristics will be assessed and finalized during the blueprint/design phase based on available source-system data. Storage resources for OT Data lake shall be provisioned by OIL
545	Section 6.1.b — p 186	Section 6.1.b — p 186	Please share the average data size (in KB) per tag	An OT tag is typically a few KBs. Storage resources for OT Data lake shall be provisioned by OIL
546	Section 6.1.b — p. 186, Point Y	Section 6.1.b — p. 186, Point Y	Please confirm the hostorical datasize size volume be kept in the online archival	Storage resources for OT Data lake shall be provisioned by OIL
547	Section 6.1.b — p. 187	Section 6.1.b — p. 187	We understand that 500TB SAN is available for the OT datalake storage. Please confirm	Yes
548	Cl. 6.1(ee); p 186	Cl. 6.1(ee); p 186	Please share the data size volume for the 2-year historical migration.	Storage resources for OT Data lake shall be provisioned by OIL

549	Cl. 6.1.b.rrr —	Cl. 6.1.b.rrr —	Please confirm whether a dedicated Disaster Recovery (DR) site/environment is to be proposed for the OT Data Lake.	NO
550	OT Data Lake sizing	OT Data Lake sizing	Pleae suggest total no. of concurrent queries and total no. of concurrent users for the OT data lake	Pl refer to amended clause to be published
551	"PART-4 SECTION-IV SCHEDULE OF RATES (SOR) - IT Data Lake Components"	"PART-4 SECTION-IV SCHEDULE OF RATES (SOR) - IT Data Lake Components"	Please confirm whether the IT/Business Data Lake (compute and storage) is to be hosted on cloud	Please refer to amendment to be published
552	Section 6.2 — P 203	Section 6.2 — P 203	Please share the data volume size for the OSDU related data for the IT/Business Data Lake	OIL will review & revert
553	IT system table — p.203	IT system table — p.203	Please share the data volume sizing for sources mentioned such as SAP and eRTMAC into the IT/Business Data Lake.	Exact source-wise volumes, sampling rates and payload characteristics will be assessed and finalized during the blueprint/design phase based on available source-system data.

554	IT system table — p.203	IT system table — p.203	Please share the expected volume of multimedia data (images/video) to be ingested from sources such as drone surveillance and CCTV analytics.	Exact source-wise volumes, sampling rates and payload characteristics will be assessed and finalized during the blueprint/design phase based on available source-system data.
555	Cl. 6.1.b.vvv (OT, for comparison) — p.200; Section 6.2 — p.201–203	Cl. 6.1.b.vvv (OT, for comparison) — p.200; Section 6.2 — p.201–203	Please specify the expected concurrent user count for the IT/Business Data Lake.	As per tender terms
556	BOQ Item F1 — p.260	BOQ Item F1 — p.260	Please confirm If there is an existing RMQ/Kafka already available in the existing IT enviorment which can be levergaed for the IT datalake	NO
557	Cl. 6.2(m); Annexure-A3 Cl. 3.18 — p.202, 329	Cl. 6.2(m); Annexure-A3 Cl. 3.18 — p.202, 329	Please share the data volume for 2 years historical data from IT systems	Storage resources for OT Data lake shall be provisioned by OIL
558	Cl. 6.2.b.III.i — p.203	Cl. 6.2.b.III.i — p.203	Please confirm whether a dedicated Disaster Recovery (DR) site/environment is to be proposed for the IT/Business Data Lake.	NO

559	IT Data Lake sizing	IT Data Lake sizing	Pleae suggest concurrent queries for the IT data lake	Solution to be designed as per requirements
560	31-32	3.2 – Experience Criteria (A, B, C & D) | Experience is specified in Oil & Gas / Petrochemicals / Power / Utilities / Metals.	Since Utilities is included as an eligible sector under the clause, kindly confirm that experience from Smart City SPV CCC/ICCC projects involving centralized monitoring, integration of IT and OT systems, and management of utility services such as Electricial metering, SCADA, and Water metering shall also be considered under BEC Clause 3.2 (A), (B), (C) & (D), subject to meeting the respective scope and value criteria.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
561	185-186 201	6.1 OT & IoT System Integration 6.2. IT Middleware & Business Data Lake | The solution shall support real-time and historical data acquisition and the OT Data Lake shall be scalable for growing data volumes. The IT/Business Data Lake shall handle structured, semi-structured, unstructured and multimedia data and support near-real-time and batch ingestion.	Please provide the current source data volume for structured, semi-structured and unstructured data, along with the average daily, monthly and yearly data growth for each source/system. This information is required for accurate storage, compute and network sizing.	Detailed source-system versions, interfaces, data volumes, refresh frequencies and historical-data availability shall be assessed and finalized during blueprinting.
562	187-188	Backup Backup / Restoration | Backup shall be carried out using OIL's infrastructure managed with Commvault. The bidder shall assist with backup/restoration policies and restoration drills. The bidder shall facilitate backup and restoration and prepare backup sets for offline backup in cloud or another physical location.	Please confirm whether the existing OIL Commvault infrastructure and licences are sufficient for the proposed OT Data Lake. If additional Commvault capacity or licences are required, please clarify whether these will be provided by OIL India Limited or included in the bidder's scope.	OIL will review & revert

563	187-188	Backup / Restoration | The bidder shall facilitate backup and restoration and prepare backup sets for offline backup in cloud or another physical location.	Please specify the required database/Data Lake backup frequency and backup retention period, including daily, weekly, and monthly retention requirements.	OIL will review & revert
564	192	6.1 OT Data Lake | The system shall support a high availability architecture to ensure that there is no data loss.	Please specify the required RTO and RPO for the OT Data Lake, IT/Business Data Lake, and both transactional and OLAP databases.	OIL will review and revert
565	186-188	6.1 OT Data Lake 6.2. IT Middleware & Business Data Lake | The OT Data Lake shall retain all historical operational data for a minimum period of 10 years with secure archival and retrieval. The Data Lake shall support long-term storage with clear data retention policies, which are to be defined.	Please clarify the online and offline data retention periods for the OT Data Lake, IT/Business Data Lake, OLTP databases, and OLAP databases.	As per tender terms
566	209–211	CCC Application | "The CCC system shall provide elastic scalability, auto-adjusting resources to workload demands to ensure consistent performance during peak operations."	Kindly provide the expected number of concurrent CCC users, peak concurrent sessions, dashboard requests and API transactions for sizing the application infrastructure.	As per tender requirements; pl refer to Para 'CCC & Web Application Users'
567	210	6.3 | a) System Architecture and Core Functional Requirements	Recommendation: Containerized Architecture Proposed Addition: The CCC platform should support a containerized, microservices-based architecture using Kubernetes or equivalent, providing: - Horizontal scalability and automated resource management. - Fault isolation and high availability. - Efficient deployment and upgrades across CCC environments. - Easy scalability for future OT/IT system integrations. Justification: The RFP requires elastic scalability to dynamically handle varying workloads and support peak data ingestion of up to 10× the average operational load. It also requires high availability, redundancy,	No Change; To be guided by tender terms;

			clustering and failover at infrastructure, data and application levels. The architecture is expected to accommodate future system integrations and increasing data volumes without compromising performance. Containerization and microservices will support these requirements through flexible scaling, service-level isolation and simplified deployment and maintenance. Request: Kindly consider including containerized, microservices-based architecture with orchestration and automated scaling as a mandatory CCC platform capability.	
568	210	6.3 | a) System Architecture and Core Functional Requirements	Recommendation: MapGPT Proposed Addition: We request authority to consider and include the MapGPT feature which brings additional operational visiability to authority. The features brings value in terms of operations as ellobrated below.. MapGPT integrates OT Data Lake, IoT, and operational systems to provide - AI-powered geospatial intelligence, - Enabling real-time monitoring of plant and field assets, - scenario-based operational visualizations, - pipeline and refinery analytics, predictive maintenance insights, - and KPI-driven decision support through an intuitive natural language interface. - Correlate incidents with nearby assets, environmental conditions, and operational parameters.	No Change; To be guided by tender terms;
569	210	6.3 | a) System Architecture and Core Functional Requirements	Recommendation: Federated Hub-and-Spoke CCC Architecture Existing Requirement: The RFP envisages the Corporate Office CCC as a strategic hub and CCCs at FHQ Duliajan, RF Jodhpur and PHQ Guwahati for operational monitoring. Proposed Addition: We request authority to consider a Federated Hub-and-Spoke architecture wherein the Corporate Office CCC acts as the central Hub and the location-level CCCs operate as Spokes. The platform should support: - Centralized real-time monitoring and consolidated enterprise dashboards. - Location-wise dashboards, KPIs, alerts and operational workflows. - Hierarchical RBAC for enterprise, location and asset-level access. - Secure data segregation with authorized cross-location analytics. - Continued local monitoring during temporary connectivity disruptions with data synchronization upon restoration. - Easy onboarding of additional locations and systems in the future. Justification: This will provide centralized enterprise visibility while retaining operational autonomy at individual locations, improve scalability and resilience, and align with OIL's requirement for a centralized CCC,	No Change; To be guided by tender terms;

			location-specific dashboards, secure data integration and future scalability. Request: Kindly consider incorporating the above Federated Hub-and-Spoke capability as part of the CCC application requirements.	
570	221	9.1. Phase-wise implementation scope | b. Phase-2 (Future Scope) – Expansion of Data Integration and Introduction of AI/ML Phase-2 shall include advanced capabilities such as AI/ML-driven predictive and prescriptive analytics, what-if scenario modelling, Conversational AI Assistant with NLP, and integration of remaining and new OT/IT systems to expand Command & Control Centre visibility, along with any other enhancements explicitly identified as future scope in this document (post 6 months of stabilization period after Go-live depending on availability of requisite training data).	Please clarify the phase-2 start dates, UAT dates and Go-Live dates	Pl refer to amended clause to be published
571	124	AI-Based Interaction Assistant | The RFP specifies an AI-Based Interaction Assistant for user interaction and decision support.	Please clarify the expected number of registered users, average concurrent users, peak concurrent users, and expected query/request rate (queries per minute) for the AI-Based Interaction Assistant to enable appropriate sizing of the AI/LLM infrastructure.	AI/ML model development, predictive or prescriptive analytics, forecasting, what-if modelling and conversational AI/LLM implementation are not part of Phase-1. The OT and IT Data Lake platforms shall, however, be architected and provisioned to support secure integration with future AI/ML capabilities.
572	124	AI-Based Interaction Assistant | The system should include an advanced AI powered interaction assistant, integrated with the interactive player of the LED wall. By leveraging Large Language Models (LLMs), the AI Assistant should generate accurate, context-aware responses, overlaying insights, operational data, or supporting media (such as videos, PDFs, or schematics) directly onto the LED display.	We propose either self-hosted LLM deployment within Indian Oil Limited's data center or an cloud-based LLM service. Self-hosted deployment ensures that sensitive and critical data remains within IOCL's controlled infrastructure, providing enhanced data security and governance. It can also provide a more predictable and potentially lower long-term TCO for sustained, high-volume usage. We request IOCL to confirm the preferred deployment approach.	Pl refer to amended clause to be published

573	195	b) Key techno-functional requirements: Managing data | dd.The data shall be available online for retrieval for minimum 10 years.	We propose authority for a revised clause, The data for the most recent 2 years shall be maintained in online storage and shall be readily available for dashboards, reporting, analytics, audit, and operational retrieval. Data older than 2 years may be transferred to nearline/archive storage using suitable cost-optimized storage technologies, while ensuring data integrity, security, and retrievability. Archived data shall be restored and made available within a mutually agreed service level whenever required by the Authority.	OIL will review & revert
574	197	Asset Data Contextualization | zz. Notification to users shall be in the form of emails and SMS	Request athority to clarify, (a)who bears recurring SMS gateway costs. (b) will the Authority provide a DLT-registered Sender ID/template approvals	Bidder shall bear the cost;
575	119	Part-4, Sec-II, Cl. 5.1.2 (A5.1 & A5.2); also B5, C4, D4 | A5.1 specifies the processor as 2.4 GHz, 16 core, 32 threads, 24 MB cache. A5.2 specifies the motherboard as dual socket compatible with the specified processor.	The specification names a single processor but requires a dual-socket motherboard, which leaves the populated CPU count ambiguous. Request OIL to confirm whether the requirement is (a) one processor populated on a dual-socket capable board, with the second socket kept vacant for future scalability, or (b) both sockets populated at the time of supply. Across 40 units this single point of ambiguity translates into a very significant price difference, and differing interpretations between bidders would make the L-1 comparison meaningless. If future scalability is the intent, we request the clause be restated as 'dual-socket capable motherboard with one processor populated'.	OIL will review & revert
576	120	Part-4, Sec-II, Cl. 5.1.2 (A5.5); also B5, C4, D4 | A 4 GB server grade graphics card with a minimum of 3 x HDMI ports is required; HDMI converters are permitted where the native output is mDP, DP or USB-C.	Data centre / server grade GPUs are compute accelerators and do not provide display outputs, whereas multi-display output is a characteristic of professional workstation class GPUs. Request OIL to confirm that a professional workstation class GPU with 4 GB or higher memory and three or more display outputs (using the HDMI adapters already permitted in the clause) satisfies this requirement. Confirmation will avoid bidders quoting materially different GPU classes for the same functional outcome.	OIL will review & revert

577	120	Part-4, Sec-II, Cl. 5.1.2 (A5.7); also B5, C4, D4, and A8.3.5 | Operating system specified as Windows 11 Enterprise LTSC / Pro.	Windows 11 Enterprise LTSC is available only under volume licensing arrangements and carries a materially different cost from Windows 11 Pro and from Windows 11 IoT Enterprise LTSC. Request OIL to confirm: (a) that Windows 11 Pro is acceptable for these rack-mounted source units, which operate within the CCC network with no general end-user or internet-facing role; (b) whether OIL's existing Microsoft enterprise agreement can be extended to cover these 40 units, in which case the licences may be excluded from the bidder's scope. Either confirmation would remove a large and avoidable cost from every bid.	OIL will review & revert
578	120	Part-4, Sec-II, Cl. 5.1.2 (A5.8); also B5, C4, D4, and A8.3.8 | Microsoft Office LTSC and antivirus with internet security are required on each computing rack server, and separately on each delegate computing unit.	The 40 rack servers function as rack-mounted dashboard and application sources assessed over IP-KVM and are not general-purpose productivity endpoints. Request OIL to confirm whether Microsoft Office is required on all 40 units or may be limited to a nominated subset. We note that Cl. 6.1 (clause mmm) separately requires an Excel add-in tool for retrieval and monitoring of OT data lake data, which may be the underlying intent; if so, request confirmation of the actual number of Office licences required and at which positions. Reducing the Office licence count on units that will not be used for document authoring is a direct and material saving to OIL without any loss of functionality.	OIL will review & revert
579	187, 190	Part-4, Sec-II, Cl. 6.1 (a)(i) and Cl. 5 of A1.16 | The bidder shall utilise OIL's existing HPE Primera A670 500 TB SAN storage and integrate the VCF solution with it; the majority of application workloads shall be hosted on the SAN storage; and OIL shall create and export the required storage LUNs.	Request OIL to provide, for accurate solution sizing and lifecycle design: (a) the present utilised and free usable capacity on the HPE Primera A670 array; (b) the usable capacity, number and size of LUNs that OIL will commit to this project at Go-Live; (c) whether that committed capacity is sufficient to accommodate the mandated 10-year OT data retention (Cl. 6.1 y) and the 2-year historical data migration, or whether OIL will augment array capacity during the contract period and at whose cost; (d) the remaining OEM support validity of the array and the current firmware level. Without these inputs the local NVMe tier sizing, data lifecycle policy and archival design cannot be finalised, and bidders will be compelled to build in capacity contingency.	Details to be shared during solution blue-printing

580	187, 260	Part-4, Sec-II, Cl. 6.1 (a)(i); SOR item E4 | The OT Data Lake solution is to be deployed at OIL's Data Centre at FHQ Duliajan; the bidder shall supply the rack servers and software licences, and OIL shall provide the required rack space. SOR item E4 reads 'SITC of Server & accessories for OT Data Lake', 4 nos.	Request OIL to confirm: (a) the number of rack units to be made available, and whether the server racks, rack PDUs and in-rack cabling are OIL-provided or fall within the bidder's scope under 'accessories'; (b) the power capacity (kW) per rack, the power redundancy available (A/B feeds) and the cooling capacity at the FHQ Duliajan Data Centre, since each 2U server with 2 x Xeon 6 processors, 512 GB DDR5 and 30 TB NVMe will present a substantial per-rack load; (c) the number of free 25 GbE ports available on the existing Dell EMC S5296F ToR switches and free 32 Gbps ports on the Cisco MDS-9148V SAN switch; (d) whether the switch-side SFP28 and 32G FC transceivers are in OIL's or the bidder's scope, as A1.5 and A1.9 only address the server-side transceivers and patch cords. Each of these determines whether additional items must be priced.	OIL will review & revert
581	188	Part-4, Sec-II, Cl. 6.1 (a)(v), A1.3 | Processor specified as minimum 2 x Intel Xeon 6 Series processors with Granite Rapids-D architecture or later, 24 cores per CPU, 3.0 GHz base frequency or higher, 128 MB cache or higher.	We understand that the Granite Rapids-D family within the Intel Xeon 6 range is positioned for edge and network-optimised single-socket system-on-chip platforms, whereas mainstream dual-socket 2U servers and VMware vSAN ReadyNode configurations are built on the Granite Rapids-SP platform (Xeon 6700P / 6500P series). A requirement for a dual-socket, 2U, vSAN ReadyNode certified server on Granite Rapids-D may therefore have limited or no availability from mainstream server OEMs. Request OIL to confirm that Intel Xeon 6 processors of the 6700P/6500P (Granite Rapids-SP) series, meeting or exceeding 24 cores per CPU, 3.0 GHz base frequency and 128 MB cache, are acceptable. Confirmation is essential to enable competitive participation by multiple server OEMs; a specification satisfied by only one platform would restrict competition and inflate the L-1 price.	OIL will review & revert
582	188, 190	Part-4, Sec-II, Cl. 6.1 (a)(v), A1.7; and Cl. 3 of A1.16 | A1.7 requires a minimum 30 TB usable enterprise-grade NVMe SSD storage per server using SSDs of minimum 1.92 TB each (120 TB across 4 servers). A1.16 (3) states that the majority of the application workloads shall be hosted on OIL's existing HPE Primera SAN storage.	These two requirements appear to provision the primary workload capacity twice — once as local NVMe on the hosts and again on the existing SAN. Request OIL to confirm the intended datastore architecture: (a) whether vSAN is to serve as the primary datastore with the Primera SAN as secondary, or the SAN is primary with the local NVMe serving as a vSAN/VCF management domain and performance or cache tier; (b) if the latter, whether the local NVMe requirement may be reduced to the capacity genuinely required for the VCF management domain and cache tier. 120 TB of enterprise NVMe is among the single largest hardware cost elements in the entire BOQ; if the workloads reside on the SAN, this capacity would remain largely	OIL will review & revert

			unutilised while being fully paid for by OIL. A right-sized NVMe requirement would produce a substantial reduction in every bid.	
583	189	Part-4, Sec-II, Cl. 6.1 (a)(v), A1.12 | The proposed servers shall be VMware vSAN ReadyNode certified (or vSAN certified, as applicable), certified/validated for the latest version of VMware Cloud Foundation, and the proposed server model shall be listed in the latest Broadcom Compatibility Guide for the proposed VCF version as published on the official Broadcom website.	Request OIL to confirm: (a) the specific VCF version against which compatibility will be evaluated, since 'latest version' will change between bid submission and delivery; (b) whether a vSAN Certified Node or an all-flash configuration validated by the OEM, supported by a written OEM compatibility undertaking, is acceptable where a matching ReadyNode SKU for the specified processor generation is not yet published on the guide; (c) the cut-off date on which the Broadcom Compatibility Guide will be referenced for the purpose of technical evaluation, so that all bidders are assessed against the same published listing. This will avoid a technically compliant and competitively priced offer being disqualified on account of a listing that changes after bid submission.	OIL will review & revert
584	119, 189	Part-4, Sec-II, Cl. 6.1 (a)(v), A1.15; read with Cl. 5.1.2 (A5) and Cl. 7 | A1.15 requires supply, installation and commissioning of the OT Data Lake rack servers with comprehensive 5-year OEM support from the date of commissioning at the highest level of support available with the OEM. No equivalent OEM support requirement is stated for the control room computing rack servers at A5/B5/C4/D4.	Request OIL to confirm whether back-to-back comprehensive OEM support is required for the 40 control room computing rack servers and, if so, for what term — 5 years from commissioning, or covering the full 70-month contract period — or whether these units are to be maintained solely under the bidder's AMC with spares held by the bidder. In the absence of this clarification some bidders will include 5-year OEM comprehensive support on 40 servers and others will not, and the resulting bids will not be comparable on a like-for-like basis.	OIL will review & revert
585	191	Part-4, Sec-II, Cl. 6.1 (a)(v), A1.17 (point 4) | If the existing ToR switches, SAN switches, management switches or SAN storage are replaced, upgraded or reconfigured during the contract period, the bidder shall carry out all necessary reconfiguration and migration activities to ensure uninterrupted operation of the solution at no additional cost to OIL.	These are OIL-owned assets and any decision to replace, upgrade or reconfigure them rests entirely with OIL. The number, timing, scale and nature of such events over a 70-month period cannot be assessed at bid stage, with the result that every bidder must load an arbitrary and unquantified contingency into its price. Request OIL to consider one of the following: (a) treat any OIL-initiated replacement, upgrade or reconfiguration of these assets as a change request, with effort and timeline mutually agreed and paid at the pre-agreed manday rates under SOR item K1; or (b) limit	OIL will review & revert

			the no-cost obligation to one such event during the contract period, with subsequent events handled as change requests. Either approach would allow bidders to remove the contingency from their base price and would reduce the cost to OIL, while preserving the bidder's obligation to maintain continuity of service.	
586	191, 192	Part-4, Sec-II, Cl. 6.1 (a)(v), heading A2 and A2.1; A3.2 (c); read with A1.15 | The heading of A2 reads 'VMWare Cloud Foundation with Production Support (24 X 7) & Subscription for 5 years', while A2.1 requires the subscription to cover the entire processor cores of the servers 'for entire duration of the CCC project'. A3.2 (c) requires other OS licences to be sourced for the 'entire duration of the CCC project'. A1.15 requires 5-year OEM hardware support from commissioning.	The contract duration is 70 months (10 months implementation followed by 60 months AMC), so a 5-year subscription and the 'entire duration of the CCC project' are not the same period, and the two formulations differ by approximately 10 months. Request OIL to state a single definitive term for (a) the VCF subscription and production support, (b) the Windows Server and other OS licences, and (c) the server hardware OEM support — whether 60 months from Go-Live or 70 months from LOA. On 192 cores of VCF and Windows Server, a 10-month difference is a very substantial cost element; unless a single term is stated, bidders will price different periods and the L-1 comparison will not reflect equivalent scope.	OIL will review & revert
587	192	Part-4, Sec-II, Cl. 6.1 (a)(v), A2.2 (b) | Components of the VCF licences include 'VMware vCenter Server 9 or higher Standard Term License per Instance - 192 Instances'.	vCenter Server is licensed per instance, and a four-node VMware Cloud Foundation deployment requires one vCenter Server instance (two if a standby instance is desired for management resilience). The figure of 192 corresponds to the processor core count applicable to items A2.2 (a), (c), (d), (e) and (f), and appears to have been carried over inadvertently to the per-instance item. Request OIL to confirm that the requirement is 1 (or 2) vCenter Server instances and not 192. If the figure is retained as stated, this single line item would inflate every bid by an amount exceeding the entire balance of the software stack, would not deliver any usable functionality to OIL, and would materially distort the overall lowest-cost evaluation. This is respectfully submitted as the single most significant correction sought in this tender.	OIL will review & revert

588	192	Part-4, Sec-II, Cl. 6.1 (a)(v), A3.1 and A3.2 | A3.1 requires Microsoft Windows Server 2025 Datacenter or later, licensed for 192 cores. A3.2 requires the licences to be subscription based, not tied to the hardware, capable of deployment on different hardware after the validity of the former hardware has expired, and mapped to OIL's Tenant ID.	Under Microsoft's perpetual volume licensing, Windows Server Datacenter is licensed against the physical cores of a specific host and is not hardware-portable, whereas hardware independence, subscription treatment and tenant mapping are characteristics of the CSP subscription route. Request OIL to confirm: (a) that a CSP or cloud subscription based Windows Server licence is the intended commercial construct; (b) whether Datacenter edition is mandatory, or whether Standard edition with the required number of operating system environments is acceptable — since the OT data lake and VCF management workloads may not require unlimited Windows virtualisation rights, and the edition choice is a material cost differentiator on 192 cores; (c) whether OIL's existing Microsoft agreement may be leveraged for these licences. Please also confirm whether Windows Server is required at all if the OT data lake platform and its database components are Linux-based, in which case licensing 192 cores of Datacenter edition would be redundant.	OIL will review & revert
589	192, 200, 215	Part-4, Sec-II, Cl. 6.1 (b)(b); Cl. 6.1 clause vvv; Cl. 6.3 (g) to (j) | Cl. 6.1 (b)(b) provides for 25 named users for the 5-year subscription period. Clause vvv requires the OT Data Lake visualization tool to handle up to 500 simultaneous connections. Cl. 6.3 (g) to (j) enumerate total CCC and web application users as 55 (15 operators on 24x7 shifts, 10 supervisors/engineers/analysts, 25 executives/management and 5 admin/power users).	Request OIL to confirm the definitive concurrency and licensing basis for the OT Data Lake visualization layer, given that 500 simultaneous connections is approximately twenty times the 25 named users specified for the subscription and nine times the total enumerated user population of 55. Specifically, please confirm whether the figure of 500 simultaneous connections is a design headroom or architectural capability statement rather than a licensing requirement. If licences are to be sized to 500 concurrent sessions, the subscription cost would increase by an order of magnitude for the full 20 quarters without any corresponding operational benefit to OIL, and would be borne by OIL in the contract price.	Pl refer to amended clause to be published
590	186, 201, 260	Part-4, Sec-II, Cl. 6.1 (ee) and Cl. 6.2 (m); SOR items E5 and F6 | The bidder shall migrate a minimum of two years of historical data (two completed financial years and the current year) from all integrated OT and IT systems, including time-series sensor data, events/alerts, SCADA logs and enterprise application data, and is responsible for extraction, transformation, data quality checks,	Migration effort and cost are driven principally by data volume, tag or record count per system, source archive product and version, and the availability of an extraction interface, none of which are specified in the tender. Request OIL to provide, for each system in the OT and IT integration lists, an indicative data volume (GB/TB and tag or record count), the historian or database product and version, and confirmation that OIL will make the source data extractable and will provide the necessary access and OEM support. Without these inputs bidders will price on widely divergent assumptions and the resulting per-system	OIL will review & revert

		metadata mapping, contextualisation and ingestion.	rates will not be comparable; a common data volume baseline published at pre-bid stage would allow all bidders to quote precisely and competitively.	
591	202	Part-4, Sec-II, Cl. 6.2 (a)(b) | Compute resources shall be provisioned such that CPU and RAM utilisation do not exceed an average of 60%; any sustained utilisation beyond this threshold shall be deemed a resource shortfall and the bidder shall provision additional capacity at no extra cost to OIL.	In a cloud-native deployment, elastic scaling through auto-scaling groups or managed scale sets is entirely within the bidder's control, and additional capacity is added automatically on demand within seconds. A static average utilisation ceiling of 60% therefore compels permanent over-provisioning of reserved capacity of approximately 1.67 times the actual steady-state requirement, which is billed to OIL for all 20 quarters without any performance benefit. Request OIL to consider: (a) relaxing the threshold to 80% average utilisation, supported by a committed and auditable auto-scaling policy; or (b) replacing the utilisation metric altogether with outcome-based service levels (dashboard page load and query response time, ingestion latency, and availability), against which the bidder would remain fully accountable. Either approach would materially reduce the quoted cloud subscription cost to OIL over the contract with no reduction in delivered performance, and would be consistent with Annexure-A3 Cl. 6.14 and 6.20, which themselves require elastic scalability and cost optimisation.	OIL will review & revert
592	214, 331	Part-4, Sec-II, Cl. 6.3 (a)(ii) to (v); Annexure-A3, Cl. 6.2 to 6.5 | All traffic initiated towards the proposed public cloud must be routed through OIL's existing Azure landing zone; any data transmission cost from the offered public cloud to OIL's landing zone must be factored by the bidder; additional security gateway or connectivity components (NGFW or VPN gateway) must be factored in the bidder's subscription; and a federation/identity service must be factored to establish SSO using OIL's Azure AD.	To enable these three cost elements to be priced on a comparable basis, request OIL to provide: (a) an indicative monthly data transfer volume between the CCC cloud environment and OIL's Azure landing zone, or confirmation that egress charges arising within OIL's own Azure landing zone are on OIL's account; (b) the available bandwidth and the existing connectivity arrangement at the landing zone (IPsec VPN or ExpressRoute), and whether the OIL-side gateway is already provisioned or is to be supplied by the bidder; (c) whether OIL's existing Microsoft Entra ID (Azure AD) tenant and licences will be used for federation and SSO for the 55 enumerated users, or whether the bidder must procure identity licences. In the absence of these inputs, bids for identical scope will vary substantially, and OIL will not be comparing like with like.	Please refer to amendment to be published

593	331-332	Annexure-A3, Cl. 6.6, 6.7 and 6.8 | OIL shall have full access and audit rights to the offered cloud subscription; the bidder must grant Global Administrator access to OIL to the newly created subscription; and the CSP must be from the MeitY empanelled major cloud service providers with deployment in data centres within India.	Request OIL to confirm whether the cloud subscription is to be raised in the bidder's name with OIL granted administrative and audit access, or directly in OIL's name with the bidder appointed as the managing partner. This determines whether cloud charges pass through the bidder's books (with the consequent GST impact on a contract evaluated on a GST-inclusive basis with no ITC to OIL) or are billed directly to OIL. Further, if OIL holds an existing enterprise discount arrangement or committed spend agreement with a MeitY-empanelled CSP, we request that the applicable discounted rate card be disclosed and extended to this procurement so that all bidders quote cloud consumption on the same rate basis. Cloud subscription over 20 quarters is one of the largest recurring cost heads in this tender, and a common rate card would ensure the L-1 outcome is decided by solution efficiency rather than by differing CSP commercial arrangements between bidders.	Please refer to amendment to be published
594	260, 262	SOR items E1, F1, F4, F5, G1, G2; Table B - Payment Terms, item 9 | SOR items E1 (OT Data Lake software licence subscription), F1 (IT Data Lake middleware licence subscription), F4 (cloud compute), F5 (cloud storage), G1 (SaaS cloud visualization software subscription) and G2 (field mobile app subscription) are each quoted for 20 quarters. Table B item 9 provides for these items to be paid quarterly post Go-Live.	Cloud compute and storage, middleware and platform licences and the visualization platform will necessarily be consumed from approximately the fifth to seventh month of the 10-month implementation phase, for environment build, system integration, historical data migration and UAT, as required by milestones 4, 5 and 6 of the Implementation & Delivery Schedule. However, only 20 quarters (60 months) are provided for and payment commences only post Go-Live. Request OIL to confirm whether: (a) the cost of cloud resources and subscription licences consumed during the implementation phase is to be included within the lump-sum implementation items (E2, F2 and G3); or (b) additional quarters will be paid over and above the 20 quarters against these line items. This represents approximately three to four quarters of cloud and licence cost, and unless treated uniformly it will be included by some bidders and omitted by others, distorting the L-1 comparison.	OIL will review & revert
595	332	Annexure-A3, Cl. 6.15 | The solution architecture must be designed to be cloud service provider agnostic, enabling portability between different cloud platforms; in case of necessary provider changes, the bidder shall be responsible for migration, installation and recommissioning of the system.	Request OIL to confirm: (a) that this obligation is triggered only where a provider change is necessitated by the bidder's default or by the loss of the chosen CSP's MeitY empanelment, and that a change of provider at OIL's election will be handled as a change request with mutually agreed effort and cost; (b) that this requirement does not preclude the use of the chosen CSP's managed or platform-as-a-service offerings. A strictly portable, infrastructure-as-a-	OIL will review & revert

			service only architecture carries a significantly higher run cost and higher administration effort over 20 quarters than an equivalent solution using managed services, and confirmation on this point would allow bidders to offer the more economical architecture.	
596	256, 258, 259, 260	SOR items A16, B12, C8, D8, E6 and F7 | SOR items A16, B12, C8 and D8 require a lump-sum price for 'Any Other Item required towards physical infra' at each location, and items E6 and F7 require a lump-sum price for 'Any other item required for OT/IT Data Lake set-up, Integration'.	These six items require a price against an entirely undefined scope, while Annexure-A3 Cl. 8.2 separately places all unforeseen hardware, software and licences at the bidder's cost. Pricing an undefined lot has no objective basis, and each bidder will necessarily insert a different contingency amount, which directly distorts the overall lowest-cost (L-1) comparison and may determine the award on the basis of contingency assumption rather than on price or solution quality. Request OIL to consider: (a) deleting these six items and relying on Annexure-A3 Cl. 8.2; or (b) prescribing a uniform nominal or token value for these items to be adopted by all bidders; or (c) defining the anticipated scope and quantities. Any one of these would materially improve the comparability of bids.	Refer to amendments to be published
597	334	Annexure-A3, Cl. 8.1 and 8.2 | The bidder shall deliver a complete solution including all software, hardware and licences sufficient for the full scope, and shall be responsible for any additional items discovered as necessary during implementation at no extra cost. If at any time during implementation the bidder determines that additional hardware, software or licences are necessary — whether or not specified in the bid documents — the bidder shall procure, deliver, install and commission those items at its own cost.	OIL has itself prescribed the server quantity and configuration (A1.1 to A1.18), the licence core counts (A2, A3), the tag capacity, the named user count and the cloud line items, leaving the bidder no latitude to size these elements. Request OIL to confirm that: (a) where an augmentation becomes necessary as a consequence of a specification fixed by OIL — for example the number of servers, processor core count, licence quantity, tag count, concurrency or user count — the augmentation will be treated as a change request and not at the bidder's cost; and (b) the clause is intended to apply to items reasonably inferable from the stated scope of work, and not to omissions in OIL's own specifications. Without this confirmation, every bidder must load an open-ended risk premium into its base price, which increases the cost to OIL and does not improve the certainty of delivery.	OIL will review & revert

598	222	Part-4, Sec-II, Cl. 9.2, Implementation & Delivery Schedule (milestones 3 and 4) | Blueprint design and requirement finalisation, including approved technical design documents, IT hardware and BoQ specifications, is due at T0+2 months; delivery of all equipment and materials under BoQ items A, B, C and D together with delivery and inspection certificates, FAT reports and manufacturer test certificates is due at T0+6 months.	This allows approximately four months from design approval for procurement, manufacture, import and customs clearance, staging and FAT of long-lead items including the custom curved LED display systems, the IP-KVM and video wall processing suite, and 40 rack servers on the specified Intel Xeon 6 platform. Request OIL to confirm: (a) whether T0+6 months is a hard milestone for the purpose of liquidated damages under Part-4, Section-III Cl. 4.0; (b) whether OIL will consider a milestone-wise or item-wise split of the delivery date so that long-lead imported items may be delivered against a later agreed date without attracting liquidated damages; (c) whether FAT at the OEM's or bidder's facility abroad, witnessed remotely, is acceptable in lieu of physical witnessing. A realistic schedule removes the expediting and air-freight premium that all bidders would otherwise have to include.	OIL will review & revert
599	OT Data Lake System Performance Metrics p.199	OT Data Lake System Performance Metrics p.199	Please share the average event payload size (in KB) per publish cycle for the OT Data Lake.	Exact source-wise volumes, sampling rates and payload characteristics will be assessed and finalized during the blueprint/design phase based on available source-system data. Storage resources for OT Data lake shall be provisioned by OIL
600	Section 6.1.b - p 186	Section 6.1.b - p 186	Please share the average data size (in KB) per tag	An OT tag is typically a few KBs. Storage resources for OT Data lake shall be provisioned by OIL
601	Section 6.1.b - p. 186, Point Y	Section 6.1.b - p. 186, Point Y	Please confirm the hostorical datasize size volume be kept in the online archival	Storage resources for OT Data lake shall be provisioned by OIL

602	Section 6.1.b - p. 187	Section 6.1.b - p. 187	We understand that 500TB SAN is available for the OT datalake storage. Please confirm	Yes
603	Cl. 6.1(ee); p 186	Cl. 6.1(ee); p 186	Please share the data size volume for the 2-year historical migration.	Storage resources for OT Data lake shall be provisioned by OIL
604	Cl. 6.1.b.rrr -	Cl. 6.1.b.rrr -	Please confirm whether a dedicated Disaster Recovery (DR) site/environment is to be proposed for the OT Data Lake.	NO
605	OT Data Lake sizing	OT Data Lake sizing	Please suggest total no. of concurrent queries and total no. of concurrent users for the OT data lake	Pl refer to amended clause to be published
606	OT Data Lake Rack Servers - Pg 186	OT Data Lake Rack Servers - Pg 186	Please confirm that 4 servers are the base for the OT lakehouse. Any additional servers/compute required based on final sizing shall be supplied by the bidder at additional cost.	Yes; Bidder has factor any additional cost

607	3.7 Pg #328	3.7 Pg #328	For archived data, what are the expected retrieval timelines and accessibility requirements? are there any business-critical datasets that must remain immediately accessible throughout their retention period? Should retention, archival, and purge policies be managed centrally across both the OT Data Lake and IT Middleware/Data Lake, or should separate policies be defined for each environment?	To be assessed and decided during implementation phase
608	3.8 Pg #328	3.8 Pg #328	Are there specific compression requirements or target storage reduction ratios for different data types (e.g., sensor time-series data, historian data, logs, images, documents, seismic data), and are there any approved compression standards that must be used? What are the acceptable performance requirements for data retrieval and analytics on compressed data? Should data be queried directly in compressed format, or is decompression latency acceptable during retrieval?	OIL will review & revert
609	OT Data Lake - Source System Landscape & Protocol Requirements, p.192-195	OT Data Lake - Source System Landscape & Protocol Requirements, p.192-195	The RFP lists an illustrative set of OT/IoT source systems (GMS SCADA, Field Processing SCADA, STF, CTF/ITF, CBUS, NBPL/NSPL, CGGS/FGGS/GCS Hebeda, RTPMA/Wellhead) and separately requires out-of-the-box support for 12 named protocols, with no third-party converters or protocol-conversion development permitted. Is this the complete and final list of source systems for this project, or are there additional systems to include? For each system - listed and any additional ones - please confirm the OEM/product version, tag count, physical location, and which of the 12 mandated protocols it uses, flagging any system that does not use one of them.	OIL will review & revert
610	Not addressed in RFP	Not addressed in RFP	Does OIL currently operate any historian software? If yes, please share the product, version, tag count, retention period, and current utilization.	No

611	Not addressed in RFP	Not addressed in RFP	If a historian exists, is the new OT Data Lake meant to replace it, run alongside it, or simply consume data from it as one more source?	No historian exists
612	Not addressed in RFP	Not addressed in RFP	Is the OT Data Lake required only to read/monitor OT data, or is any write-back or control capability expected?	No write-back or control capability is required
613	Section 6.1(ttt), p.198	Section 6.1(ttt), p.198	Is the '150,000 events per second' ingestion figure a rate the system must sustain continuously, a peak it must briefly absorb, or a one-time acceptance-test target?	The requirement of 150,000 events/sec refers to the minimum inbound raw data ingestion capability of the OT Data Lake platform.
614	Section 6.1(uuu), p.198	Section 6.1(uuu), p.198	Is the '30,000 evaluations per second' calculation-engine figure sustained, peak, or benchmark-only?	OIL will review & revert
615	Not addressed in RFP	Not addressed in RFP	For each OT source system, how much historical data currently exists, how far back does it go, and how would it be extracted for migration?	Detailed source-system versions, tag counts, payload sizes, sampling rates, interfaces and historical-data availability shall be assessed and finalized during blueprinting.

616	Section 6.1(y), p.185	Section 6.1(y), p.185	Must the full 10 years of OT history remain online at original full-resolution fidelity, or can older data be downsampled or tiered - and what query response time is expected for older data?	Older Data can be tiered
617	Not addressed in RFP	Not addressed in RFP	What RTO/RPO (recovery time/recovery point) targets apply to the OT Data Lake?	NO DR is planned for the OT Data Lake
618	"PART-4 SECTION-IV SCHEDULE OF RATES (SOR) - IT Data Lake Components"	"PART-4 SECTION-IV SCHEDULE OF RATES (SOR) - IT Data Lake Components"	Please confirm whether the IT/Business Data Lake (compute and storage) is to be hosted on cloud	Yes
619	Section 6.2 - P 203	Section 6.2 - P 203	Please share the data volume size for the OSDU related data for the IT/Business Data Lake	OIL will review & revert
620	IT system table - p.203	IT system table - p.203	Please share the data volume sizing for sources mentioned such as SAP and eRTMAC into the IT/Business Data Lake.	Will be shared during implementation

621	IT system table - p.203	IT system table - p.203	Please share the expected volume of multimedia data (images/video) to be ingested from sources such as drone surveillance and CCTV analytics.	Exact source-wise volumes, sampling rates and payload characteristics will be assessed and finalized during the blueprint/design phase based on available source-system data.
622	Cl. 6.1.b.vvv (OT, for comparison) - p.200; Section 6.2 - p.201–203	Cl. 6.1.b.vvv (OT, for comparison) - p.200; Section 6.2 - p.201–203	Please specify the expected concurrent user count for the IT/Business Data Lake.	As per tender terms
623	BOQ Item F1 - p.260	BOQ Item F1 - p.260	Please confirm If there is an existing RMQ/Kafka already available in the existing IT enviorment which can be levergaed for the IT datalake	NO
624	Cl. 6.2(m); Annexure-A3 Cl. 3.18 - p.202, 329	Cl. 6.2(m); Annexure-A3 Cl. 3.18 - p.202, 329	Please share the data volume for 2 years historical data from IT systems	Storage resources for OT Data lake shall be provisioned by OIL
625	Cl. 6.2.b.III.i - p.203	Cl. 6.2.b.III.i - p.203	Please confirm whether a dedicated Disaster Recovery (DR) site/environment is to be proposed for the IT/Business Data Lake.	No

626	IT Data Lake sizing	IT Data Lake sizing	Pleae suggest concurrent queries for the IT data lake	As per tender requirement and solution design
627	AI/ML - Page 221	AI/ML - Page 221	Please confirm OT and IT both datalakes should support the integartion to AI/ML Platform proposed in Phase 2 , AI/ML platform is not a requirement pe se from Datalake	AI/ML model development, predictive or prescriptive analytics, forecasting, what-if modelling and conversational AI/LLM implementation are not part of Phase-1. The OT and IT Data Lake platforms shall, however, be architected and provisioned to support secure integration with future AI/ML capabilities.
628	Section 6.2 - Source System Landscape, p.202	Section 6.2 - Source System Landscape, p.202	Please provide the complete list of IT/enterprise applications feeding the Business Data Lake - including software version, approximate data volume, and connection method for each.	OIL will review & revert
629	Section 6.2.b, III(j), p.201	Section 6.2.b, III(j), p.201	What is the required data retention period for the IT/Business Data Lake?	OIL will review & revert
630	Section 6.2.b, II(f), p.202	Section 6.2.b, II(f), p.202	Please clarify the intended scope of 'OSDU-compliant' for this project - is it schema/data compatibility (including specific data models such as PPDM, RESQML, or PRODML), specific OSDU APIs/services, integration with an existing OSDU platform, or building a new one?	The solution should be capable to ingest OSDU-compliant data

631	Section 6.2.b, I(b), p.202	Section 6.2.b, I(b), p.202	Is WITSML expected as a live, real-time drilling-data feed, or only as a file-upload format? If live, which version and services are in use?	Only as file upload, if required
632	Section 6.2 - Source System Landscape (HR & Admin, Drone, S&E rows), p.202	Section 6.2 - Source System Landscape (HR & Admin, Drone, S&E rows), p.202	Does any data entering the IT/Business Data Lake require classification, masking, or anonymization before storage or display - specifically HR/employee data, named individuals in safety-incident reports, or people visible in drone/CCTV imagery?	Shall be finalised during design blue print based on the type of data
633	Special Conditions of Contract - Data Residency, p.249	Special Conditions of Contract - Data Residency, p.249	Does India's Digital Personal Data Protection (DPDP) Act 2023 apply to this platform, and if so, what compliance obligations are expected?	Shall be applicable, if relevant
634	Section 6.2.b, III(i), p.201	Section 6.2.b, III(i), p.201	What RTO/RPO targets apply specifically to the IT/Business Data Lake?	OIL will review & revert
635	Section 11.3(a), p.223	Section 11.3(a), p.223	Is any direct data exchange or integration required between the OT Data Lake and the IT/Business Data Lake - separate from both independently feeding the CCC application - for use cases such as combined OT+IT analytics or AI/ML? If yes, what form is expected: a shared semantic/master-data layer, scheduled ETL replication, real-time streaming, or something else?	To be guided by tender requirements

636	Network & Security Annexure 7.11, p.332	Network & Security Annexure 7.11, p.332	The RFP specifies an 'OT-DMZ/aggregation' network zone as part of the mandated 5-zone architecture - what is aggregated at this zone, and does that constitute the OT-to-IT data boundary?	Please refer to amended OT Architecture
637	Not addressed in RFP	Not addressed in RFP	Does OIL require a data catalog or business glossary as part of this platform?	To be guided by tender requirements
638	CCC & Web Application Users list, p.214	CCC & Web Application Users list, p.214	Is a formal data classification scheme required, along with a data-governance role distinct from the operational user tiers already defined?	To be guided by tender requirements
639	Not addressed in RFP	Not addressed in RFP	Can OIL provide the priority list of KPIs, along with approved formulas, thresholds, and aggregation rules - flagging which require combining OT and IT/enterprise data?	OIL will review & revert
640	Not addressed in RFP	Not addressed in RFP	What is the current source and format of asset geolocation/GPS data that should be ingested into the Lakehouse for GIS-based mapping?	OIL will review & revert

641	Section 6.1(aaa), p.196	Section 6.1(aaa), p.196	When an event automatically triggers a workorder or workflow notification, which system receives it - an existing OIL system, or is a new workflow engine expected to be built?	OIL will review & revert
642	SLA S4 (Uptime definition), p.243-244; Special Conditions (Inspection), p.230-231; BoQ K3, p.260	SLA S4 (Uptime definition), p.243-244; Special Conditions (Inspection), p.230-231; BoQ K3, p.260	Please confirm the scope boundary for AI/ML capabilities in the base contract - are predictive/prescriptive analytics, forecasting, what-if modelling, and conversational AI included in the base deliverable and subject to standard SLA/O&M obligations, or entirely deferred to a future phase?	AI/ML model development, predictive or prescriptive analytics, forecasting, what-if modelling and conversational AI/LLM implementation are not part of Phase-1. The OT and IT Data Lake platforms shall, however, be architected and provisioned to support secure integration with future AI/ML capabilities.
643	Section 24.1 (SUBCONTRACTING/ASSIGNMENT)	Section 24.1 (SUBCONTRACTING/ASSIGNMENT)	For the project of this size, we request the OIL India to kindly permit the CONTRACTOR to subcontract or engage qualified third-party agencies/subcontractors for execution of identified portions of the services, including specialized, ancillary, or support activities, subject to the COMPANY's prior written approval. We request that the clause be suitably amended to permit the CONTRACTOR to subcontract or engage qualified third-party agencies/subcontractors.	OIL will review & revert
644	Pg. 101	Sec. 2.4 | CCC implementation at CO, FHQ, RF and PHQ	Please provide detailed site-wise scope, floor plans/layouts, existing infrastructure details and site photographs for all four locations to enable accurate estimation of civil, electrical, AV, networking and IT infrastructure requirements.	Bidder are visit site to get these details
645	Pgs. 104–105	Sec. 4.12–4.13 | Integration with SCADA, PLC, DCS, SAP, HSE, E&P Databank, CCTV, etc.	Please provide the complete inventory of IT/OT/IoT systems proposed for integration, including OEM, product/version, protocol/API, number of instances, number of tags/data points, data frequency, data volume and historical data available for each system.	OIL will review & revert

646	Pg. 105	Sec. 4.13 | Additional/future systems	Please clarify that integration with systems not explicitly identified in the current scope will be treated as a change request/additional scope, based on complexity and effort.	OIL will review & revert
647	Pg. 104	Sec. 4.10 | Modelling of wells, networks and surface facilities	Please provide the number of wells, facilities, pipelines, assets and locations to be modelled in the initial implementation.	OIL will review & revert
648	Pgs. 104–105	Sec. 4.11, 4.17 | Future AI/ML capabilities	Please clarify whether the bidder is required to implement production-ready AI/ML models during the current phase, or only provide an architecture/platform capable of supporting future models.	No AI/ML model or conversational-AI development is required in Phase-1. The proposed platform shall be architected for future integration of third-party or custom AI/ML models and conversational capabilities.
649	Pg. 106	Sec. 4.22 | Future scalability	Please clarify the sizing baseline and maximum expected scale for users, data sources, tags, transactions, data ingestion rate, storage and analytical workloads.	Solution to be designed to accommodate for future scalability
650	Pg. 331	Sec. 5.10–5.15 | Near-real-time updates and 10x peak load	Please provide the baseline average and peak data ingestion rate against which the requirement to support up to 10x average operational load should be sized.	Solution design to take care

651	Pg. 331	Sec. 5.10 | Update frequency/latency	Since latency and update frequency materially affect architecture and infrastructure sizing, please provide target values for bid-stage sizing, or confirm that these will be finalized during design and any resulting capacity changes will be treated separately.	OIL shall review & revert
652	Pg. 331	Sec. 5.17 | Additional hardware/software/licenses	Please clarify that this provision applies only to items reasonably identifiable from the stated scope and technical requirements, and that materially changed requirements or additional integrations introduced after contract award will be handled through a change-control mechanism.	Shall be as per tender scope
653	Pgs. 332–333	Sec. 6.1–6.8 | Public cloud and Azure Landing Zone	Please clarify whether the cloud subscription will be procured and owned by OIL, with the bidder responsible for configuration and deployment, or whether the bidder is expected to procure and manage the subscription for the complete contract duration.	Please refer to amendment to be published
654	Pgs. 334–335	Sec. 8.1–8.12 | Complete software, hardware and licenses	The tender states that exact license quantities may be mutually agreed during design. Please clarify how bidders should commercially price licenses whose quantities are not defined at bid stage, and whether a defined baseline quantity will be provided.	Please refer to amendment to be published
655	Pgs. 222–223	Implementation Schedule | Go-Live at T0+10 months	Considering four CCC locations, OT/IT data lakes, multiple integrations, civil works, application development and historical data migration, please confirm whether the 10-month Go-Live timeline is fixed or may be revised based on site readiness, data availability and third-party dependencies.	OIL will review & revert

656	Pgs. 222–223	Implementation Schedule | Historical data migration	Please provide the historical data period, estimated data volume, source systems, formats, data quality and retention requirements for both OT and IT historical data migration.	Storage resources for both OT and IT Data lake shall be provisioned by OIL
657	Pg. 244	SLA | SLA applicability	Please provide the complete SLA KPI matrix, uptime targets, measurement methodology, exclusions, severity definitions, response/resolution timelines and applicable penalties/service credits for all application, infrastructure, integration and cloud components.	Pl be guided by tender requirements
658	AMC section	AMC – 5 Years | O&M	Please provide the expected AMC manpower model, support hours, onsite/remote requirements, locations, number of shifts, L1/L2/L3 responsibilities and minimum staffing levels.	Pl be guided by tender requirements
659	Technical requirements	Data/Backup | Backup & DR	Please provide the required RPO, RTO, backup retention period, backup frequency, DR architecture and DR test frequency for the OT Data Lake, IT Data Lake and CCC application.	DR is not required; Backup frequeny, retention etc shall be as per requirements & shall be finalised during solution design in consultation with OIL. Storage resources for both IT & OT Data Lake shall be provided by OIL
660	33	3.2.1 - Documentary Evidence for Experience Criteria | Clause 3.2.1(a) & (b): Contract document/Work Order/Service Order showing detailed scope of work AND Job Completion Certificate (JCC) or Service Entry Sheet (SES) or Certificate of Payment (COP) on company letter head issued by the Client and supported by Client's certified Job Report.	We request that OIL accept a Work Order containing only the heading and a brief description of the Scope of Work, with the detailed description of the completed work to be recorded in the Job Completion Certificate (JCC). The request arises because Work Orders do not ordinarily set out the detailed Scope of Work; it is instead referenced from separate supporting documents.	Clarified. To be guided as per tender existing clause.

661	33	3.2.1(v) - Experience Criteria | Work executed through 'sub-contracting' shall not be considered for evaluation.	OIL is requested to accept sub-contracted experience for evaluation purposes, subject to the work having been executed for an eligible end-client, and the End Client's name being evidenced in the Work Order and the Job Completion Certificate (JCC). This tender is unusual in that a single contractor is required to deliver hardware, IT and OT data lakes, visualization dashboards, software development and analytics — a combination that the industry has conventionally executed through multiple contracts placed with domain specialists. Given that the scope necessarily draws on several specialist parties, a correspondingly flexible approach to experience and delivery credentials is justified. OIL is accordingly requested to allow bidders to cite sub-contractor experience. As currently drafted, the clause risks excluding specialised dashboard and software companies from bidding.	Oil will review and revert.
662	31 & 32	3.2(B) - Experience Criteria - Similar Work | The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,97,99,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals: OT Data Acquisition & Industrial Data Ingestion: Consumption of both real-time and historical OT/industrial data from OPC UA, OPC DA, OPC HDA, or equivalent industrial data gateways or servers provisioned by the respective OT systems, followed by ingestion of this data into a centralized OT data lake, historian, time-series database, or operational data platform, along with asset-wise data modelling encompassing tag mapping, contextualisation.	Clause 3.2(A)–(D) sets out four qualifying credentials, each drawn from a separate technology discipline. Given this, we seek OIL's confirmation on below point. Where a niche portion of the work will be carried out by a named OEM or sub-vendor, that party's track record will count towards the matching credential, on production of acceptable proof. Such an approach would bring the pre-qualification test into step with the cross-disciplinary execution model that the work itself demands.	Oil will review and revert.

663	40	3.3 Key Perosnnel | The bidder must deploy a Team comprising of minimum Six (06) nos. of experienced key personnel as per the table below for the completion of project till go-live within the Contract period. The Key Personnel should be stationed at the site to ensure on-time delivery of products. The bidder must provide the list of key personnel with the name, designation & minimum experience as described below in Annexure-A2. The distribution of the key personnel is mentioned below:	We request that OIL permit the CVs of independent professionals to be furnished alongside those of payroll staff, so that the strongest available talent can be assigned to the assignment.	OIL will review & revert
664	42	4.0 FINANCIAL EVALUATION CRITERIA: | Annual Financial Turnover from Operations of the Bidder during any of the last three (03) completed financial/accounting years preceding the Original Bid Closing date must be at least INR 32,53,44,000.00. [Annual Financial Turnover of the bidder from operations shall mean- "Aggregate value of the realization of amount made from the sale, supply or distribution of goods or on account of services rendered, or both, by the company (bidder) during a financial year" as per the Companies Act, 2013 Section 2 (91).] Consortium Case: In case of bid from Consortium of Companies, any one of the consortium members shall have an annual financial turnover from operation of minimum INR 32,53,44,000.00 and other members of the consortium shall have an annual financial turnover from operation of minimum INR 16,26,72,000.00, during any of the preceding 03 (Three) financial/accounting years reckoned from the original bid closing date. Net worth of all the members must be Positive for the financial/accounting year preceding the original bid closing date.	We request OIL to lower the annual turnover requirement for non-lead consortium members to INR 8.13 Cr, or exempt such members from the financial BEC where they qualify as MSMEs. This tender cannot realistically be executed by one firm. Section 3.2 of the BEC itself asks for credentials across four projects spanning four unrelated specialisations, which necessarily points to a tie-up between domain leaders bidding as a group. As drafted, the lead member carries the full single-bidder turnover test and every other member carries half of it. Three problems follow: 1. Out of proportion to the technical BEC. Category B is worth INR 2.9799 Cr, Category C INR 2.4988 Cr and Category D INR 37.5 lakh — against which a smaller member must show INR 16.2672 Cr of annual turnover. For Category D, the financial bar stands at 40 times the value of the technical credential it accompanies. 2. Penalises grouped bids. A three-firm group must collectively show twice the turnover demanded of one bidder (100% + 50% + 50%). Firms that come together precisely to give OIL access to best-in-class technology are thereby worse off than a lone bidder. 3. Departs from prevailing norms. Indian public procurement, including in upstream PSUs, ordinarily pegs non-lead members at 20–25% of the single-bidder figure. INR 8.13 Cr is exactly 25% of that threshold here. Left unchanged, the clause will screen out the specialist software and analytics firms best suited to this work — companies materially smaller in revenue than hardware integrators — and thin the field on a technically demanding, strategically significant tender.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.

			Thus we request OIL to - (a) Reduce the annual turnover requirement for non-lead members to INR 8.13 Cr, in line with prevailing public procurement practice; and (b) In the alternative, waive the requirement in respect of an MSME member's own share, per Para 16 of the Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012.	
665	76	24.0 SUBCONTRACTING/ASSIGNMENT - 24.1 | CONTRACTOR shall not subcontract, transfer or assign the contract, or any part under this contract, to any third party(ies). Except for the main services under this contract, CONTRACTOR may sub-contract the petty support services subject to COMPANY's prior written approval. However, CONTRACTOR shall be fully responsible for complete execution and performance of the services under the Contract.	Please allow subcontractors if it is done with OIL knowledge and acceptance.	OIL will review & revert
666	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration, Point No. (aa), Page 186 of 343	Part -4, Section - II, Scope of Work, Technical & Functional Requirements for Control Room Infrastructure, 6. Technical & Functional Requirements for CCC Compute Infrastructure and Services | aa) Tag capacity shall be 50,000 tags initially. The bidder shall ensure proper design of the OT Data Lake solution to process the above tag volume efficiently, with scalability for future expansion up-to 1,00,000 tags. (Page 186 of 343)	We request clarification regarding the total data capacity the infrastructure must support. The document mentions a capacity for a scalability requirement up to 1,00,000 tags in one clause and 2 million tags in another. Please confirm which is the final capacity we must size the hardware for. Additionally, please specify the average data collection frequency (e.g., 1 Sec, 5 sec, or 10 seconds) to be considered for these tags.	the OT Data Lake shall support 50,000 tags initially and be scalable to 100,000 tags
667	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration, Point No. (y), Page 186 of 343	Part -4, Section - II, Scope of Work, Technical & Functional Requirements for Control Room Infrastructure; 6. Technical & Functional Requirements for CCC Compute Infrastructure and Services; | y) OT Data Lake shall retain all historical operational data for a minimum period of 10 years, with secure archival, retrieval, and compliance-aligned storage mechanisms.	As the proposed solution is based on high-frequency time-series data acquisition, the overall data volume will grow continuously over the years. While the system can retain existing data for 10 years, the effective retention period for newly generated data will gradually depend on available storage. we will be considering the no. of tags at existing point of time (as OIL will clarify against query no. 1) in above point no. 1) for hardware infrastructure design. Please confirm our undersranding is correct.	Please be guided by tender terms

668	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration, Page 186 of 343	Part -4, Section - II, Scope of Work, Technical & Functional Requirements for Control Room Infrastructure; 6. Technical & Functional Requirements for CCC Compute Infrastructure and Services | The overall OT Data Lake solution shall adhere to an uptime KPI of 99.95%.	Please clarify the type of high availability architecture which is required to be considered (Hot Redundant or Cold Redundant). In a cold redundant architecture, the backup server remains inactive and is brought online through administrative intervention during a primary failure. This method involves manual failover and potential data restoration from backups. Kindly confirm if this methodology is acceptable to meet the "no data loss" requirement, or if a hot redundant (automatic failover) architecture is mandated.	Hot redundant architecture
669	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration, Point (ee) ; Page 186 of 343	Part -4, Section - II, Scope of Work, Technical & Functional Requirements for Control Room Infrastructure, 6. Technical & Functional Requirements for CCC Compute Infrastructure and Services | ee) The bidder shall migrate a minimum of two (2) years of historical data (wherever available) from all integrated OT and IoT systems into the OT Data Lake. This includes time-series sensor data, events/alerts, SCADA logs, enterprise application data, and any relevant historical datasets required for baseline analytics, trend analysis and model training. The bidder is responsible for extraction, transformation, data quality checks, metadata mapping, contextualization, and ingestion into the target data lakes.	To migrate a two (2) years of historical data from all integrated OT and IoT systems into the OT Data Lake, we request to provide - Volume Size of OT Data - Data Format like SQL, CSV, OPC HDA etc.	Storage will be provided by OIL
670	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration, b) Key techno-functional requirements; Page 193 of 343	Part -4, Section - II, Scope of Work, Technical & Functional Requirements for Control Room Infrastructure, 6. Technical & Functional Requirements for CCC Compute Infrastructure and Services | i. The list of some of the possible use cases that the system shall be capable of delivering are as follows in case require in future: - IoT Sensor Integration & Remote asset monitoring.	Please confirm that IoT Sensor Integration & Remote asset monitoring is not in current scope and will be in future scope as seprate tender/RFP.	Pl refer to amended architecture to be published

671	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration; b) Key techno-functional requirements; Interfacing with operational data sources, point no. (n), Page 194 of 343	Part -4, Section - II, Scope of Work, Technical & Functional Requirements for Control Room Infrastructure 6. Technical & Functional Requirements for CCC Compute Infrastructure and Services | (n.) The Interface application shall support centralized as well as distributed architecture where all interfaces can be installed in the same machine or distributed across the plant on separate machines based on the location of the data source in the plant.	We request to give the clarity on the number of Interface hardware to be considered for data collection to OT Data Lake. We have considered one reduandant interface server/ hardware per location. Please confirm on the same.	Pl refer to amended architecture to be published
672	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration; b) Key techno-functional requirements; Scalability and Architecture; point no. (rrr), Page 199 of 343	Part -4, Section - II, Scope of Work, Technical & Functional Requirements for Control Room Infrastructure; 6. Technical & Functional Requirements for CCC Compute Infrastructure and Services | rrr. The system shall be built on a resilient architecture incorporating high availability, failover mechanisms, redundancy, backup, and support disaster recovery provisions to ensure uninterrupted upstream operations.	The proposed OT data lake do have a capability to support disaster recovery provisions. However, cofiguration of DR will not be a part of current SOW. Please confirm on the same.	Yes
673	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration; Asset Data Contextualization, point no. (nn), Page 196 of 343	Part -4, Section - II, Scope of Work, Technical & Functional Requirements for Control Room Infrastructure; 6. Technical & Functional Requirements for CCC Compute Infrastructure and Services | nn. The system shall allow unification of data from disparate source systems. In addition to time series data coming from the data archival system, the system shall support bringing in the data from external relational database in the form of table lookup. In addition, it shall be possible to manually enter these data into the system.	We need more understanding on the point " it shall be possible to manually enter these data into the system." In this requirement which data are been manually entered in the system and from which medium the data will be manually entered in OT Data lake.	Pl refer to amended architecture to be published

674	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration; Asset Data Contextualization; point no. (aaa); Page 197 of 343	Part -4, Section - II, Scope of Work, Technical & Functional Requirements for Control Room Infrastructure; 6. Technical & Functional Requirements for CCC Compute Infrastructure and Services | aaa. Notification to other system shall be in the form of webservices (SOAP and REST). Using this it shall be possible to trigger automatic workorders or workflows in the external system.	The OT Data lake solution will be capable of Integrating with Third Party system in the form of webservices (SOAP and REST). Real time data/ Notification related data will be shared. Further scope related to trigger automatic workorders or workflows in the external system will be in Third Party System Authority/ Client.	Pl be guided by tender requirements
675	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration; Scalability and Architecture, point no. (rrr), Page 197 of 343	Part -4, Section - II, Scope of Work, Technical & Functional Requirements for Control Room Infrastructure; 6. Technical & Functional Requirements for CCC Compute Infrastructure and Services | rrr. The system shall be built on a resilient architecture incorporating high availability, failover mechanisms, redundancy, backup, and support disaster recovery provisions to ensure uninterrupted upstream operations.	Please clarify the type of high availability architecture required (Hot/Cold Redundant). Specifically, for a cold redundant design, manual intervention is required to start the secondary system and restore operations. Please confirm if this aligns with OIL's operational procedures and recovery time objectives.	Hot redundant architecture
676	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration, a) OT Data Lake Resources Provision, Point No. V, Page 188 of 343	Part -4, Section - II, Scope of Work, Technical & Functional Requirements for Control Room Infrastructure, 6. Technical & Functional Requirements for CCC Compute Infrastructure and Services | v. The bidder shall supply 4 rack mounted servers with appropriate licenses as per the specifications provided below.	Please confirm that the given 4 rack mounted servers are dedicated to host the OT Data lake solution at the central location FHQ Assam. No other applications will be installed in it.	Yes confirmed
677	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration, a) OT Data Lake Resources Provision, Section A1 Technical Specifications for Rack Servers and Licenses, Sub Section, A1.2 to A1.18 Page 188 of 343	Part -4, Section - II, Scope of Work, Technical & Functional Requirements for Control Room Infrastructure, 6. Technical & Functional Requirements for CCC Compute Infrastructure and Services | Section A1 Technical Specifications for Rack Servers and Licenses,	We request to confirm that the given hardware specifications from sr.no. A1.2 to A1.18 are of each individual server amongst the given four servers.	Yes, confirmed

678	3. Current state overview, 3.2. OT & IoT Systems, Page 101 of 343	Part -4, Section - II, Scope of Work, Technical & Functional Requirements for Control Room Infrastructure | 3.2. OT & IoT Systems a) Multiple DCS, PLC, and SCADA-based control systems from various OEMs are deployed across assets and installations in multiple geographies. b) These are broadly categorized into three major groups: FHQ (Field Head Quarter) – Duliajan, PHQ (Pipeline Head Quarter) – Guwahati, and RF (Rajasthan) – Jodhpur.	Multiple DCS, PLC, and SCADA-based control systems from various OEMs are deployed across assets and installations at three major groups: FHQ (Field Head Quarter) – Duliajan, PHQ (Pipeline Head Quarter) – Guwahati, and RF (Rajasthan) – Jodhpur. We request to confirm that OIL will arrange all the data from the different data sources at one single point where data collection/ Interface hardware will be installed at each of three plant as mentioned above.	Pl be guided by amended OT architecture
679	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration,, c) OT System integration scope, Page 198 of 343	Part -4, Section - II, Scope of Work, Technical & Functional Requirements for Control Room Infrastructure; 6. Technical & Functional Requirements for CCC Compute Infrastructure and Services | Integration from various OT systems (DCS, SCADA, etc.) with standard protocols.	OIL will arrange all OT Data sources to be intergrated with OT Data lake in OPC UA/DA, IEC 104, Modbus TCP. We request to confirm on the same that OIL will arrange the data in the above mentioned protocol.	Pl be guided by amended OT architecture
680	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration,, c) OT System integration scope, Page 198 of 343	Part -4, Section - II, Scope of Work, Technical & Functional Requirements for Control Room Infrastructure; 6. Technical & Functional Requirements for CCC Compute Infrastructure and Services | c) OT System integration scope:	We request to provide the communication protocols which will be made available by OIL for the given complete list of OT systems for integration with the centralized OT data lake.	Pl be guided by amended OT architecture
681	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration, a) OT Data Lake Resources Provision, Point No. V, Page 188 of 343	Part -4, Section - II, Scope of Work, Technical & Functional Requirements for Control Room Infrastructure; 6. Technical & Functional Requirements for CCC Compute Infrastructure and Services	The plant level data collection hardwares are not been mentioned in the SOW. We request to add 6 No. (considering the interface redundancy) of Plant level data collection PC/ desktop PC (for Interface). Recommending below mentioned specifictions: RAM: 32 GB, SSD: 1TB Core: 8, Processor Speed: minimum 2.2 GHz, 24" LED monitor or higher with Mouse and keyboard, Minimum 4 No. ethernet 1G Port OS – Windows Server 2022 standard or Higher.	No Change: To be guided by Tender Terms

682	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration, a) OT Data Lake Resources Provision, Point No. V, Page 188 of 343	Part -4, Section - II, Scope of Work, Technical & Functional Requirements for Control Room Infrastructure; 6. Technical & Functional Requirements for CCC Compute Infrastructure and Services	We request to confirm that the other required hardwares (other than rack servers and software licences as specified in this tender) like Firewalls at OT Side & IT Side, Managed switches at Plant and Central Level, GPS Time Server, & required CAT6 Cable will be provided by OIL.	Requirements are as per tender
683	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration; A1. Technical Specifications for Rack Servers and Licenses; A1.18, Licenses;	Part -4, Section - II, Scope of Work, Technical & Functional Requirements for Control Room Infrastructure; 6. Technical & Functional Requirements for CCC Compute Infrastructure and Services | A1.18, Licenses	As a part of OT Datalake solutions, we need clarity from OIL that how we are considering SQL Server license for OT Datalake. For High Availability with Hot redundancy, SQL Enterprise license are required, where for the cold redundancy SQL Standard license are required. Also we request to clarify the suppy scope of respective SQL License. Will it be provided by OIL or Bidder needs to be consider in his scope.	The SQL licence shall be procured by the bidder. A hot-redundant architecture shall be considered.
684	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT; Integration with enterprise system; Page 198 of 343	Part -4, Section - II, Scope of Work, Technical & Functional Requirements for Control Room Infrastructure; 6. Technical & Functional Requirements for CCC Compute Infrastructure and Services | OT Data lake integration scope	Could OIL please provide a complete list of IT systems, and third-party systems that need to be integrated with the centralized OT data lake? Also, please confirm whether the data flow is unidirectional or bidirectional for each third party integration.	Please refer to amended OT Architecture; Data flow will be unidirectional
685	6.3. Develop & Deploy Cloud based CCC Application and mobile app, Point d; Page 204 of 343	Part -4, Section - II, Scope of Work, Technical & Functional Requirements for Control Room Infrastructure; 6. Technical & Functional Requirements for CCC Compute Infrastructure and Services | d. CCC Platform should be able to connect to operational technologies with bi-directional control via native protocols like OPC UA/DA, BACnet IP, MODBUS TCP, Telemetry protocols etc. via tunnelling software wherever required.	Clause 6.3(d) requires the CCC Platform to support bi-directional control of operational technologies via native protocols. Since the primary objective of the OT Data Lake is real-time centralized monitoring and not process control, we request to remove this clause or modify to restrict communication to read-only data acquisition. Bi-directional control from an OT Datalake or IT-tier application into OT networks is not recommended as per Industry best practices and introduces significant operational safety risks.	Control of operations is not envisaged; hence, Bi-directional communication is not required
686	9.2. Phase-1 (Current Scope) implementation timeline, Table - Implementation & Delivery Schedule, Page 221 of 343	Part -4, Section - II, Scope of Work, Technical & Functional Requirements for Control Room Infrastructure; 9. Implementation & Delivery Schedule | Sr. No. 4, Infrastructure Setup (Control Room, IT, Civil, Utilities and Interiors Set-up) at all 4 locations : T0 + 6 Months Sr. No. 5, OT & IT Data Lake	We request to revise the timeline for OT Data Lake Setup & OT System Integration to T0 + 8 Months.	OIL will review & revert

		Setup, OT & IT System Integration : T0 + 7 Months		
687	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 113 of 343	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 113 of 343 | A2.8 Refresh Rate :7680 Hz	Request to consider a minimum refresh rate of 3840 Hz or higher, which is widely accepted as the industry standard for professional indoor fine-pitch LED displays and provides excellent visual performance, flicker-free viewing, and broadcast compatibility while enabling wider OEM participation.	No Change: To be guided by Tender Terms
688	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 113 of 343	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 113 of 343 | A2.18 Protection and Surface Treatment :Anti-Scratch, Anti-Dust, Anti-Moisture, Anti- Collision, Anti-Glare, Anti-Static, Anti-Moiré, Front Water-Proof	IP50 is an established industry standard for indoor control room and command center applications and adequately ensures protection against dust and operational wear.	No Change: To be guided by Tender Terms
689	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 113 of 344	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 113 of 344 | BIS and Low Blue light / Eye Comfort Certifications	Request to mention BIS to be provided and Low Blue Light/Eye Comfort certification optional . Eye Comfort certifications vary across manufacturers and may unnecessarily restrict competition	OIL will review and revert
690	B2 Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components Page no 145	B2 Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components Page no 145 | B2.7 Refresh Rate :7680 Hz	Request to consider a minimum refresh rate of 3840 Hz or higher, which is widely accepted as the industry standard for professional indoor fine-pitch LED displays and provides excellent visual performance, flicker-free viewing, and broadcast compatibility while enabling wider OEM participation.	No Change: To be guided by Tender Terms

691	B2 Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components Page no 146	B2 Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components Page no 146 | B 2.17 Protection and Surface Treatment :Anti-Scratch, Anti-Dust, Anti-Moisture, Anti-Collision, Anti-Glare, Anti-Static, Anti-Moiré, Front Water-Proof	IP50 is an established industry standard for indoor control room and command center applications and adequately ensures protection against dust and operational wear.	No Change: To be guided by Tender Terms
692	B2 Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components Page no 146	B2 Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components Page no 146 | BIS and Low Blue light / Eye Comfort Certifications	Request to mention BIS to be provided and Low Blue Light/Eye Comfort certification optional . Eye Comfort certifications vary across manufacturers and may unnecessarily restrict competition	OIL will review and revert
693	D2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount Page 175	D2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount Page 175 | D 2.8 Refresh Rate :7680 Hz	Request to consider a minimum refresh rate of 3840 Hz or higher, which is widely accepted as the industry standard for professional indoor fine-pitch LED displays and provides excellent visual performance, flicker-free viewing, and broadcast compatibility while enabling wider OEM participation.	Refer to amendments to be published
694	D2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount Page 176	D2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount Page 176 | D 2.18 Protection and Surface Treatment :Anti-Scratch, Anti-Dust, Anti-Moisture, Anti-Collision, Anti-Glare, Anti-Static, Anti-Moiré, Front Water-Proof	IP50 is an established industry standard for indoor control room and command center applications and adequately ensures protection against dust and operational wear.	Refer to amendments to be published
695	D2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount Page 176	D2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount Page 176 | BIS and Low Blue light / Eye Comfort Certifications	Request to mention BIS to be provided and Low Blue Light/Eye Comfort certification optional . Eye Comfort certifications vary across manufacturers and may unnecessarily restrict competition	OIL will review and revert

696	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343 | A2.26 Number of Inputs: Required number of Inputs to achieve Pixel-to-Pixel Resolution in Stereoscopic 3D & HDR10+ and additional 20% spare input ports	LED Controller is connected to LED Tiles only and take input from IPKVM decoders and Oil India input sources will only directly connected to IPKVM Encoders so additional spares in LED Controller are not required Request you it to change: Required number of Inputs to achieve Pixel-to-Pixel Resolution in Stereoscopic 3D & HDR10+	No Change: To be guided by Tender Terms
697	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343 | A2.27 Number of Outputs (RJ45/ OFC): Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode and additional 10% for Spare Output ports	LED Controller is connected to LED Tiles only and take input from IPKVM decoders and Oil India input sources will only directly connected to IPKVM Encoders so additional spares in LED Controller are not required Request you it to change: Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode	No Change: To be guided by Tender Terms
698	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343 | A2.27 Number of Outputs (RJ45/ OFC): Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode and additional 10% for Spare Output ports	LED Controller is connected to LED Tiles only and take input from IPKVM decoders and Oil India input sources will only directly connected to IPKVM Encoders so additional spares in LED Controller are not required Request you it to change: Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode	No Change: To be guided by Tender Terms
699	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343 | A2.27 Number of Outputs (RJ45/ OFC): Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode and additional 10% for Spare Output ports	LED Controller is connected to LED Tiles only and take input from IPKVM decoders and Oil India input sources will only directly connected to IPKVM Encoders so additional spares in LED Controller are not required Request you it to change: Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode	No Change: To be guided by Tender Terms
700	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343	Tender NO. CDH2516P27 II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343 | A2.29 Features: - Hot-swappable input and output cards - Frame synchronization: image should be played smoothly, without any stuck, frame loss, tearing or piercing - Should supports HDR10+ and Stereoscopic 3D Function - Auto monitoring and fault alarms should be available	Request you to remove Hot-swappable input and output cards which is specific to one OEM only makes other OEM participation rigid	OIL will review & revert

701	Tender NO. CDH2516P27 A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 116 of 343	Tender NO. CDH2516P27 A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 116 of 343 | A4.1.6 True Redundancy and High Availability: The True Redundancy and High Availability (HA) framework should ensure that the system remains fully operational under any fault condition — whether network, hardware, power, or controller-related: 1. Controller-Level Redundancy – dual synchronized controllers (active/standby). 2. Network-Level Redundancy – dual switches, VLAN separation, and redundant fiber paths. 3. Power-Level Redundancy – dual independent power supplies for each node. 4. Device-Level Redundancy – duplicate TX/RX units for critical feeds and displays.	These specs are one OEM Specific which makes other OEM participation rigid request you to change the specs as per below: True Redundancy and High Availability: The True Redundancy and High Availability (HA) framework should ensure that the system remains fully operational under any fault condition — whether network, hardware, power, or controller-related: 1. Controller-Level Redundancy – dual synchronized controllers (active/standby). 2. Network-Level Redundancy – dual switches, VLAN separation 3. Power-Level Redundancy – dual independent power supplies for controller node	OIL will review & revert
702	Tender NO. CDH2516P27 A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343	Tender NO. CDH2516P27 A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343 | A4.1.30 Display: Minimum 10.1" LCD touch display, resolution 1280x800 @60Hz Contrast: min. 500:1, typical 700:1 Brightness: min. 300 cd/m2, typical 400 cd/m2	These specs are one OEM Specific which makes other OEM participation rigid request you to change the specs as per below: Display: Minimum 10.1" LCD touch buttons to control layouts	OIL will review & revert
703	Tender NO. CDH2516P27 A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343	Tender NO. CDH2516P27 A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343 | A4.1.31 Source Control: The touch display should support, multi touch control of any connected source with zoom in zoom out gestures etc.	These specs are one OEM Specific which makes other OEM participation rigid request you to change the specs as per below: Source Control: The touch buttons should support of control layout of any connected source	OIL will review & revert

704	Tender NO. CDH2516P27 A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343	Tender NO. CDH2516P27 A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343 | A4.1.32 Environment Control: The Operator Console should provide customizable layout for environment control for controlling lights, HVAC, doors, height adjustments of consoles etc.	These specs are one OEM Specific which makes other OEM participation rigid request you to change the specs as per below: Environment Control: The Operator Console should provide customizable layout	OIL will review & revert
705	Tender NO. CDH2516P27 A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343	Tender NO. CDH2516P27 A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343 | A4.1.35 Programmable Touchscreen Display: - Operators should be able to create custom layouts with soft-keys and role-based menus. - Operators shall, via a role-based desktop interface, be able to preview, route authorized sources/layouts between their workstation, the video wall and other room displays; securely share windows - Operator Consol should dynamically adapt to user profiles, reflecting permissions and assigned sources. - Operator Consol should support real-time feedback for source selection, wall presets, and communication channels.	These specs are one OEM Specific which makes other OEM participation rigid request you to change the specs as per below: Programmable Operator Console: - Operators should be able to create custom layouts with soft-keys and role-based menus. - Operators shall, via a role-based desktop interface, be able to preview, route authorized sources/layouts between their workstation, the video wall and other room displays; securely share windows - Operator Consol should dynamically adapt to user profiles, reflecting permissions and assigned sources. - Operator Consol should support real-time feedback for source selection, wall presets, and communication channels.	OIL will review & revert
706	2.7.1.9. Page 327 of 343 The Video Wall solution should comply with relevant international standards, including:	2.7.1.9. Page 327 of 343 The Video Wall solution should comply with relevant international standards, including: | The Video Wall solution should comply with relevant international standards, including: •ISO 9001:2015 – Quality Management System •ISO 45001 – Occupational Health & Safety Management System (or equivalent) •ISO 14001:2015 – Environmental Management System (or equivalent)	Request to consider following certification so as to protect sensitive operational and business information from cyber threats, unauthorized access, data breaches, and system compromise. •ISO 9001:2015 – Quality Management System •ISO 27001:2022 – Information Security Management System •ISO 45001 – Occupational Health & Safety Management System (or equivalent) •ISO 14001:2015 – Environmental Management System (or equivalent)	No Change: To be guided by Tender Terms

707	31	BEC Clause 3.2(A)	3.2 EXPERIENCE CRITERIA: Bidders should meet all the following experience criteria (A, B, C & D): A. The bidder must have successfully executed/completed “Command & Control Centre Infrastructure Works, which includes supply, installation, integration and commissioning of Command & Control / Integrated Command Centre / War Room facilities including control-room civil & interior fit-out, videowall(s), operator consoles, AV/VC systems and associated utilities” over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals as under: We request you to kindly also accept the relevant similar experience of command control work done in Transport department Uttarakhand, M.P Police, Assam Police, Delhi Transport corporation, Indian Railways through RailTel etc.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
708	31–32	BEC Clause 3.2(B), 3.2(C), 3.2(D)	Kindly remove clause B,C & D and retain only EXPERIENCE CRITERIA A under the Pre-Qualification Criteria.	OIL will review and revert on Experience criteria.
709	16	EMD exemption	We hereby confirm that, we have registered under MSME-SMALL Sevices Category . For EMD of Rs. 2,34,78,000.00/- against we can submitted this (UDYAM REGISTRATION CERTIFICATE) Certificate as per NIT Point- Also confrim we can submit ,Insurance surety Bond : Please confirm	Clarified. Tender is guided by the policy for work Contracts. Insurance surety bond is allowed.
710	1	Clause 2.0(v)(b), Pg 1	1. Extension of Bid Submission Time Original Request: Bid scope is extensive and depends on inputs from multiple OEMs across various locations. We request a 2week extension to the current bid submission deadline of September 4, 2026.	Clarified.

711	2	Clause 2.0(v)(l), Pg 2	Performance Security Reduction Original Request: The performance security is set at 10%, which is unusually high compared to the standard industry practice of 2% to 5%. We request reducing this to standard market rates.	No change.
712	31	Clause 3.1, Part-3 (BEC), Pg 31	Manufacturer's Authorization Form (MAF) Submission Terms Original Request: MAFs are requested for 7 product categories (Video Wall Screen, Video Wall Controller, Servers, VC System, UPS, PAC, and Fire Alarm & Suppression System). Please clarify if MAFs are strictly mandatory from each OEM at the bid submission stage, or if they can be submitted post-LOA for OEMs not yet finalized.	Yes, MAF is mandatory from each OEM as specified in the tender; All MAF must be submitted along with bid
713	31	Clause 3.2(A), Part-3 (BEC), Pg 31	Experience Criteria 'A' – Value Calculation & Scope Flexibility Clarification: Please clarify whether "executed value" refers to gross contract value or certified paid value, and whether GST should be included or excluded. Scope Expansion Requests: Please consider work executed at other facilities like NOCs/SOCs as valid experience alongside Command & Control Centres. Please include Data Center Infrastructure Works within the eligible scope. Please expand the eligible sectors beyond Oil & Gas / Petrochemicals / Power / Utilities / Metals to include Any Government, Semi-Government, PSU, or Private Works.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
714	31	Clause 3.2(A), Part-3 (BEC) PG31	Multi-Criteria Single Project Qualification (Criteria B, C & D) Clarification: Please confirm whether a single reference project covering OT Data Acquisition, IT Middleware Integration, and C&C Applications/Dashboards can satisfy Criteria B, C, and D simultaneously, or if three separate contracts are mandatory.	OIL will review experience criteria.

715	31	Clause 3.2(A), Part-3 (BEC) PG 31	Tender Clause (Experience Criteria 'A') Existing Requirement: The bidder must have successfully completed Command & Control Centre Infrastructure Works, including supply, installation, integration, and commissioning for Command & Control / Integrated Command Centre / War Room facilities (covering civil & interior fit-outs, video walls, operator consoles, AV/VC systems, and utilities). Requested Amendment Proposed Revision: Expand the eligible scope to include Data Center Infrastructure Works alongside Command & Control Centres. Justification: Broadening this criteria will foster greater market participation, promote healthy competition, and yield cost benefits for Oil India.	OIL will review and revert.
716	31	Clause 3.2(A), Part-3 (BEC), Pg 31	Tender Clause (Sector Qualification) Existing Requirement: Command & Control Centre Infrastructure Works (supply, installation, integration, and commissioning of CCC/War Room facilities including civil/interior fit-outs, video walls, operator consoles, and AV/VC systems) executed within the last 7 years must be from the Oil & Gas / Petrochemicals / Power / Utilities / Metals sector. Requested Amendment Proposed Revision: Expand the eligible sector list to include Any Govt. / Semi-Govt. / Govt. Undertaking / Private Works in addition to the specified industry sectors. Justification: Similar projects executed in other government and commercial sectors share the same level of complexity and criticality. Opening the eligibility criteria will drive broader participation, increase competitive bidding, and provide greater cost benefits for Oil India.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
717	32	Clause 3.2(B,C,D), Part- 3 (BEC) PG32	Tender Clause Clarification Request (Criteria B, C, & D) Current Requirement: Criteria B, C, and D stipulate minimum contract value thresholds for OT Data Acquisition, IT Middleware Integration, and C&C Applications/Dashboards respectively. Clarification Sought: Please confirm if a single reference project that encompasses all three functional domains can be submitted to satisfy Criteria B, C, and D simultaneously, or if three separate, distinct project contracts are mandatory.	Clarified. To be guided as per tender clause.

718	31-32	Clause 3.2(B), Part-3 (BEC), Pg 31-32	Tender Clause (Experience Criteria B – OT Data Acquisition) Existing Requirement: Successful completion of at least one project valued at a minimum of INR 2,97,99,000.00 within the last 7 years in the Oil & Gas / Petrochemicals / Power / Utilities / Metals sector, covering: Ingestion of real-time and historical industrial/OT data via standard protocols (OPC UA, OPC DA, OPC HDA, or equivalent). Data integration into a centralized OT data lake, historian, timeseries database, or operational platform. Asset-level data modeling and tag-mapping contextualization. Requested Amendment Proposed Revision: Expand the eligible sector list to include Any Govt. / Semi-Govt. / Govt. Undertaking / Private Works alongside the specified energy and industrial sectors. Justification: Similar OT data ingestion and industrial integration projects executed across other government and private domain facilities demand equal technical complexity. Broadening the criteria will foster broader bidder participation, promote healthy competition, and yield cost benefits for Oil India.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
719	32	Clause 3.2(C), Part-3 (BEC) PG 32	The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,49,88,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals: Enterprise IT & Middleware Integration: The scope covers the design and deployment of IT middleware, enterprise integration platforms, APIs, or ESB (Enterprise Service Hub) solutions to enable seamless integration of enterprise and departmental IT systems—such as ERP, EAM, HSE, GIS, monitoring, and other business applications—along with the establishment of real-time and batch data pipelines for ingestion into centralized IT or business data lakes and analytics platforms. Requested Amendment Proposed Revision: Expand the eligible sector list to include Any Govt. / Semi-Govt. / Govt. Undertaking / Private Works alongside the specified energy and industrial sectors. Justification: Similar OT data ingestion and industrial integration projects executed across other government and private domain facilities demand equal technical complexity. Broadening the criteria will foster broader bidder participation, promote healthy competition, and yield cost benefits for Oil India.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.

720	32	Clause 3.2(D), Part-3 (BEC) PG32	The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 37,50,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals: Command & Control Applications, Dashboards & Decision Support : Delivered an application / dashboard for a Command & Control Centre / Centralised Visualisation Dashboard covering interactive dashboards, real-time analytics, configurable alerts/alarms and automated workflows. Requested Amendment Proposed Revision: Expand the eligible sector list to include Any Govt. / Semi-Govt. / Govt. Undertaking / Private Works alongside the specified energy and industrial sectors. Justification: Similar OT data ingestion and industrial integration projects executed across other government and private domain facilities demand equal technical complexity. Broadening the criteria will foster broader bidder participation, promote healthy competition, and yield cost benefits for Oil India.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
721	33	Clause 3.2.1(v), Part-3 (BEC) PG33	Sub-contracting Experience Clarification Clarification: Please clarify if experience gained as a named sub-contractor with a defined scope (such as a proposed OEM/System Integration partner) will be considered valid for evaluation, given the technology-integration nature of this project.	OIL will review and revert.
722		Clause 30.0, Part-4 Section-I (GCC)	Tender Clause Clarification (Liquidated Damages for Mobilization vs. Go-Live) Existing Provision: Timely Mobilization Liquidated Damages (LD) are set at 0.5% of the total contract value (including mobilization cost) per week of delay, capped at a maximum of 7.5%. Clarification Sought: Please clarify whether the Mobilization LD and the separate Go-Live LD (as outlined in Clause 4.3, Part-4 Section-IV of the SLA) operate independently as cumulative penalties, or if they are subject to a single aggregate liability cap.	SCC Clause shall prevail

723	246	Clause 4.3, Part- 4 Section-IV (SLA) PG 246	Tender Clause Clarification (Liquidated Damages – Go-Live Delay) Existing Provision: Delays in achieving final Go-Live incur Liquidated Damages (LD) at a rate of 0.5% of the Implementation Cost per week of delay, capped at a maximum of 7.5%. Clarification Sought: Please provide an explicit definition of Implementation Cost by cross-referencing the specific line items or sections in the BOQ Price Schedule that constitute this cost, ensuring a transparent and unambiguous basis for LD calculation.	Please refer to Payment Terms for definition of Implementation Cost
724	261	Table B - Payment Terms, Part-4 Section- IV PG 261	Tender Clause Clarification (Payment Milestones) Existing Provision: Payment milestones are tied to the completion of BOQ line items across five distinct locations (Infrastructure Setup, OT/IT Data Lake Setup, and System Integration). Clarification Sought: Please clarify whether milestone payments will be released progressively on a site-by-site / item-by-item basis upon completion, or if payment is contingent on the complete delivery across all five sites under that specific milestone head.	Please refer to Payment Terms amendments ;
725	246	Clause 4.4(6,7,8), Part-4 Section-IV (SLA) PG 246	Tender Clause Clarification (AMC/Hypercare Resource Absence Penalty) Existing Provision: Absence of AMC/Hypercare personnel incurs a penalty of ₹10,000 per person per day, deductible from the quarterly AMC or Hypercare payments, alongside an SLA-based performance penalty capped at 7.5% of the quarterly contract value. Clarification Sought: Please clarify whether the manpowerabsence penalty is subsumed under the 7.5% quarterly SLA penalty cap, or if it applies separately over and above the 7.5% ceiling.	No
726	246	Clause 4.4(5), Part-4 Section- IV (SLA) PG 246	Tender Clause Clarification (AMC Uptime SLA) Existing Provision: A solution uptime SLA of 99.95% is stipulated during the Annual Maintenance Contract (AMC) period. Clarification Sought: Please provide the detailed measurement criteria for the 99.95% uptime requirement, specifically: Evaluation Window: Is uptime calculated on a monthly or quarterly basis? Exclusions: Are planned/scheduled maintenance windows excluded from downtime calculations? Computation Basis: Is SLA compliance measured on an overall end-to-end system basis or per individual sub-system/component?	>99.5% uptime shall be Calculated quarterly; >Planned/scheduled maintenance windows will be excluded from downtime calculations;

727	262	Table B (Item 8), Part-4 Section- IV / Clause 8, Cyber Security Requirements PG 262	Tender Clause Clarification (VAPT Requirements) Existing Provision: Vulnerability Assessment and Penetration Testing (VAPT) must be conducted prior to Go-Live and annually throughout the 5-year AMC period, with payments made against submitted VAPT certificates on an actuals basis. Clarification Sought: Please confirm the operational and financial terms for VAPT execution: Empanelment: Must the VAPT audit be conducted exclusively by a CERT-In empanelled security agency? Commercial Scope: Should bidders quote VAPT fees as a separate line item in the BOQ Price Schedule, or is the cost expected to be subsumed within other overall project/AMC cost heads?	As per tender terms
728	2-3	Forwarding Letter (n), Pg 2-3	Tender Clause Clarification (Contract Duration & Extension Pricing) Existing Provision: The contract spans 70 months (10 months Implementation + 60 months AMC, including 4 months Hypercare), with OIL retaining the option to extend the agreement for up to 1 additional year under the same terms. Clarification & Amendment Request: Given the rapid evolution of technology over a 5-year period: Clarification Sought: Please clarify whether financial rates for the potential 1-year extension must be quoted upfront during the initial bid submission, or if they will be mutually negotiated prior to exercising the extension option. Proposed Adjustment: We request that extension rates be subject to mutual negotiation at the end of the primary term to reflect prevailing market rates and technological shifts.	No need to quote for potential extension period of 1 year upfront.
729	107	Part-4, Section- II, Section 5.1.1, Item A1 (WTC Delhi CCC) PG107	Kindly provide room-wise HVAC heat load calculations including Video Wall, AV equipment, Servers, UPS, Lighting and Occupancy loads.	As per requirement & solution design
730	108-139	Section 5.1.2, PAC Requirements PG 108-139	Tender specifies 30 TR PAC/VRF cooling. Please clarify whether 30 TR refers to total installed capacity or net cooling demand.	30 TR refers to minimum installed cooling capacity with N+1 redundancy

731	108-139	Section 5.1.2, PAC Requirements PG 108-139	Please confirm if PAC sizing shall consider future load expansion and specify the percentage margin to be considered.	PAC sizing shall be as per tender specifications
732	108-139	Section 5.1.2, PAC Requirements PG 108-139	Kindly provide the indoor design temperature and humidity set points to be maintained by the PAC system. Tender specifies ±1°C temperature control and ±5% RH humidity control only.	Please refer to amended clause to be published
733	108-139	Section 5.1.2, PAC Requirements PG 108-139	Please provide the outdoor design ambient conditions for Delhi, Duliajan, Jodhpur and Guwahati to be considered for equipment selection.	Bidder to assess during implementation phase
734	108	Section 5.1.2 (Server & UPS Rooms) PG 108- 112	Kindly provide separate heat loads for Server Rooms and UPS Rooms and confirm whether dedicated PAC units are required.	Please be guided by information in the tender
735	108-139	Section 5.1.2 PG 108-139	Please clarify whether DX Precision AC, Chilled Water PAC.	Chilled Water PAC shall not be accepted

736	108-139	Section 5.1.2 PG 108-139	Tender specifies N+1 redundancy. Please clarify whether redundancy shall be calculated based on room load or installed capacity.	Installed Capacity
737	108-139	Section 5.1.2 PG 108-139	Kindly confirm acceptable PAC configurations such as 2×15 TR, 3×10 TR or equivalent.	N+1 as per design requirement
738	108-139	Section 5.1.2 PG 108-139	Please confirm whether automatic Lead-Lag sequencing controller is mandatory and within PAC OEM scope.	Please be guided by information in the tender
739		31-32 3.2 (A,B,C & D) Requested Amendment: We EXPERIENCE CRITERIA: Bidders request OIL to amend the should meet all the following eligibility criteria to include experience criteri	Requested Amendment: We request OIL to amend the eligibility criteria to include experience in "Oil & Gas / Petrochemicals / Power / Utilities / Metals sector / Any Govt. / Semi-Govt. / Govt. Undertaking / PSU / Private Works." Justification: Work executed across other government, semi-government, and established private sectors carries equivalent technical criticality, complexity, and operational standards as the specified sectors. Broadening this criterion will foster healthy competition among qualified bidders, ensuring competitive pricing and maximal financial benefit for Oil India Limited.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
740		32 B. The Bidder must have successfully REQUESTED AMENDMENT: executed/completed at least 01 (One) Data Acquisition and Data no. of the following solution against Ingestion : Consum	REQUESTED AMENDMENT: Data Acquisition and Data Ingestion : Consumption of real time and historical data from connected servers and systems followed by ingestion of data into time series database, data platform, tag mapping.	Query not Clear

741		B2-Active LED | B2.1 | Pixel Pitch | 0.93 mm or less	The tender specifies Pixel Pitch of 0.93 mm or less. Request for acceptance of 0.94, The difference between 0.93 mm and 0.94 mm pixel pitch is only 1.07%, which is visually imperceptible and has no practical impact on display performance, resolution, readability, or Command & Control Centre operations	OIL will review and revert.
742		B2-Active LED | B2.10 | 3D Function – Stereoscopic | Active 3D with emitter covering full display/designated portion; 10 active 3D glasses	Yes In SI Scope	OIL will review and revert.
743		B2-Active LED | B2.19 | Certifications | BIS + Low Blue Light / Eye Comfort certification	Against the requirement for BIS + Low Blue Light / Eye Comfort certification, Request for acceptance of Blue Light Safety on Letter Head	OIL will review and revert
744		B2-Active LED | B2.20 | Curvature | Aluminium die-cast cabinets supporting 0°–2.5° angle between modules	Pls add glass carbon fiber based cabinet with BS476 certifiction (fire retartdant) Glass fiber reinforced cabinet with BS 476 certified fire-retardant material, providing enhanced structural strength, reduced weight, corrosion resistance, dimensional stability, and improved fire safety for 24x7 mission-critical installations.	The offered solution shall comply with the specified cabinet construction, curvature, fire-safety, structural and operational requirements.
745		B2-Active LED | B2.26 | Inputs sufficient for pixel-to-pixel stereoscopic 3D + HDR10+, plus 20% spare input ports	Media server with 3D graphics card (Suitable to Stereographics player) and Sync card in SI Scope, clarify	Confirmed. The bidder/System Integrator shall provide the complete media-server, graphics, synchronization, software, licences and integration required to meet the specified stereoscopic 3D functionality.

746		B2-Active LED | B2.27 | RJ45/OFC outputs sufficient for pixel-to-pixel HDR10+ and stereoscopic 3D, plus 10% spare outputs	Request for acceptance of Equivalent third-party media servers/processors capable of delivering pixel-to-pixel resolution, HDR, stereoscopic 3D, and display synchronization should be accepted. System performance should be evaluated at the overall solution level rather than controller output architecture alone	An equivalent technology-neutral architecture may be proposed, provided the complete solution meets all specified functional, performance, HDR, stereoscopic 3D, synchronization, redundancy, interoperability and support requirements.
747		B2-Active LED | B2.28 | Controller itself requires dual redundant power	LED display system shall be supplied with minimum two controllers in Active-Redundant configuration. Controllers may be powered through redundant UPS-backed power infrastructure. Dual power supply within each controller shall be optional	OIL will review and revert.
748		B2-Active LED | B2.30 | Hot-swappable I/O cards, frame synchronization, HDR10+, stereoscopic 3D, auto-monitoring and fault alarms	Hot Swappable I/O cards option is not available. Hot-swappable I/O cards are not available in the proposed controller architecture. The controller provides stable enterprise-grade fixed I/O interfaces with high reliability, redundant system architecture, and OEM service support. The requirement may be relaxed as it does not affect functionality, uptime, HDR processing, stereoscopic 3D operation, or overall system performance.	OIL will review and revert.
749		A2-Active LED | A2.1 | Pixel Pitch | 0.93 mm or lesser	Please Keep 0.93mm~0.95mm The difference between 0.93 mm and 0.94 mm pixel pitch is only 1.07%, which is visually imperceptible and has no practical impact on display performance, resolution, readability, or Command & Control Centre operations	OIL will review and revert.
750		A2-Active LED | A2.11 | 3D Function – Stereoscopic | Active 3D with Emitter to support full length of display and designated portion of the LED Display with supply 20 nos Active 3D Glasses	This is SI Scope with third party integration, clarify	OIL will review and revert.

751		A2-Active LED | A2.19 | Certifications | BIS and Low Blue light / Eye Comfort Certifications	Blue Light Safety on Letter Head Blue light / Ey Comport is part of Test Certificate. Allow in OEM Letter head	OIL will review and revert
752		A2-Active LED | A2.20 | Curve | Supplier to provide special cabinets (Aluminium Diecast) which can accommodate an angle of 0~2.5 Degrees between each module to meet the curve requirement. The curve shall be as per the drawing provided.	Pls add glass carbon fiber based cabinet with BS476 certifiction (fire retartdant) Glass fiber reinforced cabinet with BS 476 certified fire-retardant material, providing enhanced structural strength, reduced weight, corrosion resistance, dimensional stability, and improved fire safety for 24x7 mission-critical installations.	The offered solution shall comply with the specified cabinet construction, curvature, fire-safety, structural and operational requirements.
753		A2-Active LED | A2.26 | Number of Inputs | Required number of Inputs to achieve Pixel-to-Pixel Resolution in Stereoscopic 3D & HDR10+ and additional 20% spare input ports	Media server with 3D graphics card (Suitable to Stereographics player) and Sync card in SI Scope Media server with 3D graphics card (Suitable to Stereographics player) and Sync card in SI Scope	Confirmed. The bidder/System Integrator shall provide the complete media-server, graphics, synchronization, software, licences and integration required to meet the specified stereoscopic 3D functionality.
754		A2-Active LED | A2.27 | Number of Outputs (RJ45 / OFC) | Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode and additional 10% for Spare Output ports	Equivalent third-party media servers/processors capable of delivering pixel-to-pixel resolution, HDR, stereoscopic 3D, and display synchronization should be accepted. System performance should be evaluated at the overall solution level rather than controller output architecture alone	An equivalent technology-neutral architecture may be proposed, provided the complete solution meets all specified functional, performance, HDR, stereoscopic 3D, synchronization, redundancy, interoperability and support requirements.
755		A2-Active LED | A2.28 | Power Redundancy | LED Controller should have dual power one for active and one for redundancy	LED display system shall be supplied with minimum two controllers in Active-Redundant configuration. Controllers may be powered through redundant UPS-backed power infrastructure. Dual power supply within each controller shall be optional	OIL will review and revert.

756		A2-Active LED | A2.29 | Features | - Hot-swappable input and output cards- Frame synchronization: image should be played smoothly, without any stuck, frame loss, tearing or piercing- Should supports HDR10+ and Stereoscopic 3D Function- Auto monitoring and fault alarms should be available	Hot Swappable I/O cards option is not available. Hot-swappable I/O cards are not available in the proposed controller architecture. The controller provides stable enterprise-grade fixed I/O interfaces with high reliability, redundant system architecture, and OEM service support. The requirement may be relaxed as it does not affect functionality, uptime, HDR processing, stereoscopic 3D operation, or overall system performance.	OIL will review and revert.
757		C2-Active LED | C2.1 | Pixel Pitch | 0.93 mm or lesser	Please Keep 0.93mm~0.95mm The difference between 0.93 mm and 0.94 mm pixel pitch is only 1.07%, which is visually imperceptible and has no practical impact on display performance, resolution, readability, or Command & Control Centre operations	OIL will review and revert.
758		C2-Active LED | C2.2 | Screen Size | 120 inches	108 inches or higher Since the requirement is intended for indoor visualization and monitoring rather than public viewing, display technology, pixel pitch, resolution, brightness, reliability, and viewing experience should be considered the primary evaluation criteria rather than a fixed screen diagonal size. Acceptance of 108" or larger displays will ensure wider OEM participation without compromising project objectives.	The specified screen-size requirement shall remain unchanged. The bidder shall offer a fully compliant display solution.
759		C2-Active LED | C2.20 | Certifications | BIS and Low Blue light / Eye Comfort Certifications	Blue Light Safety on Letter Head Blue light / Ey Comport is part of Test Certificate. Allow in OEM Letter head	OIL will review and revert
760		C2-Active LED | C2.21 | Curve | Supplier to provide special cabinets (Aluminium Diecast) which can accommodate an angle of 0~2.5 Degrees between each module.	Pls add glass carbon fiber based cabinet with BS476 certifiction (fire retartdant) Glass fiber reinforced cabinet with BS 476 certified fire-retardant material, providing enhanced structural strength, reduced weight, corrosion resistance, dimensional stability, and improved fire safety for 24x7 mission-critical installations.	The offered solution shall comply with the specified cabinet construction, curvature, fire-safety, structural and operational requirements.

761		C2-Active LED | C2.27 | Number of Inputs | Required number of Inputs to achieve Pixel-to-Pixel Resolution in Stereoscopic 3D & HDR10+ and additional 20% spare input ports	Media server with 3D graphics card (Suitable to Stereographics player) and Sync card in SI Scope	Confirmed. The bidder/System Integrator shall provide the complete media-server, graphics, synchronization, software, licences and integration required to meet the specified stereoscopic 3D functionality.
762		C2-Active LED | C2.28 | Number of Outputs (RJ45 / OFC) | Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode and additional 10% for Spare Output ports	Equivalent third-party media servers/processors capable of delivering pixel-to-pixel resolution, HDR, stereoscopic 3D, and display synchronization should be accepted. System performance should be evaluated at the overall solution level rather than controller output architecture alone	An equivalent technology-neutral architecture may be proposed, provided the complete solution meets all specified functional, performance, HDR, stereoscopic 3D, synchronization, redundancy, interoperability and support requirements.
763		C2-Active LED | C2.29 | Power Redundancy | LED Controller should have dual power one for active and one for redundancy	LED display system shall be supplied with minimum two controllers in Active-Redundant configuration. Controllers may be powered through redundant UPS-backed power infrastructure. Dual power supply within each controller shall be optional	OIL will review and revert.
764		C2-Active LED | C2.30 | Features | - Hot-swappable input and output cards	Hot Swappable I/O cards option is not available. Hot-swappable I/O cards are not available in the proposed controller architecture. The controller provides stable enterprise-grade fixed I/O interfaces with high reliability, redundant system architecture, and OEM service support. The requirement may be relaxed as it does not affect functionality, uptime, HDR processing, stereoscopic 3D operation, or overall system performance.	OIL will review and revert.
765		C2-Active LED | C2.30 | Features | - Should supports HDR10+ and Stereoscopic 3D Function	The requirement for Stereoscopic 3D Function may kindly be made optional or considered through equivalent third-party visualization solutions. The primary purpose of the display is Command & Control Centre monitoring and collaboration, where display quality, HDR performance, reliability, and operational continuity are the key requirements. Restricting the specification to mandatory built-in stereoscopic 3D support may unnecessarily limit OEM participation without impacting the intended functionality of the project	The stereoscopic 3D requirement shall remain as specified. The bidder shall provide all hardware, software, emitters, glasses, integration, licences and synchronization components required for complete functionality.

766		D2-Active LED | C2.1 | Pixel Pitch | 0.93 mm or lesser	Please Keep 0.93mm~0.95mm The difference between 0.93 mm and 0.94 mm pixel pitch is only 1.07%, which is visually imperceptible and has no practical impact on display performance, resolution, readability, or Command & Control Centre operations	OIL will review and revert.
767		D2-Active LED | C2.2 | Screen Size | 120 inches	108 inches or higher Since the requirement is intended for indoor visualization and monitoring rather than public viewing, display technology, pixel pitch, resolution, brightness, reliability, and viewing experience should be considered the primary evaluation criteria rather than a fixed screen diagonal size. Acceptance of 108" or larger displays will ensure wider OEM participation without compromising project objectives.	The specified screen-size requirement shall remain unchanged. The bidder shall offer a fully compliant display solution.
768		D2-Active LED | C2.20 | Certifications | BIS and Low Blue light / Eye Comfort Certifications	Blue Light Safety on Letter Head Blue light / Ey Comport is part of Test Certificate. Allow in OEM Letter head	OIL will review and revert
769		D2-Active LED | C2.21 | Curve | Supplier to provide special cabinets (Aluminium Diecast) which can accommodate an angle of 0~2.5 Degrees between each module.	Pls add glass carbon fiber based cabinet with BS476 certifiction (fire retartdant) Glass fiber reinforced cabinet with BS 476 certified fire-retardant material, providing enhanced structural strength, reduced weight, corrosion resistance, dimensional stability, and improved fire safety for 24x7 mission-critical installations.	The offered solution shall comply with the specified cabinet construction, curvature, fire-safety, structural and operational requirements.
770		D2-Active LED | C2.27 | Number of Inputs | Required number of Inputs to achieve Pixel-to-Pixel Resolution in Stereoscopic 3D & HDR10+ and additional 20% spare input ports	Media server with 3D graphics card (Suitable to Stereographics player) and Sync card in SI Scope	Confirmed. The bidder/System Integrator shall provide the complete media-server, graphics, synchronization, software, licences and integration required to meet the specified stereoscopic 3D functionality.

771		D2-Active LED | C2.28 | Number of Outputs (RJ45 / OFC) | Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode and additional 10% for Spare Output ports	Equivalent third-party media servers/processors capable of delivering pixel-to-pixel resolution, HDR, stereoscopic 3D, and display synchronization should be accepted. System performance should be evaluated at the overall solution level rather than controller output architecture alone	An equivalent technology-neutral architecture may be proposed, provided the complete solution meets all specified functional, performance, HDR, stereoscopic 3D, synchronization, redundancy, interoperability and support requirements.
772		D2-Active LED | C2.29 | Power Redundancy | LED Controller should have dual power one for active and one for redundancy	LED display system shall be supplied with minimum two controllers in Active-Redundant configuration. Controllers may be powered through redundant UPS-backed power infrastructure. Dual power supply within each controller shall be optional	OIL will review and revert.
773		D2-Active LED | C2.30 | Features | - Hot-swappable input and output cards	Hot Swappable I/O cards option is not available. Hot-swappable I/O cards are not available in the proposed controller architecture. The controller provides stable enterprise-grade fixed I/O interfaces with high reliability, redundant system architecture, and OEM service support. The requirement may be relaxed as it does not affect functionality, uptime, HDR processing, stereoscopic 3D operation, or overall system performance.	OIL will review and revert.
774		D2-Active LED | C2.30 | Features | - Should supports HDR10+ and Stereoscopic 3D Function	The requirement for Stereoscopic 3D Function may kindly be made optional or considered through equivalent third-party visualization solutions. The primary purpose of the display is Command & Control Centre monitoring and collaboration, where display quality, HDR performance, reliability, and operational continuity are the key requirements. Restricting the specification to mandatory built-in stereoscopic 3D support may unnecessarily limit OEM participation without impacting the intended functionality of the project	The stereoscopic 3D requirement shall remain as specified. The bidder shall provide all hardware, software, emitters, glasses, integration, licences and synchronization components required for complete functionality.
775		A12 85" touch | A12.5 | Brightness | Minimum 300 cd/m^2	Requested Change: Minimum 440 cd/m^2 300 cd/m^2 brightness is vey low compare to industry standard of 440 cd/m^2	OIL will revert.

776		A12 85" touch | A12.8 | Connectivity | HDMI: Minimum 2 × HDMI 2.0 ports; USB: Minimum 2 × USB 3.0 ports; DisplayPort: Minimum 1 × DisplayPort 1.2; LAN: 1 × RJ45 Ethernet port; Wireless: Built-in Wi-Fi and Bluetooth	Requested Change: HDMI: Minimum 3 × HDMI 2.0 ports; USB: Minimum 3 × USB 3.0 ports. USB2.0*1, USB type C*1. DisplayPort Keep it optional; LAN: 1 × RJ45 Ethernet port; Wireless: Built-in Wi-Fi and Bluetooth Keep the latest HDMI*3 and Incorporate the latest USB TYPE C port	The tender specifies the minimum connectivity requirements. Additional or higher-version HDMI/USB/USB Type-C interfaces may be offered, provided all mandatory ports and complete functionality are retained without additional cost to OIL.
777		B8 85" touch | B8.5 | Brightness | Minimum 300 cd/m^2	Requested changes: Minimum 440 cd/m^2 300 cd/m^2 brightness is vey low compare to industry standard of 440 cd/m^2	OIL will revert.
778		B8 85" touch | B8.8 | Connectivity | - HDMI Ports: Minimum 2 HDMI 2.0 ports	Requested changes: HDMI * 3	The tender specifies the minimum connectivity requirements. Additional or higher-version HDMI/USB/USB Type-C interfaces may be offered, provided all mandatory ports and complete functionality are retained without additional cost to OIL.
779		B8 85" touch | B8.8 | Connectivity | - USB Ports: Minimum 2 USB 3.0 ports	Requested changes: USB 3.0 *3 , USB type C *1. USB 2.0 *1 Latest interface are must with USB TYPC and more USB Type	The tender specifies the minimum connectivity requirements. Additional or higher-version HDMI/USB/USB Type-C interfaces may be offered, provided all mandatory ports and complete functionality are retained without additional cost to OIL.
780		B8 85" touch | B8.8 | Connectivity | - DisplayPort: Minimum 1 DisplayPort 1.2	Keep it optional	The tender specifies the minimum connectivity requirements. Additional or higher-version HDMI/USB/USB Type-C interfaces may be offered, provided all mandatory ports and complete functionality are retained without additional cost to OIL.

781		A3 Multi touch | A3.5 | OS Compatibility | Windows, Mac OSX, Linux	Requested Change: Windows / Mac / OSX / Linux	The requirement is clear and shall remain as specified. The proposed solution shall support Windows, macOS and Linux as required.
782		II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components. | Protection and Surface Treatment : Anti-Scratch, Anti-Dust, Anti-Moisture, Anti- Collision, Anti Glare, Anti-Static, Anti-Moiré, Front Water-Proof	Kindly remove Front Water Proof since it's an indoor requirement. We understand that it is mentioned for the maintenane of the screen But mentioning Water proof is not suitable. Kindly remove the same	OIL shall review and revert
783	31 of 343	3.2.B - Experience Criteria | The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,97,99,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals: OT Data Acquisition & Industrial Data Ingestion: Consumption of both real-time and historical OT/industrial data from OPC UA, OPC DA, OPC HDA, or equivalent industrial data gateways or servers provisioned by the respective OT systems, followed by ingestion of this data into a centralized OT data lake, historian, time-series database, or operational data platform, along with asset-wise data modelling encompassing tag mapping, contextualisation.	Large-scale surveillance projects involve real-time data collection, centralized storage, data management, event/metadata processing, system integration and analytics through Command & Control platforms. Such experience demonstrates relevant capability in handling large volumes of real-time operational data. we request the Authority to kindly consider: - Experience in Smart City / Safe City / ICCC projects involving centralized data acquisition, integration, ingestion and management; and - Experience involving surveillance/security operational data, including CCTV/VMS data and associated metadata/events, as equivalent relevant experience. This may help ensure wider participation while retaining the requirement for demonstrated experience in handling large-scale, real-time and historical data through centralized platforms.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.

784	32 of 343	3.2.C - Experience Criteria | The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,49,88,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals: Enterprise IT & Middleware Integration: The scope covers the design and deployment of IT middleware, enterprise integration platforms, APIs, or ESB (Enterprise Service Hub) solutions to enable seamless integration of enterprise and departmental IT systems—such as ERP, EAM, HSE, GIS, monitoring, and other business applications—along with the establishment of real-time and batch data pipelines for ingestion into centralized IT or business data lakes and analytics platforms.	Kindly consider Smart City / Safe City / ICCC experience involving integration of multiple applications, systems and platforms through APIs, middleware or equivalent technologies, along with real-time data exchange and centralized data platforms, as an equivalent experience for this PQ criterion.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
785	101 of 343	Clause 3.1 IT Systems | Includes CCTV monitoring, Drone Surveillance and upcoming Video Analytics.	Kindly let us know the OEM make for the Video management system and video analytics software. Further, Kindly clarify the alert video data of video analytics system need not to be stored in the command center platform .	OIL will review and revert.
786	103 of 343	4.Scope of work : 4.12 | The solution shall be capable of integrating with existing OT and IT systems and databases, such as SCADA, PLCs, DCS, wellhead monitoring platforms, SAP, HSE Portal, E&P Databank, CCTV systems, and video analytics, to enable both real-time and historical monitoring of field performance and events.	Kindly share the existing OEM details	OIL will review and revert.

787	105 to 343	Part-4 Section-II Clause 5, Clause 6 and Annexure-A3 | CCC, Data Lake and integration infrastructure are proposed across multiple locations.	Kindly clarify whether network switching infrastructure (Core, Distribution, Access, Data Centre and Industrial Ethernet Switches) is within bidder scope. Kindly mention the same in the BoQ	OIL will review and revert.
788	106 of 343	Clause 5.1 Corporate Office, WTC Delhi | CCC infrastructure requirements are defined for Delhi, Duliajan, Jodhpur and Guwahati locations.	Kindly clarify the scope of civil, interior, electrical, HVAC and related infrastructure works for RF Jodhpur and PHQ Guwahati. While the SOW includes all four locations, corresponding BOQ line items for civil/interior works appear to be explicitly defined only for certain locations. Please confirm whether any civil/interior modification works are envisaged at RF Jodhpur and PHQ Guwahati and, if yes, provide the detailed BOQ and quantities for bidder estimation.	OIL will review and revert.
789	184 of 343	Clause 6.1 OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration | Minimum 2 years historical data migration to OT and IT Data Lakes is envisaged.	Kindly confirm the data retention policy for OT Data Lake and IT Data Lake, including raw data retention, processed data retention, archival duration, backup retention, and storage tiering requirements (hot/warm/cold). Please also confirm whether all historical data must remain online and readily accessible throughout the contract period.	The bidder shall provide the complete OT Data Lake solution and integrations under Section 6.1, including 50,000 initial tags scalable to 100,000, minimum ten-year online retention, two years of historical data migration where available, secure OPC/API connectivity, contextualization, buffering and 99.95% uptime.
790	184 of 343	Clause 6.1 OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration | Cloud-based CCC Application and Data Lakes are envisaged.	Since the OT Data Lake is proposed at FHQ Duliajan and the CCC application is cloud-hosted, please clarify whether rack servers are required at RF Jodhpur, PHQ Guwahati and Corporate Office Delhi. If yes, kindly provide the intended workload, sizing basis and availability requirements for each location.	To be guided by tender requirements
791	185 of 343	Clause 6.1 OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration | Tag capacity shall be 50,000 tags initially. The bidder shall ensure proper design of the OT Data Lake solution to process the above tag volume efficiently, with scalability for future expansion up-to 1,00,000 tags	Kindly confirm the estimated tag count expected over the next 5 years and whether the proposed solution should be sized for 100,000 tags from Day-1.	The bidder shall provide the complete OT Data Lake solution and integrations under Section 6.1, including 50,000 initial tags scalable to 100,000, minimum ten-year online retention, two years of historical data migration where available, secure OPC/API connectivity, contextualization, buffering and 99.95% uptime.

792	200 of 343	Part-4, Sec-II, Clause 6.1 | OT System integration scope:	Kindly share the detailed OEM-wise inventory of OT systems along with supported communication protocols (OPC-UA, OPC-DA, Modbus TCP/IP, MQTT, etc.).	OIL will review and revert.
793	202 of 343	Part-4, Sec-II, Clause 6.2 | IT Middleware & Business Data Lake resources provision	Kindly confirm the expected daily data ingestion volume and annual data growth rate for IT Data Lake sizing.	OIL will review and revert.
794	203 of 343	Part-4, Sec-II, Clause 6.2 | IT System integration scope:	Please provide the complete list of enterprise applications and confirm the availability of APIs/web services for integration	OIL will review and revert.
795	208 of 343	V. Diagnostic & Descriptive Analytics | g) Provides automated correlation of operational events across distributed upstream assets (wells, pipelines, compressors) to identify patterns and potential risk areas.	We request you to kindly amend the clause as follows: "The system shall receive and display correlated operational events, patterns, and potential risk information provided by the respective native/upstream systems."	OIL will review and revert.
796	210 of 343	b) Detailed Technical Requirements: Unified Value Chain View | The CCC platform should provide a responsive web interface with dynamic overlays, real-time data binding, and multi-monitor layout management; support tablet/mobile responsive breakpoints; integrate REST/GraphQL APIs with pagination, filtering, caching, and data validation pipelines; store data in secure time-series and relational databases.	We request you to kindly amend the clause to make the requirement technology-neutral and implementation-flexible, as the specified capabilities may be achieved through different application, API, and database architectures. Accordingly, we request that the clause be amended as follows: "The CCC platform shall provide a responsive web interface with dynamic overlays, real-time data binding, multi-monitor layout management, and support for tablet/mobile responsive breakpoints. The platform shall support integration through standard APIs with capabilities such as pagination, filtering, caching, and data validation, and	OIL will review and revert.

			shall support secure storage and management of relational / time-series data using an enterprise-grade database.”	
797	219 of 343	8 (Cyber Security Requirements), | Establish and implement Security Policy aligned with leading standards and frameworks such as ISA/IEC 62443, NCIIPC Guidelines, ISO/IEC 27001:2013, and NIST Cybersecurity Framework.	Kindly clarify whether cybersecurity infrastructure components such as NGFW, WAF, IDS/IPS, etc. infrastructure are within the bidder's scope of supply and implementation. If these components are already available in OIL's environment, please provide details of the existing security infrastructure and required integration scope.	As per tender requirements
798	262 of 343	Payment Terms | 50% of BoQ price (A,B,C,D) against completion of 3.a) of ‘Implementation & Delivery Schedule’ for each site 25% of BoQ price (A,B,C,D) against completion of 3.b) of ‘Implementation & Delivery Schedule’ for each site	As there are four different sites and the BOQ is different for each site, we understand that the payment milestone will be considered on a site-wise basis, rather than upon completion of the entire BOQ across all four locations. Please confirm if our understanding is correct.	Please be guided by payment terms
799	332 of 343	ANNEXURE-A3 7. Network and Security | Bidder shall design and implement the solution to comply with OIL’s network policies and SOC requirements.	Please clarify the responsibility matrix for cybersecurity components, including procurement, licensing, subscription renewals, monitoring, incident response, SOC integration, and ongoing management during AMC.	OIL will review and revert.
800	3-4	3.0 / 3.4 – Pre-Bid Conference & Queries | Pre-bid queries are to be submitted by 20 August 2026; Clause 3.1 refers to forwarding queries by 21 August 2026.	Kindly confirm the final applicable deadline for submission of pre-bid queries, as Clause 3.4 specifies 20 August 2026 while Clause 3.1 refers to 21 August 2026. Kindly consider 21 August 2026 as the final cut-off, in line with Clause 3.1.	NA

801	4	3.4 – Pre-Bid Clarifications | Clarifications/exceptions/deviations are to be raised before/during the pre-bid conference.	Kindly confirm that clarifications agreed during the pre-bid conference will be incorporated through an addendum/corrigendum before bid submission. Kindly incorporate all accepted clarifications through an addendum/corrigendum.	Clarifications accepted by OIL that modify or supplement the tender shall be communicated uniformly through an official addendum/corrigendum on the e-procurement portal. Bidders shall consider all such amendments while preparing and submitting their bids.
802	30-31	2.0 – Eligibility / Local Content | Bidder must be incorporated/constituted in India and maintain minimum 20% local content.	Kindly clarify whether the 20% local-content requirement applies to the complete project value or only to the offered services/components covered under PP-MII provisions. Kindly clarify the calculation basis and component-wise treatment of local content.	Clarified. It is only to the contract cost against this tender.
803	31	3.1 – MAF | Tender-specific MAF is required from OEMs for Video Wall Screen, Video Wall Controller, Servers, VC System, UPS, PAC and Fire Alarm & Suppression System.	Kindly confirm whether MAF issued by the respective OEM/authorized Indian entity is acceptable where the bidder is an authorized system integrator/partner. Kindly permit MAF from the OEM's authorized India entity/channel partner where duly authorized.	Shall be reviewed and confirmed by OIL
804	31-32	3.2 – Experience Criteria A | CCC infrastructure experience is required in Oil & Gas/Petrochemicals/Power/Utilities/ Metals with prescribed monetary thresholds.	Kindly clarify whether equivalent CCC/ICC/War Room projects executed for Central/State Government, PSU, Smart City, Railways, Telecom or other critical infrastructure clients will be considered where the technical scope is equivalent. Kindly accept equivalent mission-critical CCC experience from Government/PSU/critical infrastructure sectors.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
805	32	3.2 – Experience Criteria B | OT Data Acquisition & Industrial Data Ingestion experience through OPC UA/DA/HDA or equivalent is required.	Kindly confirm whether such experience executed as a component of a larger integrated IT/OT/SCADA project will qualify, provided the relevant scope and value are certified by the client. Kindly allow component-level experience within a larger integrated project where independently certifiable.	Shall be reviewed and confirmed by OIL

806	32	3.2 – Experience Criteria C | Enterprise IT & Middleware Integration experience is required.	Kindly confirm whether experience involving API Gateway, ESB, middleware, enterprise integration platforms and data pipelines will be considered equivalent. Kindly accept equivalent enterprise integration technologies/platforms.	OIL will review and revert.
807	32-33	3.2 – Experience Criteria D | CCC applications/dashboards/decision-support experience with real-time analytics, alerts/alarms and workflows is required.	Kindly clarify whether experience delivered as part of an Integrated Command Centre/centralized visualization project will qualify if the application value is not separately itemized in the original work order. Kindly allow client-certified component value/scope within a larger ICC/CCC contract.	OIL will review and revert with more clarity.
808	33-34	3.2.1 – Experience Documents | JCC/SES/COP with client-certified job report is required; LOI/LOA alone is not acceptable.	Kindly clarify whether a client-issued completion/work completion certificate containing contract value, scope, contract number and completion date will be accepted in lieu of the prescribed JCC/SES/COP format. Kindly accept equivalent client-issued completion documentation containing all required particulars.	The documentary evidence shall collectively establish the relevant scope, executed value/quantity, contract reference and successful completion or executed portion as required under BEC Clause. Acceptance of the submitted documents shall be subject to OIL's verification during bid evaluation.
809	33-34	3.2.1 – Running Contracts | Running contracts may qualify if prescribed quantity/parameters have been executed before bid closing.	Kindly confirm whether a client-certified execution certificate/SES for the completed portion of a running contract will be sufficient evidence for qualification. Kindly confirm acceptance of certified executed quantities/value under running contracts.	The documentary evidence shall collectively establish the relevant scope, executed value/quantity, contract reference and successful completion or executed portion as required under BEC Clause. Acceptance of the submitted documents shall be subject to OIL's verification during bid evaluation.
810	35-36	3.2.2 – Supporting Company | Experience of sister/co-subsidiary company may be considered subject to specified ownership/support conditions.	Kindly clarify whether a consortium member or strategic group company outside the defined wholly-owned structure can support technical experience through a consortium/teaming arrangement. Kindly permit consortium members to contribute respective technical experience subject to contractual responsibility.	Clarified. To be guided as per tender document.

811	35-36	3.2.2 / JV / Consortium | Specific provisions exist for supporting companies and JV companies.	Kindly clarify whether a consortium/JV may combine specialized credentials for CCC infrastructure, OT Data Lake, IT integration and CCC application respectively. Kindly allow aggregation of specialized technical experience across consortium members.	OIL will review and revert.
812	41 / 322	3.3 – Key Personnel | Specified key personnel qualifications/experience and CVs/certificates are required.	Kindly clarify whether personnel employed by OEMs/technology partners and proposed for project execution can be considered against the specified key-personnel requirements. Kindly permit qualified OEM/technology-partner resources with bidder responsibility.	Key personnel shall meet the qualification and experience requirements specified in BEC Clause 3.3 and Annexure-A2. Personnel proposed through an OEM/technology partner may be considered only if & where permitted by the tender, remain committed for the required period and are supported by the prescribed CVs, certificates and deployment undertakings.
813	105	5.0 – CCC Locations / Site Survey | CCC is to be established at Corporate Office WTC Delhi, FHQ Duliajan, RF Jodhpur and PHQ Guwahati; site survey is required.	Kindly provide/confirm availability of latest architectural, electrical, HVAC, networking, rack, power and earthing drawings/details for all four locations. Kindly provide site information/drawings through an addendum or controlled data room.	OIL will review and revert.
814	105 / 224	5.0 – Site Readiness | Bidder is responsible for site-readiness assessment covering civil, power, HVAC, network and safety.	Kindly clarify the exact boundary between OIL-provided site infrastructure and bidder scope, particularly incoming power, electrical panels, HVAC, earthing, network connectivity and civil readiness. Kindly provide a site-wise responsibility matrix for enabling infrastructure.	OIL will review and revert.
815	221-223	9.2 – Implementation Timeline | Total implementation is 10 months; infrastructure by T0+6 months, integration by T0+7 months and Go-Live by T0+10 months.	Kindly clarify that timelines will be extended for delays attributable to OIL, site readiness, third-party OEMs, existing systems/data, approvals, network connectivity or other dependencies beyond bidder control. Kindly include an explicit dependency-based timeline extension provision.	OIL will review and revert.

816	141	5.2.2 / B1 – Civil & Interiors | Civil/interior/electrical/fire/HVAC/control-room works are included.	Kindly provide latest site layouts/dimensions and confirm whether landlord/building-owner approvals, structural modifications or statutory permissions will be arranged by OIL. Kindly clarify OIL and bidder responsibilities for building-level approvals/modifications.	Available layouts and site information shall be shared during site survey/Blueprinting. OIL shall facilitate permissions within its control and coordination with the concerned site authority. The bidder shall identify all required approvals and submit compliant structural, civil, MEP and safety designs; statutory approvals specifically arising from the bidder's design or execution shall be supported by the bidder as applicable.
817	113	A2 – Active Curved LED Display | LED display requires 0.93 mm or lesser pixel pitch, 16.8m x 2.7m, COB Full Flip Chip, HDR10+, 7680 Hz, etc.	Kindly clarify whether technically equivalent LED technologies meeting or exceeding all stated performance parameters will be acceptable. Kindly permit equivalent/latest technology meeting all performance and reliability requirements.	The offered LED solution shall meet or exceed all stated performance parameters. Any proposed equivalent shall be supported by OEM datasheets and test evidence and shall be subject to OIL's technical evaluation.
818	115	A3 – Multi-Touch Overlay | 32-point multi-touch overlay with specified accuracy, response time, interfaces and operating conditions is required.	Kindly confirm whether equivalent touch technologies and USB/HID interfaces providing the specified functionality/performance will be accepted. Kindly allow technology-neutral compliance based on functional and performance parameters.	To be guided by tender requirements
819	115 onwards / 259	A4 / D3 – IPKVM & Video Processing | 4K60 IPKVM, encoders, decoders and redundant video wall processor are required.	Kindly clarify required concurrent sources, display windows, operator endpoints and maximum cable/transport distances at each CCC location to enable accurate sizing. Kindly provide site-wise source/endpoint matrix and signal-flow requirements.	The bidder shall size the IPKVM and video-processing solution for the complete functionality and quantities specified in the tender, including 4K60 transport, required encoders/decoders, concurrent source viewing, operator endpoints, display windows, redundancy and spare capacity. Site-specific source counts, cable routes and distances shall be verified during Blueprinting/Detailed Design without limiting the bidder's responsibility for a complete solution.
820	141 / 259	B5 / D4 – Computing Rack Servers | Computing rack servers are required for dashboards/applications.	Kindly provide expected application workloads, virtualization requirements, CPU/GPU, memory, storage and sizing benchmarks. Kindly provide workload sizing parameters or permit bidder/OEM sizing based on finalized architecture.	OIL shall review and revert

821	260	E1 – OT Data Lake | OT Data Lake software subscription includes OPC Server Connector/API Connector/Middleware/Data Bus/Adapter licenses; quantity is Quarter 20.	Kindly clarify whether the stated quantity represents 20 quarters of subscription for the complete implementation/AMC period or another licensing metric. Kindly provide intended license unit/quantity and validity period in the BoQ.	The quantity of 20 quarters represents subscription coverage for the five-year AMC period after Go-Live. The bidder shall include all OT Data Lake software, connectors, middleware, adapters, support and updates required during the applicable implementation, Hypercare and AMC periods as specified in the tender.
822	260	E3 – OT System Integration | OT system integration is payable on actual number of systems; indicative quantity 15.	Kindly provide the preliminary list of the 15 OT systems and confirm whether systems beyond this quantity are additional payable scope. Kindly define baseline 15 systems and rate mechanism for additional integrations.	The quantity of 15 OT systems is indicative and payment shall be based on the actual number of systems integrated as per the SOR. The available source-system inventory, protocols and interfaces shall be validated during Blueprinting/Detailed Design. The bidder shall include the required connectors, gateways, configuration, testing and documentation for each accepted integration.
823	260	E5 – Historical Data Migration | Migration of two completed financial years and current year is specified for available historical data.	Kindly provide estimated historical data volume, formats, source systems and data-quality status. Kindly clarify responsibility for data cleansing/correction in source systems. Kindly exclude source-system remediation/data-quality correction unless separately identified.	The bidder shall migrate the available historical data for the period specified in the tender. Source-wise volumes, formats, quality and extraction mechanisms shall be assessed during Blueprinting/Detailed Design. OIL/source-system owners shall facilitate access to available data; the bidder shall perform mapping, transformation, validation and migration, while correction of erroneous source records shall be jointly identified and handled through an approved data-cleansing plan.
824	260	F3 – IT System Integration | IT system integration/data pipeline development is payable on actual number of systems; indicative quantity 15.	Kindly provide indicative list of 15 IT systems/applications and available APIs/interfaces for sizing and integration planning. Kindly provide system-wise integration inventory and API/interface details.	The quantity of 15 IT systems/applications is indicative and payment shall be based on actual accepted integrations as per the SOR. The application inventory, APIs, file/database interfaces, mappings and refresh frequencies shall be finalized during Blueprinting/Detailed Design. The bidder shall provide the middleware, connectors, pipelines, testing and documentation required for each integration.
825	260	F4/F5 – Cloud Compute & Storage | Cloud compute and storage resources are included for IT Data Lake.	Kindly clarify assumed baseline compute, storage, data growth, retention, users and ingestion volumes, and treatment of growth beyond baseline. Kindly permit additional cloud consumption due to OIL-driven scope/data growth to be charged separately.	OIL will review and revert

826	183 onwards / 329	6.1 – OT Data Lake / Tags | OT Data Lake is intended for real-time/historical OT data and future scalability.	Kindly provide current/projected number of tags, sampling frequency, average data points per second, peak ingestion rate, retention period and annual data growth. Kindly provide sizing parameters for accurate infrastructure/licensing estimation.	The OT Data Lake shall support 50,000 tags initially and be scalable to 100,000 tags, with minimum ten-year online retention and migration of two years of historical data wherever available. Final tag inventory, scan rates, data types and peak ingestion shall be confirmed during Blueprinting/Detailed Design; the architecture shall accommodate the specified scale without fundamental redesign.
827	329	3.10-3.18 – IT/OT Integration | Integration requires architecture/data-flow/API/tag mapping; buffering and historical migration are required.	Kindly confirm that necessary APIs, gateways, source-side protocol enablement and access credentials will be made available by OIL/concerned OEMs. Kindly define OIL/third-party dependency obligations for integration enablement.	OIL shall facilitate access to available source systems, credentials and existing interfaces through the concerned stakeholders/OEMs. The bidder shall verify interface readiness and provide all solution-side connectors, gateways, middleware, adapters, security configuration, buffering and integration services required for the complete scope. Any source-side gap shall be documented during Blueprinting for resolution through the approved responsibility matrix.
828	221	Existing SOC Integration | Logs, alerts and anomalies are to be routed to existing SOC.	Kindly provide existing SOC/SIEM platform, OEM/version, integration mechanism, log formats and APIs. Kindly confirm SOC-side licenses/configuration responsibility. Kindly provide SOC interface specification and clarify license responsibility.	Details of the existing SOC/SIEM platform and available integration mechanisms shall be shared with the successful bidder during Blueprinting/Detailed Design. The bidder shall provide all solution-side log enablement, connectors, parsers, licences, configuration and testing required to forward relevant logs, alerts and anomalies to OIL's SOC. SOC-side changes shall be finalized through the approved responsibility matrix.
829	214-215	7.0 – AMC | Five-year AMC covers complete supplied infrastructure, applications, middleware, databases, networking, AV, controllers and licenses.	Kindly provide complete asset/BoQ inventory against which AMC pricing is to be calculated and clarify treatment of future additions. Kindly define AMC baseline and treatment of additional assets/licenses.	AMC pricing shall cover the complete hardware, software, licences, subscriptions, integrations and associated components supplied and implemented under the accepted BoQ for five years from Go-Live, including Hypercare obligations. Additions introduced through an approved change order shall be treated in accordance with the applicable contract and pricing provisions.
830	214-215	7.0 – Day-to-Day Operations | Bidder is responsible for day-to-day operations of CCC solutions.	Kindly clarify required operating hours, shift pattern, manpower at each location, and whether OIL will provide existing operational/support personnel. Kindly provide location-wise manpower/shift responsibility matrix.	Delhi: day shift; Duliajan: 24x7. Manpower is not required at RF Jodhpur and PHQ Guwahati.

831	222	10 – Training | Functional, technical and end-user training is required at OIL premises.	Kindly clarify total training batches/participants and whether travel/accommodation of OIL participants is excluded from bidder scope. Kindly define participant numbers and training locations before bid submission.	The bidder shall provide role-based functional, technical, administrator and end-user training as specified in Section 10. The detailed training plan, batches, participants, curriculum, schedule and materials shall be finalized during Blueprinting in consultation with OIL. Training at OIL premises and bidder-trainer travel/stay shall be included in bidder scope; OIL participant arrangements shall be borne by OIL unless otherwise specified.
832	224-225	11 – FAT/SAT/UAT | FAT, SAT and UAT support/reports are required.	Kindly clarify acceptance criteria, test cases and sign-off authority for each major subsystem and the maximum period for SAT/UAT observations/sign-off. Kindly provide standard acceptance-test matrix and sign-off timelines.	The bidder shall prepare subsystem-wise FAT, SAT and UAT plans, test cases, traceability matrix and acceptance criteria mapped to the tender and approved design. These shall be reviewed and approved by OIL before testing. Sign-off shall be by the authorized OIL user/technical representatives after closure of observations in accordance with the approved test plan and project schedule.
833	261	Payment Terms – Mobilization / Blueprint | 5% payment at mobilization and 5% at blueprint design/requirement finalization.	Kindly clarify documentation/approval milestone for release of each payment and maximum payment processing period from complete invoice submission. Kindly define milestone acceptance and payment processing timelines.	As per payment terms
834	261-262	Payment Terms – Infrastructure | Payments are linked to completion of infrastructure activities at sites.	Kindly confirm whether milestone payments will be released site-wise upon completion/certification of each location rather than after all four locations. Kindly allow site-wise milestone billing and certification.	OIL will review and revert.
835	262	Payment Terms – Integration | Several integration payments are linked to actual systems integrated.	Kindly confirm that payment for each successfully integrated and accepted system will be released independently even if other systems are delayed due to OIL/third-party dependencies. Kindly provide system-wise milestone/payment certification.	OIL will review and revert.

836	262	Payment Terms – Hyper Care | 5% of implementation cost is withheld for Hyper Care and released after resolution of issues.	Kindly clarify objective acceptance criteria for Hyper Care completion and confirm withholding applies only to unresolved bidder-attributable issues. Kindly define measurable Hyper Care exit criteria and exclusions.	Shall be reviewed and confirmed by OIL
837	247	LD / SLA | LD and SLA penalties are applicable subject to stated caps.	Kindly confirm LD/SLA penalties will not apply for delays/downtime attributable to OIL, site readiness, power, WAN/connectivity, third-party systems/OEMs, force majeure, planned maintenance or other events outside bidder control. Kindly include explicit exclusions from LD/SLA calculations.	The delays/downtime attributed to OIL has to be recorded by bidder and the same can be submitted as proof to avoid any LD/SLA. Alongside, alignment with OIL on delays/downtime is to be ensured
838	105	4.25 – Intellectual Property | Source code, models, workflows, dashboards and platform customizations are stated to be OIL IP.	Kindly clarify that OIL ownership applies to project-specific custom development/deliverables, while pre-existing OEM software, proprietary platform components, libraries, frameworks, algorithms and reusable bidder/OEM IP remain with their respective owners. Kindly revise/clarify IP ownership accordingly.	OIL shall own the project-specific source code, configurations, dashboards, workflows, interfaces, models and customizations developed specifically under the contract. Pre-existing OEM/COTS software, proprietary platform components and reusable background IP shall remain with their respective owners, subject to OIL receiving the licences, usage rights, documentation and continuity rights required under the tender.
839	334	8.1-8.2 – Additional Items | Bidder must provide additional hardware/software/licenses necessary for complete operation at no extra cost.	Kindly clarify that this obligation is limited to items necessary to meet the defined tender scope/specifications and does not cover new requirements or scope changes introduced after bid submission. Kindly limit no-cost obligation to defined tender scope and approved design.	The bidder shall include all items necessary to deliver the defined tender scope as a complete, functional and compliant turnkey solution, even if not separately itemized.
840	334-335	7.0 / Licensing | Licensing includes subscription models, scalability, license management and transferability.	Kindly provide component-wise licensing matrix specifying perpetual/subscription model, quantity, validity, renewal responsibility, AMC coverage and growth assumptions. Kindly provide definitive license baselines for commercial estimation.	OIL will review and revert

841	334	7.16 – VAPT | Annual VAPT by CERT-In empanelled agency is required.	Kindly confirm whether VAPT will be arranged by OIL through its nominated/CERT-In empanelled agency and bidder responsibility is limited to supporting assessment and remediation attributable to supplied solution. Kindly clarify agency appointment, scope and remediation responsibility.	The bidder shall arrange and bear the cost of CERT-In-empanelled VAPT before Go-Live and annually during AMC, and shall support testing, remediate findings attributable to the supplied solution and submit closure evidence/reports to OIL, in accordance with Section 8 and Annexure-A3.
842	54	Detailed RFQ Document | 10.0 CERTIFICATION OF DOCUMENTS BY INDEPENDENT THIRD-PARTY INSPECTION AGENCIES (TPIA): Section 10.3 | 54 | The verified and certified documents (as mentioned in Para 10.2 above) must be submitted along with the Technical Bid. Any bid submitted with un-verified supporting documents shall not be considered.	We request OIL India to kindly confirm if the certificate from the Third party inspection agencies in support for the bidders qualification is acceprtable. As PO's /Contractual documents are usually governed by NDA's. Thus it may not be possible to submit the same. We request OIL India to kindly accept the certificate from the Third party inspection agencies (after verification of bidders documents) in support for the bidders qualification.	Clarified. To be guided as per tender document.
843	101	Detailed RFQ Document | 2.4. Broad Components/Deliverables: II.CCC Compute Infrastructure and Services: Pt c | 101 | Develop & Deploy CCC Application and mobile app	We understand that all CCC applications shall be hosted on the Azure Cloud (IT data lake) and OT Data Lake (on Premise at Duliajan). The CCC infrastructure shall act as Clients to the same. Please confirm/clarify	Yes
844	101	Detailed RFQ Document | 3.2. OT & IoT Systems | 101 | c) The above OT systems are currently isolated with no integration into a common data lake or centralized integration gateway. d) IoT systems are implemented for well head monitoring which are deployed in cloud	Please confirm if the OT Systems are eqipped with OPC DA, OPC Alarms/OPC UA interfaces Please confirm the type of interfaces available from the IoT Systems These interfaces are required for integration of OT/IoT data into the data lake.	1. OT Data Lake Integration at Level 4 A. The OT Data Lake (Level 4) shall connect to the OPC servers hosted within the respective SCADA systems at Level 3.5. B. This means the OT Data Lake will act as an OPC UA client and collect data from the SCADA environment. 2. SCADA Responsibility A. The SCADA servers are required to provide OPC UA connectivity and the necessary communication ports. B. Therefore, the responsibility for providing OPC UA server functionality lies primarily with the SCADA OEM/vendor. 3. OT Data Lake Compatibility

				A. The OT Data Lake solution must support OPC UA protocol for secure data exchange. 4. Data Transfer beyond OT Data Lake A. The OT Data Lake solution must support industry-standard protocols such as OPC UA, OPC DA, etc., to facilitate secure and reliable data transfer beyond the OT Data Lake to various data platforms that form part of OIL's Digital Drive 2.0 initiative.
845	102	Detailed RFQ Document | 3.3 Infrastructure & Network Landscape Pt b | 102 | OT systems are largely isolated logically and physically in some cases from the IT network for security and reliability, while IT systems operate primarily within the IT network.	We assume OT Systems are isolated through firewall deployment from the rest of the network. OIL may please confirm/clarify.	Refer to amended OT Architecture
846	102	Detailed RFQ Document | 3.3 Infrastructure & Network Landscape Pt e | 102 | A Security Operations Centre (SOC) is implemented for real-time monitoring, incident detection, and response across IT and cloud environments.	What is the SIEM platform implemented as part of the SOC?	No relevance
847	103, 104	Detailed RFQ Document | 4. Scope of work, Section 4.8, Pt b, 4.18 | 103, 104 | Deliver actionable, context-rich insights, Alerts & Workflows to support effective planning, execution, troubleshooting and continuous operational improvement. The platform shall support KPI tracking and deviation alerts. It shall allow users to configure performance metrics, define thresholds, and receive real-time alerts for deviations, along with escalation workflows for necessary approvals or actions.	Please clarify the use of "workflow"in the context of Alerts. We understand that the bidder need to implement some workflow based Automation in response to an event/alert. What existing OIL Systems will be workflow get integrated with,	Yes; Exact Workflow requirement shall be finalised during design phase

848	103	Detailed RFQ Document | 4. Scope of work, Section 4.10 | 103 | Comprehensive modelling of wells, networks, and surface facilities shall be undertaken to enable real-time visualization & performance analysis and overlay of alerts and insights.	Where is this expected to be done? What sort of modelling is required? OIL may please clarify Modelling may be done as part of the Digital Twin applications which can be integrated with the CCC	Detailed asset modelling, contextualization requirements, and visualization hierarchy shall be finalized during the Blueprint and Detailed Design phases in consultation with OIL.
849	103	Detailed RFQ Document | 4. Scope of work, Section 4.12 | 103 | The solution shall be capable of integrating with existing OT and IT systems and databases, such as SCADA, PLCs, DCS, wellhead monitoring platforms, SAP, HSE Portal, E&P Databank, CCTV systems, and video analytics, to enable both real-time and historical monitoring of field performance and events	What interfaces are available from E&P Databank, CCTV and Video Analytics Systems?	Refer to amendments for integration
850	104	Detailed RFQ Document | 4. Scope of work, Section 4.19 | 104 | The Bidder shall comply with OIL's IT & Cloud policies and digital architecture standards, including adherence to SSO, RBAC, data encryption (in transit and at rest), and OSDU where applicable.	Has OSDU been implemented in OIL. If so please clarify for what areas/applications If OSDU has not been implemented, We request OIL to kindly exclude this from the scope for the time being.	No
851	123, 154	Detailed RFQ Document | A6 SITC of Interactive Collaboration Suite with Videowall Controller | 123, 154 | Section A6.18–A6.20 / B6.17–B6.18	Considering the requirement to push interactive content from the table to the full-length LED wall, navigate real-time 3D plant/refinery imagery and display multiple live field-camera feeds across the wide curved screen, please confirm whether the proposed platform can provide these functions through a common interactive interface while maintaining synchronized and smooth visualization.	as per tender
852	129	Detailed RFQ Document | A8. SITC of Motorized 21.5" Pop-Up Capacitive Multitouch Displays with Integrated Chairman & Delegate System, Mini PC supporting Executive collaboration platform Software and Licenses, including all necessary hardware, accessories, for seamless integration and operation (10 for Collaboration	Considering the requirement for multiple conference discussion modes, chairman priority, voice activation, automatic camera focus/mixing and an orderly speaker queue, please confirm whether the proposed Chairman and Delegate system can integrate these functions so that microphone activation automatically triggers the corresponding camera operation while still allowing the chairman to override the automatic control when required.	as per tender

		workspace table + 2 for interactive table) | 129 | A8.2.6–A8.2.8		
853	186	Detailed RFQ Document | 6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration Pt aa | 186 | Tag capacity shall be 50,000 tags initially. The bidder shall ensure proper design of the OT Data Lake solution to process the above tag volume efficiently, with scalability for future expansion up-to 1,00,000 tags.	We understand that the bidder needs to provision for 50,000 tags initially. Does this include the provisioning for entire contractual period? OIL may please clarify/comment. If not please provide the approximate % growth in no of tags per year so that appropriate license cost for OT data lake can be provisioned.	Provisioning for 100000 tags to be considered for entire contract period
854	186	Detailed RFQ Document | 6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration Pt ee | 186 | The bidder shall migrate a minimum of two (2) years of historical data (wherever available) from all integrated OT and IoT systems into the OT Data Lake	What amount of Data in (GB/TB) would this transalate to? HPCL may please clarify	No relevance
855	186	Detailed RFQ Document | a) OT Data Lake Resources Provision | 186 | The proposed OT Data Lake solution shall be deployed at OIL's Data Centre located at Field Headquarters (FHQ), Duliajan, Assam. The bidder shall supply the rack servers and software licences as specified in this tender. OIL shall provide the required rack space for hosting the servers.	OIL may please clarify the following: 1. Whether Network and associated LAN is part of bidders scope here 2. Cybersecurity Equipment such as firewalls are within scope of the bidder. If so please provide specifications As deployment of OT lake is in redundant/high availability mode, then we suggest OIL relook at the minimum quantity of 4 servers in the RFP	as per tender
856	186	Detailed RFQ Document | a) OT Data Lake Resources Provision | 186 | The proposed OT Data Lake solution shall be deployed at OIL's Data Centre located at Field Headquarters (FHQ), Duliajan, Assam. The bidder shall supply the rack servers and software licences as specified in this tender.	We assume that UPS Power shall be available from the ACDB in Oil Data Centre in Duliajan for the OT data lake. OIL may please confirm/clarify	UPS power to be arranged by bidder

		OIL shall provide the required rack space for hosting the servers.		
857	193	Detailed RFQ Document | Interfacing with operational data sources. | 193 | The system shall integrate and consolidate data from a variety of data sources including individual unit DCS, SCADA systems, automation systems, databases, controllers and devices including meters, IOT sensors with support to standard industry protocols: • OPC-DA • OPC-HDA • OPC- A&E • OPC-UA • MODBUS TCP/IP • IEC 61850 • IEC 60870-5-104 • DNP3 • RDBMS • BACNet • MQTT SNMP	Why are compliance to the following protocols required? IEC 61850 • IEC 60870-5-104 • DNP3 • RDBMS • BACNet • SNMP	1. OT Data Lake Integration at Level 4 A. The OT Data Lake (Level 4) shall connect to the OPC servers hosted within the respective SCADA systems at Level 3.5. B. This means the OT Data Lake will act as an OPC UA client and collect data from the SCADA environment. 2. SCADA Responsibility A. The SCADA servers are required to provide OPC UA connectivity and the necessary communication ports. B. Therefore, the responsibility for providing OPC UA server functionality lies primarily with the SCADA OEM/vendor. 3. OT Data Lake Compatibility A. The OT Data Lake solution must support OPC UA protocol for secure data exchange. 4. Data Transfer beyond OT Data Lake A. The OT Data Lake solution must support industry-standard protocols such as OPC UA, OPC DA, etc., to facilitate secure and reliable data transfer beyond the OT Data Lake to various data platforms that form part of OIL's Digital Drive 2.0 initiative.
858	193	Detailed RFQ Document | Interfacing with operational data sources. Pt m | 193 | The interface application shall support redundancy and failover mechanism. It shall also be capable of handling redundant data sources.	We understand that redundancy in terms of Data collection is required for data Collection from the field. OIL may please confirm/clarify	as per tender

859	193	Detailed RFQ Document | Interfacing with operational data sources. Pt m | 193 | The interface application shall support redundancy and failover mechanism. It shall also be capable of handling redundant data sources.	Who shall be responsible for supplying the servers , network Terminal equipment and Firewalls at the Field level? OIL may please confirm/clarify Request OIL to please exclude the Hardware deployment at Site level from bidders scope	Please refer to amended OT Architecture
860	200	Detailed RFQ Document | OT System integration scope: | 200 | List of OT Systems	Please specify the average no of Tags for the Source OT Systems	Will be confirmed during design stage
861	200	Detailed RFQ Document | OT System integration scope: | 200 | Well head monitoring (IoT)	We understand this is deployed on premise. OIL may please clarify whether there is a centralised server that aggregate Well head monitoring data at a central location This will affect the integration architecture	Data ingestion from Well-Head Monitoring System to OT Data Lake would be through the on-prem SCADA OPC UA Server & not from Cloud as currently shown in modified Architecture Diagram to be published to be published at Pg#206; hence, integration with Azure Event Hub is not required. Pl refer to the modified Architecture Diagram to be published to be published. The OT Data Lake shall support historical data migration/backfilling from existing OT data sources through APIs, database connectors, historian interfaces, OPC-based interfaces and file-based ingestion mechanisms, including CSV, TXT, ASCII, JSON, XML and equivalent formats as appropriate.
862	201	Detailed RFQ Document | 6.2. IT Middleware & Business Data Lake setup, IT System Integration | 201 | Any required connectors, adaptors, or integration modules for SAP-HANA shall be procured, licensed, and provisioned by the bidder as part of the solution.	We understand all connectors on the SAP HANA Side shall be arranged by OIL. OIL may please confirm/clarify	OIL shall revert

863	206	Detailed RFQ Document | I.Real-Time & Periodic Data Ingestion Pt a | 206 | The system shall ingest data in real-time and on a scheduled/periodic basis from the OT Data Lake, IT middleware, and Data Lake sources.	What is the periodicity for OT data injestion into the IT Data lake from OT data lake? This will allow us to provision resources in the Cloud acordingly	No relevance
864	221	Detailed RFQ Document | 9.2.Phase-1 (Current Scope) implementation timeline | 221 | The total project duration is 10 months for implementation, followed by 5 years of Annual Maintenance Contract (AMC) support.	Looking at the dependencies and constraints involved, We request OIL to kindly consider an implementation period of 15 Months.	OIL shall revert
865	203	Detailed RFQ Document | b) IT System integration scope: | 203 | IT System integration scope:	Out of the total source systems listed for ingesting the data in IT data lake, please share which sources needs to be integrated in real time for IT/Business Data Lake?	OIL shall revert
866	201	Detailed RFQ Document | 6.2. IT Middleware & Business Data Lake setup, IT System Integration | 201 | The objective is to establish an integrated IT middleware and business data lake platform that unifies enterprise systems, enables real-time data exchange, enhances cross-functional KPI visibility, and provides a secure, scalable foundation for future advanced analytics.	For the real time/streaming data ingestion, will the source system push data into Event solution for IT/Business Data Lake or we need to provision CDC tool?	as per tender
867	201	Detailed RFQ Document | 6.2. IT Middleware & Business Data Lake setup, IT System Integration | 201 | The objective is to establish an integrated IT middleware and business data lake platform that unifies enterprise systems, enables real-time data exchange, enhances cross-functional KPI visibility, and provides a secure,	Please provide the number of stream analytics pipelines to be built for IT data lake?	AS per system design

		scalable foundation for future advanced analytics.		
868	201	Detailed RFQ Document | 6.2. IT Middleware & Business Data Lake setup, IT System Integration | 201 | The objective is to establish an integrated IT middleware and business data lake platform that unifies enterprise systems, enables real-time data exchange, enhances cross-functional KPI visibility, and provides a secure, scalable foundation for future advanced analytics.	Please provide the number of batch transformation pipelines to be built for IT data lake?	AS per system design
869	201	Detailed RFQ Document | 6.2. IT Middleware & Business Data Lake setup, IT System Integration | 201 | The objective is to establish an integrated IT middleware and business data lake platform that unifies enterprise systems, enables real-time data exchange, enhances cross-functional KPI visibility, and provides a secure, scalable foundation for future advanced analytics.	Please provide the number of streaming ingestion pipelines to be built for IT data lake?	AS per system design
870	201	Detailed RFQ Document | 6.2. IT Middleware & Business Data Lake setup, IT System Integration | 201 | The objective is to establish an integrated IT middleware and business data lake platform that unifies enterprise systems, enables real-time data exchange, enhances cross-functional KPI visibility, and provides a secure, scalable foundation for future advanced analytics.	Please provide the number of batch ingestion pipelines or number of feed files/tables to be integrated for data ingestion from each of the sources into IT data lake	As per system design

871	201	Detailed RFQ Document | 6.2. IT Middleware & Business Data Lake setup, IT System Integration | 201 | The objective is to establish an integrated IT middleware and business data lake platform that unifies enterprise systems, enables real-time data exchange, enhances cross-functional KPI visibility, and provides a secure, scalable foundation for future advanced analytics.	In case of CDC, please share the source system database, its version, number of cores which needs to be integrated with IT/Business Data Lake	No relevance
872	203	Detailed RFQ Document | b) IT System integration scope: | 203 | IT System integration scope:	Please share out of the sources to be integrated with IT data lake, which sources will provide unstructured data	To be confirmed during detail design
873	203	Detailed RFQ Document | III.Scalability & Availability | 203 | Long-term storage with clear data retention policies (to be defined).	Please share the daily incremental data volume that needs to be ingested for IT/Business Data Lake - Structured incremental data volume and Unstructured incremental data volume	Cloud resources for IT Data Lake shall be provisioned by OIL; Pl refer to amendments in this regard
874	203	Detailed RFQ Document | III.Scalability & Availability | 203 | Long-term storage with clear data retention policies (to be defined).	Please share the "no of events/per second" or total data volume for real-time data capture (in a 24-hour window)? for each streaming source	IT Data lake resources shall be provisioned by OIL;
875	203	Detailed RFQ Document | III.Scalability & Availability | 203 | Long-term storage with clear data retention policies (to be defined).	What is the y-o-y growth for IT/Business Data Lake	IT Data lake resources shall be provisioned by OIL;

876	203	Detailed RFQ Document | III. Scalability & Availability | 203 | Long-term storage with clear data retention policies (to be defined).	Please share the overall volume of data and years of data (data retention) that needs to be stored in the IT Data lake Volume of structured data Volume of unstructured data	IT Data lake resources shall be provisioned by OIL;
877	202	Detailed RFQ Document | 6.2. IT Middleware & Business Data Lake setup, IT System Integration | 202 | The bidder shall migrate a minimum of two (2) years of historical data (wherever available) from all integrated OT and IT systems into the respective IT Data Lake.	Please share the volume of 2 years data to be migrated Please share if the migration will be from source systems?	Storage for migration of historical data shall be provided by OIL
878	203	Detailed RFQ Document | V.Analytics & AI Ready | 203 | n) Integrate with CCC & Future analytics, ML/AI, and reporting platforms.	We understand that the AI/ML and Generative AI requirements are part of the future roadmap. Accordingly, the proposed platform should be capable of supporting and provisioning these capabilities when required. However, we assume that the AI/ML and GenAI solutions themselves are not required to be implemented or provisioned as part of the current scope. Kindly confirm	Solution should support AI/ML capability for future requirement
879	205	Detailed RFQ Document | 6.3. Develop & Deploy Cloud based CCC Application and mobile app | 205 | The solution shall provide a consolidated, enterprise-wide dashboard integrating data from exploration, drilling, production, transportation, and safety functions. It shall offer real-time operational status indicators (e.g., "Active Drilling", "Shut-in Wells") and seamlessly combine IT, OT, and IoT data to enable holistic monitoring, analytics, and data-driven decision-making.	Please share the count of users for the reports/dashboard from IT/Business Data Lake with below segregation a) Count of users with self service capability b) Count of users with view only access	As per tender

880	206	Detailed RFQ Document | 6.3. Develop & Deploy Cloud based CCC Application and mobile app | 206 | Backup of the solution shall be carried out by bidder through a backup policy which shall be created in consultation with OIL.	We understand, OIL India Ltd has existing back up solution and that will be leveraged for the back up requirement i.e. Commvault for IT/Business Data Lake. Please confirm.	OIL will review and revert.
881	206	Detailed RFQ Document | 6.3. Develop & Deploy Cloud based CCC Application and mobile app | 206 | Backup of the solution shall be carried out by bidder through a backup policy which shall be created in consultation with OIL.	Oil India Ltd backup solution team owner will own the entire back up process, IT data lake team needs to only enable all configuration details, please confirm	OIL will review and revert.
882	201	Detailed RFQ Document | 6.2. IT Middleware & Business Data Lake setup, IT System Integration | 201 | Any required connectors, adaptors, or integration modules for SAP-HANA shal	Please confirm whether S4/Hana will expose data with CDS Views for ingesting data into IT Data lake. Please confirm If not then provide the mode of integration with S4/Hana to ingest data into IT Data Lake (files, db connect, etc)?	OIL shall revert
883	203	Detailed RFQ Document | b) IT System integration scope: | 203 | b) IT System integration scope:	Please confirm if there is a need to ingest OT/IoT data from OT data lake into IT data lake for integrated reporting	No
884	214	Detailed RFQ Document | b) Detailed Technical Requirements: | 214 | OIL has already setup a secure cloud landing zone in MS Azure to access OIL's ERP (SAP S4/HANA) and such other cloud-based applications for OIL's cloud security and compliance requirement.	We understand Azure landing zone is already available and same will be leverage as part of this IT Data Lake initiative, only services required as per solution will be enabled, please confirm.	Yes

885	208	Detailed RFQ Document | VIII. Reporting & Collaboration: | 208 | Supports auto-scheduled and on-demand report generation in multiple formats (PDF, Excel, etc.).	We understand Report/Dashboard tools i.e. Power BI is available with Oil India and will be leveraged and no additional licenses needs to be provisioned as part of this engagement, please confirm.	No
886	203	Detailed RFQ Document | II. Data Handling | 203 | OSDU-compliant for subsurface data in oil & gas.	Please confirm if bidder need to implement - • OSDU standard schemas • OSDU metadata model • OSDU APIs • Search and discovery services • Data lineage and governance • Entitlements and security model • Domain services for seismic, wells, reservoir, etc. Or OSDU compliant is required only as a capability and will be used only if there's requirement	OIL shall revert
887	203	Detailed RFQ Document | III. Scalability & Availability | 203 | h) Cloud-native or hybrid, scalable for future expansion.	The solution needs to be cloud agnostic or it can be cloud-native	Please refer to amendments for Cloud Infra; Solution should be designed accordingly;
888	203	Detailed RFQ Document | III. Scalability & Availability | 203 | High availability and disaster recovery ready.	We understand for IT datalake Duliajan is the DC location. Please share the DR location for the IT datalake	DR is not in tender scope;
889	203	Detailed RFQ Document | III. Scalability & Availability | 203 | High availability and disaster recovery ready.	Is there and RPO/RTO requirement for the DR?	DR is not in tender scope;

890	216	Detailed RFQ Document | c.Hypercare & Post Go-Live Stabilization Support | 216 | The services under the Annual Maintenance Contract (AMC) shall include, but are not limited to:	During the AMC period, do we need to provde L1, L2, L3 support for IT datalake?	As per tender; Should meet SLA defined
891	216	Detailed RFQ Document | c.Hypercare & Post Go-Live Stabilization Support | 216 | The services under the Annual Maintenance Contract (AMC) shall include, but are not limited to:	we propose to consider below support window for IT data lake? L1 - 24X7 L2, L3 - 9X5 OIL may please confirm/clarify	As per tender
892	218	Detailed RFQ Document | c.Hypercare & Post Go-Live Stabilization Support | 218 | The bidder shall maintain logs of all monitoring activities, detected issues, and corrective actions taken, and submit periodic reports to OIL for review.	Does Oil India have any tool that can be leveraged to maintain the issues and monitoring activities?	No
893	213	Detailed RFQ Document | b)Detailed Technical Requirements | 213 | Support no-code report building, template management, and export in multiple formats (PDF, CSV); enable scheduling, email distribution, and secure API-based data sharing; implement batch processing and job scheduling; store templates, export history, and report artifacts in structured repositories.	Please share the count of data extracts and APIs to be created for the downstream consumption?	To be as per design
894	202	Detailed RFQ Document | a) IT Middleware & Business Data Lake resources provision | 202 | Support IoT protocols and file-based uploads (Excel, CSV, WITSML).	Please enlist the IoT protocols to be supported for integration with IT datalake?	Please refer to amended OT Architecture

895	225	Detailed RFQ Document | 11.5.Testing & Acceptance Deliverables | 225 | User Acceptance Test (UAT) support and closure report, including resolution of observations.	Please share number of environments to be conisered for implementation (Dev/UAT/Prod/DR)?	OIL shall revert
896	225	Detailed RFQ Document | 11.5. Testing & Acceptance Deliverables | 225 | User Acceptance Test (UAT) support and closure report, including resolution of observations.	What needs to be the capacity of Dev and UAT environment with respect to Production	OIL shall revert
897	207	Detailed RFQ Document | 6.3. Develop & Deploy Cloud based CCC Application and mobile app | 207 | Allows customization of dashboards with user-defined KPIs, visualizations, and layout preferences.	Does real time customization of Dashboards is in scope	As per tender
898	207	Detailed RFQ Document | 6.3. Develop & Deploy Cloud based CCC Application and mobile app | 207 | Enables visualization of historical trends, charts, and video previews	Please confirm whether you are looking for video previews within the report/ dasboard or an embedded link to video would suffice	As per tender & solution design
899	207	Detailed RFQ Document | 6.3. Develop & Deploy Cloud based CCC Application and mobile app | 207 | Offers customizable KPI tiles, heatmaps, thermographs, and touch based interactions including drag-and-drop functionality.	Could you elaborate on the required touch based interactions? Would actions like tapping, filtering ,cross - highlighting and drill down would suffice or are you looking for advanced drag and drop functionalities	As per tender

900	207	Detailed RFQ Document | 6.3. Develop & Deploy Cloud based CCC Application and mobile app | 207 | Provides automated task creation with configurable workflow automation and assignment.	Please confirm , if any Workflow/task creating applications like Power Automate is currently being used	No
901	205	Detailed RFQ Document | 6.3. Develop & Deploy Cloud based CCC Application and mobile app | 205 | The solution shall provide a consolidated, enterprise-wide dashboard integrating data from exploration, drilling, production, transportation, and safety functions. It shall offer real-time operational status indicators (e.g., “Active Drilling”, “Shut-in Wells”) and seamlessly combine IT, OT, and IoT data to enable holistic monitoring, analytics, and data-driven decision-making.	Could you please specify whether the Data Source would be IT Data Lake for all the reports/Dasboards in scope	As per tender
902	214	Detailed RFQ Document | b) Detailed Technical Requirements: a Pt iv | 214 | Additional security gateway, or connectivity components (NGFW-Next Generation Firewall or VPN gateway etc) must be factored in the bidder's subscription to enable secure IPsec connectivity to OIL's Azure Landing Zone subscription	Kindly clarify whether centralized network security and connectivity services are already available within OIL's Azure Landing Zone for project consumption, or whether bidders are required to deploy and manage dedicated NGFW/VPN Gateway infrastructure as part of the proposed solution.	Already available in existing Azure Landing Zone
903	331	Detailed RFQ Document | 6. Cloud Infrastructure & Services, Pt 6.5 | 331 | The bidder must also factor federation/identity service in their subscription to establish SSO using OIL's Azure AD.	Please clarify the specific federation/identity services and capabilities to be provisioned by the bidder, and confirm whether SSO, MFA, RBAC and PIM capabilties will be provided by OIL's existing Azure AD or are required to be included as part of he bidder's scope.	Not in bidder's scope

904	249	Detailed RFQ Document | 6.Exit Management - Cloud & Infrastructure Transition | 249 | Provide full documentation of the cloud architecture, tenancy details, resource mapping, CSP billing data, network and security configurations, IaC/automation templates Terraform/Ansible/ARM), container images, and CI/CD pipelines.	Please confirm if the OIL has any preferred Infrastructure as Code(IaC) framework/tool(e.g., Terraform, Ansible, ARM templates) thatshoul dbe used for the implementation. If no specific framework is mandated, may the bidder propose an Iac framework?	As per tender
905	187	Detailed RFQ Document | a) OT Data Lake Resources Provision | 187 | The bidder shall be solely responsible for the installation, configuration, commissioning, integration, testing, and successful deployment of the VMware Cloud Foundation (VCF) solution on the supplied servers utilizing the supplied VCF licences	Does OIL have existing VCF licenses? If not request OIL to consider deployment of alternative products such as MS Azure Stack HCI that will perform the same functionality	Please refer to amendment
906	187	Detailed RFQ Document | a) OT Data Lake Resources Provision | 187 | ToR L3 Switch – Dell EMC S5296F SAN Switch – Cisco MDS-9148V-48PETK9 Management Switch – Dell EMC S3048	Please provide the detailed BoM for switches and infrastucture available with OIL	As per tender
907	31	Detailed RFQ Document | BEC 3.0 TECHNICAL EVALUATION CRITERIA, Pt 3.2, Pt A | 31 | A. The bidder must have successfully executed/completed "Command & Control Centre Infrastructure Works, which includes supply, installation, integration and commissioning of Command & Control / Integrated Command Centre / War Room facilities including control-room civil & interior fit-out, video-wall(s), operator consoles, AV/VC systems and associated utilities" over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals as under	We request OIL to kindly consider the following modification: The bidder must have successfully executed/completed "Command & Control Centre Infrastructure/Software Implementation Works, which includes supply/installation/Implementation integration and commissioning of Command & Control / Integrated Command Centre / War Room facilities including control-room video-wall(s), operator consoles, AV/VC systems and associated utilities" over the last 10 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals/Government/Retail as under Command and Control Centre involves both Hardware and Software implementation. Command and Control Centre projects have also been done in the Govt and Retail sectors. Inclusion of these will help us put more references	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.

908	31	Detailed RFQ Document | BEC 3.0 TECHNICAL EVALUATION CRITERIA, Pt 3.2, Pt B | 31 | The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,97,99,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals:	We request OIL for the following modification: The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,97,99,000.00 over the last 10 (Ten) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals:	OIL will review and revert on Experience criteria.
909	31	Detailed RFQ Document | BEC 3.0 TECHNICAL EVALUATION CRITERIA, Pt 3.2, Pt C | 31 | The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,49,88,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals:	We request OIL for the following modification: The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,49,88,000.00 over the last 10 (Ten) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals/Govt Sector	OIL will review and revert on Experience criteria.
910	32	Detailed RFQ Document | BEC 3.0 TECHNICAL EVALUATION CRITERIA, Pt 3.2, Pt D | 32 | The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 37,50,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals:	We request OIL for the following modifications: The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 37,50,000.00 over the last 10 (Ten) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals/Govt/Retail	OIL will review and revert on Experience criteria.
911	103	Detailed RFQ Document | Part-4, Section-II, Cl. 4.16 | 103 | "The platform shall provide 2D/3D visualizations of assets, processes & value-chain, including field layouts, surface facilities, pipeline routes, and drilling infrastructure. These visual layers shall support interactive navigation and shall be GIS-based map and multi-layer visualization where applicable."	Please clarify the overall scope and expected role of GIS within the CCC solution. • To integrate with the existing GIS data and applications, which are on ESRI, Please clarify whether the bidder need to propose a new GIS installation/platform at CCC. • Kindly confirm whether such GIS platform is included in the scope of supply. We would also recommend using the same/common GIS platform for CCC and other applicable locations to facilitate seamless integration, visualization and data sharing. •Kindly confirm the existing GIS data availability which will be integrated in CCC •Please also clarify the expected GIS capabilities, including 2D/3D visualization of field layouts, surface facilities, pipeline routes, drilling infrastructure and other assets;	The bidder is required to provide GIS-enabled 2D/3D visualization, geospatial context, interactive navigation, and multi-layer representation of assets, facilities, networks, and operational information. The tender does not mandate any specific GIS platform. Bidders may propose proprietary or open-source GIS technologies, provided the solution fully meets the functional, performance, scalability, interoperability, and visualization requirements specified in the tender. The proposed GIS component shall support industry-standard geospatial data formats and services and shall be capable of integrating with the overall CCC platform. The bidder shall provide all software, subscriptions, licenses, usage rights, support arrangements, and associated components necessary for

			integration with existing ArcGIS/ESRI datasets and applications; support for GIS maps with associated PDFs, images, videos, Excel files and web applications; and visualization of 3D models/datasets	deployment, operation, maintenance, administration, and integration of the GIS functionality during the contract period. No additional software procurement by OIL shall be required for achieving the specified GIS functionalities.
912	106 / 124 / 155	Detailed RFQ Document | BOQ Item A7 / B7 — 3D Immersive Simulation System | 106 / 124 / 155 | "…designed for geological exploration and analysis, training and simulation and digital twins' presentation. The system shall support a wide range of industry-leading 3D CAD and visualization software without requiring file conversions…"	•Please confirm which GIS-supported and 3D/CAD data formats (e.g., DWG/DXF, Revit RVT, IFC, Civil 3D) are required to be natively supported under this scope •Please specify the functional GIS capabilities required from an application perspective — 2D mapping/analysis, 3D scene visualization, field data capture, network tracing, and dashboard-based monitoring	
913	202	Detailed RFQ Document | Section 6 — IT/OT Systems Integration list (Row: Drone Surveillance) | 202 | "Drone Surveillance — On-prem — Safety & Intrusion detection; Annotated images & videos; Route survey coverage."	Please clarify the expected scope of GIS integration with the Drone/UAV Surveillance solution. Specifically, please confirm whether GIS is expected to ingest, manage, process and/or visualize drone/UAV imagery, videos, route-survey data, flight paths, inspection locations and safety/intrusion events. Please also clarify whether the requirement includes image processing and image-based feature/anomaly extraction, or whether the scope is limited to integration and visualization of processed drone outputs within the GIS/CCC interface.	
914	106 / 124 / 155	Detailed RFQ Document | BOQ Item A7 / B7 — 3D Immersive Simulation System | 106 / 124 / 155 | "…designed for geological exploration and analysis, training and simulation and digital twins' presentation."	• Please clarify the expected scope of a Digital Twin whether it is intended primarily as a 3D visualization/model of assets and facilities, or whether it is expected to include additional capabilities such as real-time monitoring, integration with SCADA/IoT and other operational data, asset status, alarms, analytics, simulation and other operational workflows. • Please clarify what is meant by the Digital Twin Viewer, including its expected functionality and where it is intended to be used (e.g., CCC platform, web application or other applications). • Please confirm the expected number of Digital Twin users, including the number of users who will only view/interact with the Digital Twin and the number of users who will be required to create, edit, update or manage the Digital Twin models and associated data. • Please also clarify the expected 3D model/input	The CCC Platform shall provide the capability to access, visualize and navigate Digital Twin information through an embedded user experience within the CCC environment as specified in the tender through an appropriate integration approaches. The bidder shall factor all licenses, software components, interfaces, connectors, viewers, and associated capabilities required to meet the Digital Twin-related functionality specified under the current Phase-1 scope of the tender. The proposed solution shall additionally be scalable and capable of accommodating future expansion of Digital Twin functionality, models, assets, users, and licenses without major architectural changes

			formats We request OIL to please review this requirement in the light of the Digital Twin opportunity	
915	101-102	Detailed RFQ Document | Current State Overview | 101-102	Please provide details of existing GIS datasets available, such as wells, pipelines, facilities, refineries, warehouses, ROW, utilities, and asset inventory layers. Pls share the exsiting spatial data format & volume	Please refer to amendment
916	103-105	Detailed RFQ Document | Scope of Work | 103-105	Will OIL provide all required GIS data layers and geodatabase ? Assuming that data creation, digitization are not part of the bidder's scope.	The bidder is required to provide GIS-enabled 2D/3D visualization, geospatial context, interactive navigation, and multi-layer representation of assets, facilities, networks, and operational information. The tender does not mandate any specific GIS platform. Bidders may propose proprietary or open-source GIS technologies, provided the solution fully meets the functional, performance, scalability, interoperability, and visualization requirements specified in the tender. The proposed GIS component shall support industry-standard geospatial data formats and services and shall be capable of integrating with the overall CCC platform. The bidder shall provide all software, subscriptions, licenses, usage rights, support arrangements, and associated components necessary for deployment, operation, maintenance, administration, and integration of the GIS functionality during the contract period. No additional software procurement by OIL shall be required for achieving the specified GIS functionalities.
917	103-105	Detailed RFQ Document | Scope of Work | 103-105	Will existing ArcGIS licenses be provided by dept., or are they to be included in the bidder's proposal?	
918	204-214	Detailed RFQ Document | CCC Application Development | 204-214	Please confirm the expected GIS deployment architecture (Single Site, Multi-Site, HA, DR) & GIS environments required (Development, Test, UAT, Production, DR).	

919	184-201	Detailed RFQ Document | Data Lake Setup | 184-201	Please confirm whether a spatial database (PostGIS, Oracle Spatial, SQL Spatial, ArcGIS Enterprise Geodatabase) is expected as part of the solution.
920	207	Detailed RFQ Document | GIS-based Visualization | 207	Please provide an indicative count of assets to be displayed on GIS maps including wells, facilities, pipelines, sensors, stations, and warehouses.
921	207-210	Detailed RFQ Document | GIS Visualization | 207-210	What is the expected refresh frequency for real-time GIS layers and sensor data visualization?
922	207-210	Detailed RFQ Document | GIS Visualization | 207-210	Is the bidder expected to develop GIS map services/APIs or consume existing map services maintained by OIL?
923	207-210	Detailed RFQ Document | GIS Functional Requirements | 207-210	Please confirm use cases of advanced spatial analysis such as Heatmaps, alarm overlays, spatial correlation, location intelligence, and incident tracking.

924	204-214	Detailed RFQ Document | CCC Mobile App | 204-214	Should GIS functionality be available through the mobile application including map viewing, asset search, routing, and live alarms?
925	156	Detailed RFQ Document | Immersive Simulation System | 156	Please confirm if geological datasets need to be visualized together with GIS layers. If yes, does dept. have all spatial layer?
926	156	Detailed RFQ Document | Immersive Simulation System | 156	Kindly clarify expected integration requirements between GIS and CAD/BIM systems.
927	210	Detailed RFQ Document | Asset & KPI Overlay | 210	Please provide estimated number of IoT devices/sensors to be spatially visualized within GIS dashboards.
928	219	Detailed RFQ Document | Cyber Security Requirements | 219	Are there any specific GIS security requirements including map service security, role-based GIS access, and classified spatial data handling?

929	207-210	Detailed RFQ Document | GIS Visualization | 207-210	Please specify expected concurrent GIS users and map performance benchmarks for web and video wall displays.	
930	101-105	Detailed RFQ Document | Current State & Scope | 101-105	Is migration of existing GIS applications, map services, geodatabases, and spatial archives part of bidder scope?	
931	223	Detailed RFQ Document | Training & Knowledge Transfer | 223	Please indicate the expected number of GIS administrators, GIS analysts, and business users requiring training.	
932		General	Please share the overall volume of data that needs to be stored in the IT Data lake	OIL shall provide IT Data Lake infra;
933		General	Please share the count of users for the reports/dashboard from IT/Business Data Lake with below segregation a) Count of users with self service capability b) Count of users with view only access	As per tender

934		General	We understand, OIL India Ltd has existing backup solution and that will be leveraged for the backup requirement i.e. Commvault for IT/Business Data Lake. Please confirm.	OIL will review and revert.
935		General	Oil India Ltd backup solution team owner will own the entire back up process, IT data lake team needs to only enable all configuration details, please confirm	OIL will review and revert.
936		General	Please confirm whether S4/Hana will expose data with CDS Views for ingesting data into IT Data lake. If not then provide the mode of integration with S4/Hana to ingest data into IT Data Lake (files, db connect, etc)? Please confirm	OIL shall revert
937		General	We understand Azure landing zone is already available and same will be leverage as part of this IT Data Lake initiative, only services required as per solution will be enabled, please confirm.	Yes
938		General	We understand Report/Dashboard tools i.e. Power BI is available with Oil India and will be leveraged and no additional licenses needs to be provisioned as part of this engagement, please confirm.	No

939		General	Please confirm the billing and commercial ownership model for public cloud infrastructure. While the bidder shall provide cloud sizing and cost estimates, clarify whether cloud consumption shall be (i) billed directly to OIL, (ii) billed through the successful bidder as CSP partner, or (iii) included as a fixed-price component of the contract.	Cloud infra shall be provided by OIL; refer to amendments
940		General	Kindly clarify whether OIL will provide the ITSM platform for service management activities, with the bidder responsible only for integration with OIL's ITSM system. Alternatively, are bidders required to provision, license, host, and manage an ITSM solution as part of the proposed scope?	OIL shall not provide any ITSM platform
941		General	Please clarify whether OIL has an existing enterprise API Gateway/API Management platform that can be leveraged for the proposed solution integrations, or whether bidders are required to provision and manage an API Management platform as part of the solution scope.	OIL shall revert
942		General	Please clarify whether OIL has an existing key management or Hardware Security Module (HSM) platform for encryption key lifecycle management. If available, confirm whether the proposed solution is required to integrate with the existing service or whether bidder-managed key management is expected.	No
943		General	Confirm if SSL/TLS certificates and certificate lifecycle management will be provided through OIL's existing infrastructure.	No

944		General	Please clarify whether OIL will provide enterprise vulnerability assessment and vulnerability management tooling. If available, confirm whether the bidder is responsible only for remediation and compliance reporting.	No
945		General	Please clarify whether log onboarding to OIL's SIEM/SOC is the bidder's only responsibility, or whether ongoing security monitoring, threat analysis, incident investigation, and response activities are also expected within bidder scope.	As per tender
946	74	16.0 LIMITATION OF LIABILITY: a) Notwithstanding any other provisions herein to the contrary, except only in cases of Wilful misconduct and/or criminal acts and/or criminal negligence, neither the CONTRACTOR nor the COMPANY (OIL) shall be liable to the other, whether in Contract, tort, or otherwise, for any consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided however that this exclusion shall not apply to any obligation of the CONTRACTOR to pay Liquidated Damages to the COMPANY and/or COMPANY's right to forfeit the Performance Bank Guarantee(s) in terms of the contract. b) Notwithstanding any other provisions incorporated elsewhere in the contract, the aggregate liability of the CONTRACTOR in respect of this contract, whether under Contract, in tort or otherwise, shall not exceed 100% of the Contract Price (if not specified otherwise in SCC), provided however that this limitation shall not apply to the cost of repairing or replacing defective equipment by the	16.0 LIMITATION OF LIABILITY: a) Notwithstanding any other provisions herein to the contrary, except only in cases of Wilful misconduct and/or criminal acts and/or criminal negligence, neither the CONTRACTOR nor the COMPANY (OIL) shall be liable to the other, whether in Contract, tort, or otherwise, for any special, indirect, exemplary, punitive incidental and consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided however that this exclusion shall not apply to any obligation of the CONTRACTOR to pay Liquidated Damages to the COMPANY and/or COMPANY's right to forfeit the Performance Bank Guarantee(s) in terms of the contract. b) Notwithstanding any other provisions incorporated elsewhere in the contract, the aggregate liability of the CONTRACTOR in respect of this contract, whether under Contract, in tort or otherwise, shall not exceed in aggregate the total amount paid to CONTRACTOR by the COMPANY during twelve (12) months under that applicable Work immediately preceding the claim that gives rise to such liability (as of the date the liability arose), 100% of the Contract Price (if not specified otherwise in SCC), provided however that this limitation shall not apply to the cost of repairing or replacing defective equipment by the CONTRACTOR, or to any obligation of the CONTRACTOR to indemnify the COMPANY with respect to third party Intellectual	No change

		CONTRACTOR, or to any obligation of the CONTRACTOR to indemnify the COMPANY with respect to Intellectual Property Rights. c) COMPANY shall indemnify and keep indemnified CONTRACTOR harmless from and against any and all claims, costs, losses and liabilities in excess of the aggregate liability amount in terms of clause (b) above.	Property Rights claims. c) COMPANY shall indemnify and keep indemnified CONTRACTOR harmless from and against any and all claims, costs, losses and liabilities in excess of the aggregate liability amount in terms of clause (b) above.	
947	75	19.0 RISK PURCHASE: In the event, CONTRACTOR's failure to provide the services as per the Contractual scope, terms and conditions, COMPANY (OIL) reserves the right to hire the services from any other source at the CONTRACTOR's risk & cost and the difference in cost shall be borne by the CONTRACTOR. Further, OIL shall retain the right of forfeiture of Performance Bank Guarantee and any other action as deemed fit. In certain operational situations OIL reserves the right to take over the site including the service equipment at the risk and cost of the CONTRACTOR.	19.0 RISK PURCHASE: In the event, CONTRACTOR's failure to provide the services as per the Contractual scope, terms and conditions, COMPANY (OIL) reserves the right to hire the services from any other source at the CONTRACTOR's risk & cost and the difference in cost shall be borne by the CONTRACTOR which shall not exceed 10 percent of the value of affected/undelivered services. Further, OIL shall retain the right of forfeiture of Performance Bank Guarantee and any other action as deemed fit. In certain operational situations OIL reserves the right to take over the site including the service equipment at the risk and cost of the CONTRACTOR.	No change
948	75	20.0 INDEMNITY AGREEMENT: 20.1 Except as provided hereof CONTRACTOR agrees to protect, defend, indemnify and hold COMPANY harmless from and against all claims, suits, demands and causes of action, liabilities, expenses, cost, liens and judgments of every kind and character, without limit, which may arise in favour of CONTRACTOR's employees, agents, CONTRACTORs and sub-CONTRACTORs or their employees or in favour of any third party(is) on account of bodily injury or death, or damage to personnel/property as a result of the operations contemplated hereby, regardless of whether or not said claims, demands or causes of action arise out of the negligence or	20.0 INDEMNITY AGREEMENT: 20.1 Except as provided hereof CONTRACTOR agrees to protect, defend, indemnify and hold COMPANY harmless from and against all claims, suits, demands and causes of action, liabilities, expenses, cost, liens and judgments of every kind and character, without limit, which may arise in favour of CONTRACTOR's employees, agents, CONTRACTORs and sub-CONTRACTORs or their employees or in favour of any third party(is) on account of bodily injury or death, or damage to personnel/property as a result of the operations contemplated hereby, regardless of whether or not said claims, demands or causes of action arise out of the negligence or otherwise, in whole or in part or other faults. 20.2 Except as provided hereof COMPANY agrees to protect, defend, indemnify and hold CONTRACTOR harmless from and against all claims, suits, demands and causes of action, liabilities, expenses, cost, liens and judgments of every kind and character, without	No change

		otherwise, in whole or in part or other faults. 20.2 Except as provided hereof COMPANY agrees to protect, defend, indemnify and hold CONTRACTOR harmless from and against all claims, suits, demands and causes of action, liabilities, expenses, cost, liens and judgments of every kind and character, without limit, which may arise in favour of COMPANY's employees, agents, CONTRACTORs and sub-CONTRACTORs or their employees or in favour of any third party(is) on account of bodily injury or death, or damage to personnel/property as a result of the operations contemplated hereby, regardless of whether or not said claims, demands or causes of action arise out of the negligence or otherwise, in whole or in part or other faults	limit, which may arise in favour of COMPANY's employees, agents, CONTRACTORs and sub-CONTRACTORs or their employees or in favour of any third party(is) on account of bodily injury or death, or damage to personnel/property as a result of the operations contemplated hereby, regardless of whether or not said claims, demands or causes of action arise out of the negligence or otherwise, in whole or in part or other faults	
949	75	22.0 ROYALTY PATENTS: Each party shall hold harmless and indemnify the other from and against all claim and proceedings for or on account of any patent rights, design, trade mark or other protected rights arising from any use of materials, equipment processes, inventions and methods, which have not been imposed on the attending party by the terms of the contract or the specifications forming part thereof.	22.0 ROYALTY PATENTS: Each party shall hold harmless and indemnify the other from and against all claim and proceedings for or on account of any third party patent rights, design, trade mark or other protected rights arising from any use of materials, equipment, processes, inventions and methods, which have not been imposed on the attending party by the terms of the contract or the specifications forming part thereof. Contractor shall have no obligations with respect to any Infringement Claims to the extent that the Infringement Claim arises or results from: (i) Contractor's compliance with the Company's specific technical designs or instructions (except where Contractor knew or should have known that such compliance was likely to result in an Infringement Claim and Contractor did not inform the Company of the same); (ii) inclusion in a Deliverable of any content or other materials provided by the Company and the infringement relates to or arises from such Company's materials or provided material; (iii) modification of a Deliverable after delivery by Contractor to the Company if such modification was not made by or on behalf of the Contractor; (iv) operation or use of some or all of the Deliverable in	No change

			combination with products, information, specification, instructions, data, materials not provided by Contractor; or (v) use of the Deliverables for any purposes for which the same have not been designed or developed or other than in accordance with any applicable specifications or documentation provided under the applicable Work by the Contractor ; or (vi) use of a superseded release of some or all of the Deliverables or the Company's failure to use any modification of the Deliverable furnished under this Agreement including, but not limited to, corrections, fixes, or enhancements made available by the Contractor . In the event that Company is enjoined or otherwise prohibited, or is reasonably likely to be enjoined or otherwise prohibited, from using any Deliverable as a result of or in connection with any claim for which Contractor is required to indemnify Company under this section according to a final decision of the courts or in the view of Contractor, Contractor, may at its own expense and option: (i) procure for Company the right to continue using such Deliverable; (ii) modify the Deliverable so that it becomes non-infringing without materially altering its capacity or performance; (iii) replace the Deliverable with work product that is equal in capacity and performance but is non-infringing; or (iv) If such measures do not achieve the desired result and if the infringement is established by a final decision of the courts or a judicial or extrajudicial settlement, the Contractor shall refund Company the fees effectively paid for that Deliverable by Company subject to depreciation for the period of Use, on a straight line depreciation over a 5 year period basis. The foregoing provides for the entire liability of the Contractor and the exclusive remedy of Company in matters related to infringement of third party intellectual property rights. The Company shall not be entitled to seek any indemnification from the Contractor unless the Company provides the Contractor with (i) prompt written notice of any claim, demand or action for which the Company is seeking or may seek indemnification hereunder and gives Contractor the right to have sole control over the defense and settlement negotiations; (ii) does not make any statement or admission in	

			relation to such claim which may prejudicially affect the chances of settlement or defense of such claim; (iii) reasonably cooperate with the Contractor in assisting the defense of the claim and in the negotiations or settlements of any such claim, demand or action by providing all assistance and information to perform the above obligations; and (iv) allow the Contractor, at its own expense, exclusively defend such litigation, negotiations and settlements with counsel of its own choosing. The Company warrants that all software, information, data, materials and other assistance provided by it under the Agreement shall not infringe any intellectual property rights of third parties, and agrees that it shall at all times indemnify and hold Contractor harmless from any loss, claim, damages, costs, expenses, including Attorney's fees, which may be incurred as a result of any action or claim that may be made or initiated against it by any third parties alleging infringement of their rights.	
950	81	30.0 TIMELY MOBILIZATION AND LIQUIDATED DAMAGES: a) Time is the essence of this Contract. If the CONTRACTOR fails to mobilize and deploy the required manpower/equipment and/or fails to commence the operation within the period specified as specified under mobilization clause under SCC, OIL shall have, without prejudice to any other right or remedy in law or contract including sub clause (b) below, the right to terminate the contract. b) If the contractor is unable to mobilize/deploy and commence the operation within the period specified in sub clause (a) above, it may request OIL for extension of the time with unconditionally agreeing for levy and recovery of LD. Upon receipt of such a request, OIL may at its discretion, extend the period of mobilization and shall recover from the CONTRACTOR, as an ascertained and agreed Liquidated Damages, a sum equivalent to @ 0.5% of contract	30.0 TIMELY MOBILIZATION AND LIQUIDATED DAMAGES: a) Time is the essence of this Contract. If the CONTRACTOR fails to mobilize and deploy the required manpower/equipment and/or fails to commence the operation within the period specified as specified under mobilization clause under SCC, OIL shall have, without prejudice to any other right or remedy in law or contract including sub clause (b) below, the right to terminate the contract. b) If the contractor is unable to mobilize/deploy and commence the operation within the period specified in sub clause (a) above, it may request OIL for extension of the time with unconditionally agreeing for levy and recovery of LD. Upon receipt of such a request, OIL may at its discretion, extend the period of mobilization and shall recover from the CONTRACTOR, as an ascertained and agreed Liquidated Damages, a sum equivalent to @ 0.5% of contract value including mobilization cost, per week or part thereof of delay subject to maximum of 7.5% of the affected/ delayed services. Contract Price. c) The parties agree that the sum specified above is not a penalty but a genuine pre-estimate of the loss/damage which will be suffered by OIL on account of delay on the part of the CONTRACTOR and the said	No change

		value including mobilization cost, per week or part thereof of delay subject to maximum of 7.5% of the Contract Price. c) The parties agree that the sum specified above is not a penalty but a genuine pre-estimate of the loss/damage which will be suffered by OIL on account of delay on the part of the CONTRACTOR and the said amount will be payable without proof of actual loss or damage caused by such delay. d) LD will be calculated on the basis of Total Contract value [(if not specified otherwise in SCC] excluding duties and taxes, where such duties/taxes have been shown separately in the contract. However, the applicable GST on the LD shall have to be borne by the CONTRACTOR. Accordingly, the liquidated damages shall be recovered from the CONTRACTOR along with applicable GST.	amount will be payable without proof of actual loss or damage caused by such delay. d) LD will be calculated on the basis of Total Contract value [(if not specified otherwise in SCC] excluding duties and taxes, where such duties/taxes have been shown separately in the contract. However, the applicable GST on the LD shall have to be borne by the CONTRACTOR. Accordingly, the liquidated damages shall be recovered from the CONTRACTOR along with applicable GST.	
951	83	32.0 SET-OFF: Any sum of money due and payable to the CONTRACTOR (including Performance Security refundable to them) under this or any other Contract, whether in progress or in future, may be appropriated by OIL and set-off against any claim of OIL (or such other person or persons contracting through OIL) for payment of a sum of money arising out of this contract or under any other contract made by the CONTRACTOR with OIL (or such other person or persons contracting through OIL).	32.0 SET-OFF: Any sum of money due and payable to the CONTRACTOR (including Performance Security refundable to them) under this or any other Contract, whether in progress or in future, may be appropriated by OIL and set-off against any claim of OIL (or such other person or persons contracting through OIL) for payment of a sum of money arising out of this contract or under any other contract made by the CONTRACTOR with OIL (or such other person or persons contracting through OIL).	No change
952	89	41.0 COMMISSION OF MISCONDUCT/SUBMISSION OF FRAUDULENT DOCUMENT BY THE BIDDER/CONTRACTOR AND BANNING THEREOF: The information and documents furnished by the bidder/CONTRACTOR in respect of the tender/contract are accepted by COMPANY to be true and genuine. However, if it comes to the notice of	41.0 COMMISSION OF MISCONDUCT/SUBMISSION OF FRAUDULENT DOCUMENT BY THE BIDDER/CONTRACTOR AND BANNING THEREOF: The information and documents furnished by the bidder/CONTRACTOR in respect of the tender/contract are accepted by COMPANY to be true and genuine. However, if it comes to the notice of the COMPANY anytime either during the pendency of the tender or after award of the contract or after completion the	No change

		the COMPANY anytime either during the pendency of the tender or after award of the contract or after completion the contract that a Bidder/CONTRACTOR furnished fraudulent document/false information in relation to the subject tender/contract or committed any misconduct, appropriate action shall be taken against the Bidder/CONTRACTOR for debarment/banning of the bidder/CONTRACTOR from participating in any future tender of the COMPANY in terms of the COMPANY's Banning Policy, 2023 besides making the CONTRACTOR liable for other penal action including termination of ongoing contract(s) at his/her risk and peril. In such event, the Performance Security in respect of ongoing contract(s) shall be forfeited by the COMPANY.	contract that a Bidder/CONTRACTOR furnished fraudulent document/false information in relation to the subject tender/contract or committed any misconduct, appropriate action shall be taken against the Bidder/CONTRACTOR for making them debarment/banning of the bidder/CONTRACTOR from participating in any future tender of the COMPANY in terms of the COMPANY's Banning Policy, 2023 besides making the CONTRACTOR liable for other penal action including termination of ongoing contract(s) at his/her risk and peril. In such event, the Performance Security in respect of ongoing contract(s) shall be forfeited by the COMPANY.	
953	92	44.0 TERMINATION:	44.0 TERMINATION: Notwithstanding anything to the contrary, If any amount due and payable to Contractor under the Agreement is more than 30 days overdue; and there is no dispute between Contractor and Company in relation to that amount, Contractor may issue Company a notice that payment is overdue. If Company fails to pay Contractor within 7 days after the date of such notice, Contractor may by a further notice to Company to terminate the Agreement or at its election withdraw services or stop performance of its obligations until payment is made. Notwithstanding the above, Contractor shall be paid the charges due for the services provided till the date of termination.	No change
954	297	APPENDIX-II INTEGRITY PACT Section:9 -Pact Duration This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the respective contract, and for all other Bidders 6 months after the contract has been awarded. If any claim is made/ lodged during this time, the same shall be binding and	APPENDIX-II INTEGRITY PACT Section:9 -Pact Duration This Pact begins when both parties have legally signed it. It expires for the Contractor 0612 months after the last payment under the respective contract, and for all other Bidders 36 months after the contract has been awarded. If any claim is made/ lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is	No change

		continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by Chairperson of the Principal.	discharged/determined by Chairperson of the Principal.	
955	101	3.2 | d | IoT systems are implemented for well head monitoring which are deployed in cloud.	1. On which cloud platform IoT System is deployed. 2. How and Which protocol, IoT data will be exposed? Is it OPC UA or API's 3. Is there any network connectivity avialble between Cloud network and L4 Business LAN at Duliajan network?	Please refer to amended OT Architecture
956	186	6.1 | aa | Tag capacity shall be 50,000 tags initially. The bidder shall ensure proper design of the OT Data Lake solution to process the above tag volume efficiently, with scalability for future expansion up-to 1,00,000 tags.	1. Do we need to consider hardware sizing as per 50000 tags or 100000 tags 2. What is the tags number segration per plant or site?	Hardware sizing to be as 100000 considering scalability
957	192	6.1 | b) b | Based on current requirement, the system shall be based on subscription licensing model for 50,000 tags with the capability of seamless expansion by 100% without the requirement of any additional changes to the architecture or hardware. 25 Named users shall be considered for the 5 years subscription period. (software AMC, ongoing support, updates and maintenance etc)	Can we considder 25 concurrent users as it would be more beneficial for more system usage by multple users.	Pl refer to amended clause, to be published
958	192	6.1 | b) c | n	1. Does source system has redudant servers or support high availability kind of architecture? 2. If source systtem expose data overr OPC US then does OPC UA server has HA (History Access) feature available? 3. If souce systems expose data over classic OPC protocols then does it have OPC HDA connectivity?	Please refer to amended OT Architecture

959	193, 194	6.1 | b) j | The system shall integrate and consolidate data from a variety of data sourcesincluding individual unit DCS, SCADA systems, automation systems,databases, controllers and devices including meters, IOT sensors with support to standard industry protocols: OPC-DA OPC-HDA OPC- A&E OPC-UA MODBUS TCP/IP IEC 61850 IEC 60870-5-104 DNP3 RDBMS BACNet MQTT SNMP	1. IEC 60870-5-104 : This protocol is very old and not used as standard connctors due to cyber security norms, can you please exclude this from list. 2. BACNet: This is buildning systems protocol, do we really require here, as per tender we need to integrate with DCS and SCADA systems and not the building systems.	Refer to amended OT Architecture
960	194	6.1 | b) k | All the above protocols shall be supported out of the box without requiring any external third-party converters or additional development for protocol conversion. It shall be ready to use plug and play type installations requiring only basic settings with protocol related configurations.	1. If bidder is going to support the entire system for 5 years as per AMC terms, and if bidder takes the ownership of protocols and provide support for third party third party convertor, then our request is to allow Third party convertors for OT integration as per requirement.	Refer to amended OT Architecture
961	194	6.1 | b) l | The data shall be acquired at the same frequency as the source data is updating.	1. Most of the DCS and SCADA system has sub second data, it is really required to capture all data in sub sescond? Can we consider 1or 2% of data is required at subsecond frequncy as perr use case and rest would be at 1 min scan frequency.	The proposed OT Data Lake solution shall be capable of acquiring, storing, processing, and visualizing data at the frequency required by the source systems and approved business/operational use cases. The actual data acquisition frequency, historian compression strategy, aggregation intervals, and retention approach shall be finalized during the detailed design phase based on identified source systems, operational requirements, KPI requirements, visualization needs, storage considerations, and performance objectives.
962	200, 201	6.1 | c) | c) OT System integration scope:	1. Please specify the communication protocol(s) through which each source system will expose data for historian integration (e.g., OPC DA, OPC HDA, OPC UA, Modbus TCP, etc.) and provide the details in the source sytem detail table 2. Request you to please specify the source system's operating system (e.g. windows server 2022, 2025 etc..)and will it allow to install tunneler component in case of across firewall communication with source system from buffer server. 3. Does source system has OPC A&E protocol available to collect alarms and event data, it is required for Alarms and evvent data collection. 4. Please confirm whether a common L3 network layer is available for all unit source systems, or if each unit operates on a dedicated and segregated L3 network. If segregated, please provide	Refer to amended OT Architecture

			details of the network boundaries and interconnectivity between the units.	
963	General	General | Networking at OT	Can you please share the detailed network topology diagram showing all network levels (L2, L3, L3.5/DMZ, and L4), including the location of each source system, switches, firewalls, and servers?	Refer to amended OT Architecture
964	General	General | Networking at OT	Are the L3, L3.5 (DMZ), and L4 network layers already established at the site, or are any of these layers planned to be created as part of the project scope?	Refer to amended OT Architecture
965	General	General | Networking at OT	1. Where is the proposed Historian Interface Server / Collector Server planned to be deployed (L2, L3, L3.5, or L4)? 2. Will the Historian Interface Server require connectivity to all source systems, and from which network level will such access be permitted? 3. Please confirm whether all source systems are reachable from the proposed Historian Interface Server location without violating cybersecurity policies.	Refer to amended OT Architecture
966	General	General | OT Data Lake Hardware - OnPrem	For the proposed on-premises OT Data Lake deployment, please confirm the preferred infrastructure approach. Can the solution be deployed on an existing virtualization platform (VMware/Hyper-V/Nutanix), or is dedicated bare-metal hardware required? Alternatively, would a hybrid architecture combining virtualized (for Archiving Server) and physical servers (For interface/buffer servers) be acceptable?	Refer to amended OT Server Amendments

967	31	3.2(A) | The bidder must have successfully executed/completed "Command & Control Centre Infrastructure Works, which includes supply, installation, integration and commissioning of Command & Control / Integrated Command Centre / War Room facilities including control-room civil & interior fit-out, video-wall(s), operator consoles, AV/VC systems and associated utilities" over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals | Bidder suggestion: The bidder must have successfully executed/completed "Command & Control Centre Infrastructure Works, which includes supply, installation, integration and commissioning of Command & Control / Integrated Command Centre / War Room facilities including control-room civil & interior fit-out, video-wall(s), operator consoles, AV/VC systems and associated utilities" over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals / Any Govt Project	We request to add Any Govt Project (Central/State Govt / PSU sector like, Airport, smart city SPVs etc), to widen the participation The bidder must have successfully executed/completed "Command & Control Centre Infrastructure Works, which includes supply, installation, integration and commissioning of Command & Control / Integrated Command Centre / War Room facilities including control-room civil & interior fit-out, video-wall(s), operator consoles, AV/VC systems and associated utilities" over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals / Any Govt Project	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
968	32	3.2 (B) | The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,97,99,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals: | Bidder suggestion: The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,97,99,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas /	We request to add Any Govt Project (Central/State Govt / PSU sector like, Airport, smart city SPVs etc), to widen the participation The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,97,99,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals / Any Govt Project:	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.

		Petrochemicals / Power / Utilities / Metals / Any Govt Project:		
969	32	3.2 (C) | The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,49,88,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals | Bidder suggestion: The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,49,88,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals / Any Govt Project	We request to add Any Govt Project (Central/State Govt / PSU sector like, Airport, smart city SPVs etc), to widen the participation The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,49,88,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals / Any Govt Project	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
970	32	3.2 (D) | The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 37,50,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals | Bidder suggestion: The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 37,50,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals / Any Govt Project	We request to add Any Govt Project (Central/State Govt / PSU sector like, Airport, smart city SPVs etc), to widen the participation The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 37,50,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals / Any Govt Project	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.

971	206	II. Data Aggregation & Storage a) | a) The system shall perform data cleansing, normalization, and validation to ensure consistency and accuracy.	Please Clarify Data Cleansing stands for " Identify and remove/correct duplicate, incomplete, invalid, or erroneous data." is our understanding clear?	Yes
972	208	V. Diagnostic & Descriptive Analytics: f) | f) Facilitates root cause analysis by linking anomalies to underlying operational data. | Bidder suggestion: Hence, we request that the requirement be suitably modified to specify that root cause information shall be received from the native/OEM system and displayed in the ICCC.	Root cause analysis is generally performed by the respective native/OEM system based on equipment-specific logic and diagnostics. The ICCC can receive the identified root cause from the native system and display it against the associated anomaly/event.	CCC shall ingest and display root-cause information from source/OEM systems where available and shall also provide the correlation, drill-down and analytical capabilities specified in the tender.
973	208	V. Diagnostic & Descriptive Analytics: g) | g) Provides automated correlation of operational events across distributed upstream assets (wells, pipelines, compressors) to identify patterns and potential risk areas. | Bidder suggestion: We request you to kindly amend the clause as follows: "The system shall receive and display correlated operational events, patterns, and potential risk information provided by the respective native/upstream systems."	Correlation and domain-specific analysis of operational events are generally performed by the respective native/upstream systems such as SCADA/DCS/asset-management systems. Requiring the ICCC to independently replicate such functionality may lead to duplication of existing capabilities, increased integration complexity, and potential inconsistencies with the system of record.	CCC shall provide cross-system event correlation, pattern identification and visualization using integrated OT/IT data. Correlated outputs from native systems may also be consumed and displayed.
974	209	IX. Easy New Asset, System, KPIs Configuration: d) | d) Supports creation and configuration of new KPIs linked to assets, processes, or locations without requiring complex programming. | Bidder suggestion: Requested Amendment: "The system shall provide customizable dashboards for configuring and displaying available	We request you to kindly amend the following clause, as the creation and configuration of new KPIs may require additional third-party tools, licenses, or customization, which may increase the overall solution cost. Hence, we request that the clause be suitably modified to focus on customizable dashboards for displaying available KPIs.	OIL will review and revert.

		KPIs linked to assets, processes, or locations.”		
975	209-210	XI. Functions in scope: | XI. Functions in scope: | Bidder suggestion: We request that the ICCC scope be limited to configuration and visualization of KPIs based on the finalized definitions and data/API availability.	We request you to kindly clarify whether the approximately 350–400 KPIs will be provided as finalized KPI definitions, including formulas, data sources, calculation logic, and required data fields, by the Client. Since KPI development and calculation may require integration with multiple source systems and additional customization.	OIL will review & revert
976	210	b) Detailed Technical Requirements: CCC Operations | The CCC platform shall be fully integrated commercial off the self (COTS) software platform that provides seamless integration and control mechanism with various Information Technology, Operational Technologies and IOT sensors/ applications/ platforms. • The solution shall provide the “day to day operation”, “Common Operating Picture” and situational awareness to the center and participating agencies during these modes of operation. • It shall improve scalability for large and geographically distributed environments. • It shall provide complete view of sensors, facilities, ERP, video streams and alarms in an easy-to-use and intuitive GIS-enabled graphical interface with a powerful workflow and business logic engine. • It shall provide a uniform, coherent, user-friendly, and standardized interface. • The dashboard content and layout shall be configurable, and information	We request you to kindly amend the following clause, as the creation and configuration of new KPIs may require additional third-party tools, licenses, or customization, which may increase the overall solution cost.	OIL will review and revert.

		displayed on these dashboards shall be filtered by the role of the person viewing dashboard. | Bidder suggestion: We request you to please ammend the last point of CCC Operations to "The system shall provide customizable dashboards with configurable content and layouts, with information displayed based on the role and access permissions of the respective user."		
977	210	b) Detailed Technical Requirements: Unified Value Chain View | The CCC platform should provide a responsive web interface with dynamic overlays, real-time data binding, and multi-monitor layout management; support tablet/mobile responsive breakpoints; integrate REST/GraphQL APIs with pagination, filtering, caching, and data validation pipelines; store data in secure time-series and relational databases. | Bidder suggestion: Accordingly, we request that the clause be amended as follows: "The CCC platform shall provide a responsive web interface with dynamic overlays, real-time data binding, multi-monitor layout management, and support for tablet/mobile responsive breakpoints. The platform shall support integration through standard APIs with capabilities such as pagination, filtering, caching, and data validation, and shall support secure storage and management of relational / time-series data using an enterprise-grade database."	We request you to kindly amend the clause to make the requirement technology-neutral and implementation-flexible, as the specified capabilities may be achieved through different application, API, and database architectures.	OIL will review and revert.

978	210-211	b) Detailed Technical Requirements: Asset & KPI Data Overlay on Map | The CCC platform should provide real-time sensor visualization with charts, heatmaps, threshold-based colour coding, and animated flow indicators; integrate push-based streaming APIs (WebSocket/SSE) for live updates; store sensor and visualization data in time-series and document- oriented databases. CCC platform should have a user interface or dashboard and schematics that connects a person to a machine system or a device to achieve human machine interface. The interface should provide displays with modern UI/UX design. System should provide multi-touch and gesture controls such as panning & zooming, swipe, clutter & declutter of graphical layers and a larger view of the process. | Bidder suggestion: Accordingly, request that the clause be amended as follows: "The system shall support relational and semi-structured/document data storage using an enterprise-grade database with native JSON/XML storage, querying, and processing capabilities."	We request you to kindly amend the clause to make the requirement technology-neutral.	OIL will review and revert.
979	211	b) Detailed Technical Requirements: Data and Analytics Engine | Data archive and logging: stores data feeds from the device engine and external data sources Platform should be able to perform multi-dimensional analysis on incidents data. This should provide capability to do Trends Analysis and provide near real time Stream Analytics, time-shifted or offline analytics on the archived data.	We request you to kindly amend the above clauses to make the requirements technology-neutral and implementation-flexible, as advanced time-series historian, stream analytics, and specialized data retrieval capabilities may be provided either natively or through integrated enterprise-grade systems. The availability and accuracy of such analytics are also dependent on the data format, frequency, quality, timestamps, and interfaces provided by the respective source systems.	OIL will review and revert.

		Reporting: delivers reports based on events triggered by device engine data and external notifications. CCC platform should have inbuilt Time-series historian (OT Data) with advance data retrieval. Platform should have following advance data retrieval modes like: • Time-in-state • Best fit • Counter • Minimum, maximum, average • Slope • Time weighted average • Cycle and delta • Value state • Interpolated • Integral • Full • Round trip System should be able to handle data coming in from system with mismatched system clocks, preserving the correct data sequence automatically | Bidder suggestion: Accordingly, we request that the clauses be amended as follows: "The CCC platform shall support data archiving, logging, reporting, trend analysis, near real-time and offline analytics of incident and operational data received from device engines and external data sources. The platform shall support integration with enterprise-grade /OT historian systems for advanced data retrieval and analytics, including time-in-state, minimum, maximum, average, time-weighted average and other applicable analytical functions. The system shall support appropriate timestamp handling and sequencing of data received from source systems with differing system clocks, subject		

		to the availability and accuracy of source timestamps.”		
980	212	b) Detailed Technical Requirements:Operation Management Interface | CCC platform should have a user interface or dashboard and schematics that connects a person to a machine system or a device to achieve human machine interface. The interface should provide displays with modern UI/UX design. System should provide multi-touch and gesture controls such as panning & zooming, swipe, clutter & declutter of graphical layers and a larger view of the process. Extensible library of pre-designed ‘intelligent’ and customizable visualization objects & templates CCC platform should have a client/server architecture to allow multiple client access to an Ethernet connected server. The workstation shall operate also as a stand-alone workstation/server. Should have built-in, real-time, and historical trending. Stunning graphic visual representation and interaction with operation bringing the right information to the right people at the right time UI/UX for CCC platform should supports multi-monitor. And shall works on both OS based native application as well as web-browser (RDP over HTML). CCC platform shall enable an operator to interact with various	We request you to kindly amend the clause to make the requirement web-based and technology-neutral, as native OS-based applications, standalone workstations/servers, and RDP-based interfaces may impose additional infrastructure and licensing requirements.	OIL will review and revert.

		devices including network nodes, recorders, input/output (I/O) systems, intelligent transmitters, and other field devices. | Bidder suggestion: Accordingly, we request that the clause be amended as follows: "The CCC platform shall provide a centralized web-based user interface accessible through standard web browsers, with modern UI/UX, responsive multi-monitor layouts, multi-touch and gesture controls such as pan, zoom, swipe, and clutter/declutter of graphical layers. The platform shall provide customizable visualization objects and templates, real-time and historical trending, and enable authorized operators to monitor and interact with connected devices through available standard interfaces/APIs."		
981	213	b) Detailed Technical Requirements:No-Code New Well, Asset, and KPI Addition | Provide a no-code configuration interface with guided wizards, drag-drop entity design, and template libraries; support workflow orchestration, dynamic schema management, and scalable system design; store configurations and templates in a storage. | Bidder suggestion: Hence, We request you to kindly remove this clause.	As the specified no-code configuration, dynamic schema management, workflow orchestration, and template library capabilities may require specialized third-party tools, additional licenses, and customization. These requirements may unnecessarily restrict the proposed solution architecture and increase the overall project cost.	No Change; To be guided by tender terms;
982	214	Enablement for Design Digital Twin functional requirements: | b. The CCC platform shall be able to connect to Digital Twin models through secure integration interfaces. c. The CCC platform shall provide an embedded Digital Twin viewer within the CCC UI to access and visualize the Digital Twin models (no	We request you to kindly clarify whether the Digital Twin models and associated Digital Twin platform/viewer will be provided by the Client/third-party system, and the CCC platform is required only to securely integrate with and embed the Digital Twin viewer within the CCC interface. Further, please clarify whether the scope of the CCC includes development/creation of Digital Twin models, or only integration and visualization of models provided through standard APIs/integration interfaces.	Phase-1 requires secure integration with Digital Twin models/platforms and an embedded viewer within the CCC UI for search, retrieval, visualization and collaboration. Creation of detailed Digital Twin models is not part of SOW. The bidder shall provide the integration, embedded viewing capability and associated licences required for the offered solution.

		separate/external application launch). The embedded Digital Twin experience in CCC shall provide a dashboard/UI for search, retrieval, and collaboration on Digital Twin information.		
983	40-41	Clause 3.3 / Annexure-A2 | Minimum 6 key personnel specified: Project Manager, Infrastructure Engineer, OT Integration Specialist, IT Integration Specialist, Business Data Lake Specialist, CCC Application Developer. | Bidder suggestion: Suggest OIL confirm if additional key roles are to be added to Annexure-A2 via corrigendum.	Given the significant cyber-security scope (Section 8) and turnkey civil/interior works (Section 5) in the RFP, kindly confirm whether a dedicated Cyber Security Specialist and/or Civil & Interior Lead are also mandatorily required as Key Personnel, or whether these are to be provided as 'additional manpower' outside the 6 listed roles.	OIL will review and revert.
984	41	Clause 3.4 | Bidder must complete mobilization within 30 days from date of LOA. | Bidder suggestion: Recommend aligning Clause 3.4 wording with the Implementation Schedule table to avoid ambiguity.	Considering the scope covers turnkey civil/interior works, procurement of long-lead OEM items (video walls, PAC, UPS) and deployment of 6 key personnel across 4 geographically distant locations, kindly confirm whether 30 days is meant only for team/office mobilization (kick-off, resumes, site surveys) as detailed in the Implementation Schedule (Table, Row 2), and not for material/equipment mobilization.	OIL will review and revert.
985	41-42	Clause 4.1 | Bidder's Annual Financial Turnover from Operations in any of the last 3 completed years must be ≥ INR 32,53,44,000.00.	Kindly confirm whether this turnover refers to the bidder's overall/consolidated company turnover (across all business lines) or specifically turnover from IT/OT/System-Integration/Command-Control-Centre related operations.	Clarified. To be guided as per tender document.
986	45	Clause 5.1 | Bids to be submitted as Un-priced Techno-Commercial Bid and Price Bid, with Bid Security submitted with the Techno-Commercial Bid.	Kindly confirm the acceptable formats/modes for Bid Security (BG / Demand Draft / Online payment) and whether a consolidated format for BEC-linked undertakings (Parent/Subsidiary/JV/Consortium) will be issued along with the pre-bid clarifications.	Clarified. To be guided as per tender document.

987	29-45	General - BEC Part-3 | In case of Consortium bids, the leader shall coordinate and OIL shall pay only the Leader; MOU must define scope split among members.	Kindly clarify whether payment terms/milestones will still need to be certified against each individual consortium member's certified scope of work, or whether milestone certification/payment will be solely against the Leader's overall deliverable, irrespective of internal MOU scope-split.	OIL will review and revert
988	100, 103	Clause 2.3 / 4.2 | CCC to be implemented at 4 locations: Corporate Office WTC Delhi, FHQ Duliajan, RF Jodhpur and PHQ Guwahati (AV + basic furnishing only). | Bidder suggestion: Request site visit / walkthrough to be arranged before bid submission for all 4 locations.	Kindly share detailed floor plans / carpet area / civil condition (bare shell vs. finished) / ceiling height and number of operator positions envisaged for each of the 4 CCC locations to enable accurate design, BOQ and cost estimation.	Available site information shall be shared/facilitated during site visit and detailed engineering. Bidders are advised to visit the locations and assess existing conditions. Final layout, BOQ and design shall be developed by the successful bidder based on verified site conditions and tender requirements.
989	103	Clause 4.5 | CCC application, IT middleware and data lake shall be deployed on a cloud-based platform (OT data to remain on-premises); OIL currently follows a multi-cloud strategy, majority on Microsoft Azure.	Kindly confirm whether the CCC application/middleware/IT data lake shall be hosted on OIL's existing Azure landing zone/subscription (with OIL bearing cloud consumption cost), or whether the bidder is required to provision and cost a separate cloud subscription as part of the bid.	OIL will review and revert
990	101-102	Clause 5 | Current state overview lists DCS/PLC/SCADA systems (Gas Management, TFMS, GGS, CBUS, RTPMA, NBPL/NSPL, RF SCADA) at a broad level; detailed list stated to be 'covered in the functional requirements section'.	Kindly provide a consolidated inventory (make, model, OEM, protocol, firmware/version, tag count per system) of all existing OT, IT and IoT systems targeted for integration, to enable accurate integration-effort and licensing estimation.	OIL will review and revert.
991	184-185	Clause 6.1(k)&(l) | Minimum 30 dashboards and 20 standard reports to be delivered; 'final list of dashboards and reports will be confirmed during detailed engineering.' | Bidder suggestion: Suggest capping 'no additional cost' changes to +/-10% variance from the stated minimums.	Kindly share an indicative/illustrative list (or category-wise breakup, e.g., production, HSE, exploration) of the 30 dashboards and 20 reports envisaged at RFP stage, to enable realistic effort estimation. Also clarify the change-management/costing mechanism if the finalized list during detailed engineering exceeds the minimum numbers stated.	The indicative dashboard/report list and detailed definitions shall be finalized jointly during Blueprint workshops. The bidder shall deliver at least 30 dashboards and 20 standard reports and shall accommodate the finalized requirements within the tendered scope.

992	185	Clause 6.1(aa) | Tag capacity: 50,000 tags initially, scalable up to 1,00,000 tags in future.	Kindly clarify the trigger/timeline for scaling from 50,000 to 1,00,000 tags, and confirm whether the cost of scaling (additional licenses/infrastructure) is to be included in the current bid price or will be dealt with as a separate future scope/change order.	The solution shall be licensed and sized for 50,000 tags initially and be scalable to 100,000 tags. The bidder shall include the architecture and commercial provisions required to meet the stated scalability requirement as per the tender.
993	185	Clause 6.1(y) | OT Data Lake shall retain all historical operational data for a minimum of 10 years.	Kindly confirm the expected data generation rate/frequency (tag scan rate, event/alarm volume) to enable accurate storage sizing for 10-year retention, or advise if OIL will provide storage sizing assumptions as part of the technical specifications/BoQ.	The bidder shall size the OT Data Lake for the specified retention and tag capacity based on assessment of source systems during Blueprint/Detailed Design. The solution shall support configurable collection frequencies and retain operational data for a minimum of 10 years.
994	185	Clause 6.1(cc) | 'Licenses shall be subscription based as per OIL's preference and include support and updates for the contract duration.'	Kindly confirm OIL's preferred licensing model (subscription vs. perpetual with AMC) for the OT Data Lake, IT middleware, and CCC application platforms, along with expected number of named/concurrent user licenses, to enable accurate and comparable commercial bids across bidders.	OIL will review and revert.
995	185-186	Clause 6.1(ee) | Bidder shall migrate a minimum of 2 years of historical data 'wherever available' from all integrated OT/IoT systems.	Kindly specify which of the existing OT/IT systems currently have 2 years of historical data available, along with the source format/database/protocol for each, to enable accurate migration-effort estimation and avoid ambiguity around 'wherever available'.	The bidder shall migrate at least two years of historical data wherever available. Source-system availability, formats and interfaces shall be assessed and finalized during Blueprint/Detailed Design.
996	220	Clause 8.3(e) | VAPT to be conducted once before Go-live and at least once every year during the 5-year AMC through a CERT-In empanelled agency, at bidder's responsibility.	Kindly confirm whether the bidder is required to engage and bear the cost of the CERT-In empanelled VAPT agency for all 6 VAPT cycles (1 pre-Go-live + 5 annual) within the quoted AMC price, or whether OIL will separately engage/pay the VAPT agency.	Confirmed. The bidder shall engage a CERT-In empanelled agency and bear the cost of VAPT before Go-Live and at least annually during the five-year AMC, as specified in the tender.

997	221	Clause 9.1(b) & 9.2 | Phase-2 (AI/ML predictive analytics, Conversational AI, new system integration) is 'Future Scope', to commence post 6-month stabilization after Go-live.	Kindly confirm whether Phase-2 is part of the current tender's technical/commercial evaluation (e.g., as an indicative BOQ item) or whether it will be procured through a separate future tender/negotiation, so that bidders can appropriately scope their Phase-1 architecture for extensibility without over/under-pricing Phase-2.	Phase-2 is identified as future scope. The Phase-1 solution shall be designed for extensibility and future integration of the listed AI/ML capabilities. Any commercial procurement for Phase-2 shall be taken up separately by OIL as applicable.
998	221-222	Implementation Schedule (Cl. 9.2, Sr. 4) | Infrastructure Setup (incl. delivery of video wall, PAC, UPS, Fire Detection etc.) to be completed by T0+6 Months, with OT/IT Data Lake setup by T0+7 months and Go-live by T0+10 months. | Bidder suggestion: Suggest extending overall timeline to 12 months or building a contingency buffer of 4-6 weeks for long-lead OEM procurement.	Considering typical OEM lead times of 12-16 weeks for video wall systems, precision AC and UPS, kindly confirm whether the 10-month overall project duration is fixed/firm, and clarify the Liquidated Damages (LD) structure applicable in case of OEM-driven delivery delays beyond the bidder's control.	OIL will review and revert.
999	223	Clause 10 | Training to be delivered 'as per mutually agreed schedule' with role-based sessions for operators, supervisors and administrators; no fixed number of batches/sessions specified.	Kindly specify the expected number of training batches/sessions, participants per batch, and duration (in days) for Operations Training and Maintenance & Administration Training, to enable accurate costing of the training deliverable.	The bidder shall propose a detailed role-based training plan covering the required user groups, batches, duration, content and locations. The final schedule and batch plan shall be mutually finalized during implementation, with all required training included in bidder scope.
1000	224	Clause 11.6(d) | All Go-Live documentation to be stored in a centralized digital repository (e.g., SharePoint, internal drive) with metadata tagging and role-based access.	Kindly confirm whether OIL will provide the SharePoint/repository platform and licenses for this purpose, or whether the bidder is required to procure/host such a repository as part of the project cost.	OIL shall provide access to an available centralized repository, such as SharePoint/internal drive, where applicable. The bidder shall prepare, classify, tag and upload all required project and Go-Live documentation and configure the repository structure/access within the available platform.
1001	226-228	Clause 12(II) | Minimum AMC manpower (Team Lead, Engineer/Operator, System/Application Administrator, System Integration Engineer) specified only for CO-Delhi and FHQ-Duliajan; no dedicated manpower listed for RF-Jodhpur or PHQ-Guwahati.	Since Phase-1 scope includes full CCC setup at RF-Jodhpur and AV/basic furnishing at PHQ-Guwahati, kindly confirm the AMC support model for these two locations - e.g., remote monitoring from CO/FHQ vs. periodic site visits vs. dedicated local resource - and specify minimum visit frequency/response SLA for hardware breakdowns at these sites.	AMC support shall cover all project locations. The bidder shall provide remote and on-site support, preventive maintenance and site visits as required to meet the SLA, irrespective of the minimum resident manpower locations specified in the tender.

1002	105-183	General - Section 5 (Control Room Infra) | Turnkey civil, electrical, interior, HVAC, fire & safety and AV works to be executed by bidder across all locations.	Kindly confirm the existing power supply capacity (with spare load available) at each of the 4 sites, and whether standby power (DG set) is already available or is to be additionally provisioned by the bidder as part of the turnkey scope.	Available power and standby-power details shall be verified during site survey. The bidder shall assess the loads and provide all electrical distribution, UPS and associated infrastructure within the turnkey scope. Existing OIL utilities may be used only where confirmed as available and suitable.
1003	215-218	General - AMC (Section 7) | Bidder to maintain adequate stock of critical spares; if a component is beyond repair, replace with same/equivalent-or-superior model.	Kindly clarify OIL's expectation on maintaining a mandatory minimum spares inventory (list/quantity) on-site during the 5-year AMC period, and the process/cost-sharing for replacement of any OEM component that reaches End-of-Life/End-of-Support-Life (EOL/EOSL) during the AMC tenure.	The bidder shall maintain adequate critical spares to meet the contractual SLA throughout AMC. Replacement of failed or EOL/EOSL components with the same or equivalent/superior supported model, including compatibility and licensing, shall be in bidder scope at no additional cost to OIL.
1004	219-220	General - Cyber Security (Section 8) | Section 8.3(k) requires routing logs, alerts and anomalies to the 'existing SOC' for continuous monitoring; SOC already exists per Clause 3.3(e) of Current State Overview.	Kindly confirm whether integration of CCC logs/alerts with OIL's existing SOC (including any SIEM connector licensing, if required) is within the bidder's scope of supply, or whether OIL's existing SOC/SIEM vendor will independently onboard the CCC as a log source.	OIL will review and revert.
1005	1	Clause 2.0 B	Extension of time for the bid submission as the the bid is large and dependent on the input from various OEMs and in work has to be carried out at multiple locations. We request to extend the bid submissions by atleat 2 weeks. The submission is due on 4th September 2026	OIL will review and revert.
1006	2	Clause 2.(I)	Performance security is fixed at 10 % which is extremely high as standard practice for all the other tenders is at 5 % or 2 %	OIL will review and revert.

1007	31	Clause 3.1, Part-3 (BEC)	Manufacturer's Authorization Form (MAF) is sought from OEMs for 7 product categories (Video Wall Screen, Video Wall Controller, Servers, VC System, UPS, PAC, Fire Alarm & Suppression System). Request OIL to confirm whether MAF is mandatorily required from each OEM individually at bid stage itself, or can be submitted after LOA for OEMs not yet finalized.	OIL will review and revert.
1008	31	Clause 3.2(A), Part-3 (BEC)	Experience Criteria 'A' (Command & Control Centre Infrastructure Works) prescribes threshold values (single job ≥ INR 42.39 Cr / two jobs ≥ INR 26.49 Cr each / three jobs ≥ INR 21.19 Cr each). R equest OIL to clarify whether 'executed value' means gross contract value or the value certified/paid, and whether GST is to be included or excluded while computing this value.	Executed value is exclusive of GST.
1009	31	Clause 3.2(A), Part-3 (BEC)	Experience Criteria 'A' (Command & Control Centre Infrastructure Works) prescribes threshold values (single job ≥ INR 42.39 Cr / two jobs ≥ INR 26.49 Cr each / three jobs ≥ INR 21.19 Cr each). The Works executed should be supply, installation, integration, commissioning of CCC/War Room facilities incl. civil & interior fit-out, video-wall(s), operator consoles, AV/VC systems. It is requested OIL to consider the exact same works executed at other facilities called NOC/SOC shall be considered as valid experience. This will help increase healthy competition in bidding inturn beneficial financially for Oil india	OIL will review and revert on experience criteria.
1010	31	Clause 3.2(A), Part-3 (BEC)	Experience Criteria 'A' A. The bidder must have successfully executed/completed “Command & Control Centre Infrastructure Works, which includes supply, installation, integration and commissioning of Command & Control / Integrated Command Centre / War Room facilities including controlroom civil & interior fit-out, video-wall(s), operator consoles, AV/VC systems and associated utilities” It is requested OIL to consider “Command & Control Centre / Data Center Infrastructure Works which includes supply, installation, integration and commissioning of Command & Control / Integrated Command Centre / War Room facilities including controlroom civil & interior fit-out, video-wall(s), operator consoles, AV/VC systems and associated utilities” This will help increase healthy competition in bidding inturn beneficial financially for Oil india	OIL will review and revert.

1011	31	Clause 3.2(A), Part-3 (BEC)	Command & Control Centre Infrastructure Works (supply, installation, integration, commissioning of CCC/War Room facilities incl. civil & interior fit-out, video-wall(s), operator consoles, AV/VC systems) executed in last 7 years in Oil & Gas/Petrochemicals/Power/Utilities/Metals sector. We request OIL to ammend this as Oil & Gas / Petrochemicals / Power / Utilities / Metals sector / Any Govt. / Semi Govt. / Govt. undertaking / Private Works. We believe other government sector holds equal importance and criticality as above mentioned sectors. This will help increase healthy competition in bidding inturn beneficial financially for Oil india	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
1012	32	Clause 3.2(B,C,D), Part-3 (BEC)	Criteria B, C & D each require a single qualifying contract of specified minimum value for OT Data Acquisition, IT Middleware Integration, and C&C Applications/Dashboards respectively. Request OIL to confirm if the same single reference project can be used to simultaneously satisfy criteria B, C and D if it covers all three scopes, or whether three distinct contracts are mandatorily required.	OIL will review and revert with more clarity.
1013	31-32	Clause 3.2(B), Part-3 (BEC)	The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,97,99,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals: OT Data Acquisition & Industrial Data Ingestion: Consumption of both real-time and historical OT/industrial data from OPC UA, OPC DA, OPC HDA, or equivalent industrial data gateways or servers provisioned by the respective OT systems, followed by ingestion of this data into a centralized OT data lake, historian, time-series database, or operational data platform, along with asset-wise data modelling encompassing tag mapping contextualisation. W e request OIL to ammend this as Oil & Gas / Petrochemicals / Power / Utilities / Metals sector / Any Govt. / Semi Govt. / Govt. undertaking / Private Works. We believe other government sector holds equal importance and criticality as above mentioned sectors. This will help increase	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.

1014	32	Clause 3.2(C), Part-3 (BEC)	The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,49,88,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals: Enterprise IT & Middleware Integration: The scope covers the design and deployment of IT middleware, enterprise integration platforms, APIs, or ESB (Enterprise Service Hub) solutions to enable seamless integration of enterprise and departmental IT systems—such as ERP, EAM, HSE, GIS, monitoring, and other business applications—along with the establishment of real-time and batch data pipelines for ingestion into centralized IT or business data lakes and analytics platforms. W e request OIL to ammend this as Oil & Gas / Petrochemicals / Power / Utilities / Metals sector / Any Govt. / Semi Govt. / Govt. undertaking / Private Works.. We believe other government sector holds equal importance and criticality as above mentioned sectors. This will help increase healthy competition in bidding inturn beneficial financially for Oil india	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
1015	32	Clause 3.2(D), Part-3 (BEC)	The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 37,50,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals: Command & Control Applications, Dashboards & Decision Support : Delivered an application / dashboard for a Command & Control Centre / Centralised Visualisation Dashboard covering interactive dashboards, real-time analytics, configurable alerts/alarms and automated workflows. We request OIL to ammend this as Oil & Gas / Petrochemicals / Power / Utilities / Metals sector / Any Govt. / Semi Govt. / Govt. undertaking / Private Works. We believe other government sector holds equal importance and criticality as above mentioned sectors. This will help increase healthy competition in bidding inturn beneficial financially for Oil india	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.

1016	33	Clause 3.2.1(v), Part-3 (BEC)	Work executed through sub-contracting is stated as not considered for evaluation of experience. Request OIL to clarify whether experience of a proposed OEM/System Integration partner (engaged as a named sub-contractor with defined scope) can be considered, given the technology-integration nature of this project.	Oil will review and revert.
1017	24 of 42 GCC	Clause 30.0, Part-4 Section-I (GCC)	Timely Mobilization Liquidated Damages are prescribed at 0.5% of contract value (including mobilisation cost) per week of delay, subject to a maximum of 7.5%. Request OIL to clarify whether this LD and the separate Go-Live LD under SLA (Clause 4.3, Part-4 Section-IV) are mutually exclusive/cumulative, or capped in aggregate.	No change in GCC
1018	246	Clause 4.3, Part-4 Section-IV (SLA)	For delay in final Go-Live, LD of 0.5% of Implementation Cost per week (max 7.5%) is specified. Request OIL to define 'Implementation Cost' precisely with reference to the BOQ Price Schedule sections cited as its constituents, to avoid ambiguity in LD computation.	OIL will review and revert.
1019	261- 262	Table B - Payment Terms, Part-4 Section-IV	Payment milestones are linked to completion of BOQ items across five sites (Infrastructure Setup, OT/IT Data Lake Setup, System Integration). Request OIL to confirm whether milestone payments are released site-	OIL will review and revert.
1020	247	Clause 4.4(6,7,8), Part-4 Section-IV (SLA)	A penalty of Rs. 10,000/- per day per person is prescribed for absence of AMC/Hypercare resources, deductible from quarterly AMC invoice/Hypercare payment, in addition to the SLA-based performance penalty capped at 7.5% of quarterly contract value. Request OIL to clarify whether the manpower-absence penalty is within or over and above the 7.5% cap.	OIL will review and revert.

1021	247	Clause 4.4(5), Part-4 Section-IV (SLA)	Uptime SLA of the solution is specified as 99.95% during AMC. Request OIL to clarify the measurement window (monthly/quarterly), whether scheduled maintenance windows are excluded, and the calculation methodology (component-wise vs. overall solution).	SLA, uptime, service-credit and liquidated-damage provisions shall be governed by the applicable GCC/SCC clauses of the tender document.
1022	219, 262	Table B (Item 8), Part-4 Section-IV / Clause 8, Cyber Security Requirements	VAPT is to be conducted once before Go-Live and annually during the 5-year AMC, paid on actuals against submission of VAPT certificate. Request OIL to confirm whether VAPT is to be carried out by a CERT-In empanelled agency and whether the cost is to be quoted separately in the BOQ or is deemed included elsewhere.	VAPT shall be conducted through a CERT-In empanelled agency before Go-Live and annually during AMC, as specified in the tender. Bidder shall quote for VAPT against BOQ Item H1.
1023	2	Forwarding Letter (i) & (j) / Clause 9.0, ITB	Bid Security Amount of Rs. 2,34,78,000/- is prescribed with validity of 165 days from Original Bid Closing Date, against a Bid Validity of 120 days. Request OIL to clarify the reason for Bid Security validity exceeding Bid Validity by 45 days and confirm the extension mechanism if the bid validity itself is extended.	Clarified. To be guided as per tender clause.
1024	2-3	Forwarding Letter (n), Page 2-3	Contract duration is 70 months (10 months Implementation + 60 months AMC including 4 months Hypercare), with OIL having an option to extend by up to 1 additional year on the same terms. Request OIL to clarify whether pricing/rates for the extension year are to be quoted at bid stage itself or will be mutually negotiated at the time of exercising the extension option. bas 5 years is a long period for the ever evolving technologies	OIL will review and revert.
1025	Page 116	A4.1.5	The current specification refers to AES-128 or better encryption. We request to clarify and/or amend the clause to allow products utilizing AES-128 or stronger encryption with validated cryptographic security modules, including FIPS validated modules or equivalent industry-recognized cryptographic validation standards.	No change, to be guided by tender terms

1026	Page 117	A4.1.17	HDR and Stereoscopic 3D support are specialized features generally required for controlware driving 3D display or Visual setup. Such requirements unnecessarily restrict participation of IP KVM extenders Brands if the end-use application does not specifically require full canvas of large display.	No change, to be guided by tender terms
1027	Page 118	A4.1.31	Need clarification on the fucntionality, from user persective	The operators should be able to interact with visualized content and connected sources through a touch-enabled interface supporting standard gestures such as zoom, pan, navigation, source selection, and other appropriate multi-touch interactions where supported by the source application and system architecture. Bidders may propose equivalent or superior solutions. However, the functionality for multi-touch interaction and gesture-based control of visualized content shall remain available as specified in the tender.
1028	Page 117	A4.1.25	"The requirement for a 'Multifunctional Keyboard with Programmable Keys' is proprietary feature associated with a specific manufacturer only. Specifying such a feature may unnecessarily restrict competition and limit participation by other qualified and proven vendors whose solutions meet the operational and performance requirements of the project. We respectfully request that the specification be revised to focus on functional performance criteria rather than brand-specific or proprietary features, thereby ensuring a fair, open, and competitive bidding process."	OIL will review and revert
1029	Page 121	A6.7	The requirement of 24 controller outputs appears disproportionate to the specified LED wall size and resolution. Different LED manufacturers use different controller architectures and output capacities. Therefore, specifying a fixed number of outputs may unnecessarily restrict equivalent solutions. We request that the requirement be modified to 'sufficient outputs to achieve the specified native resolution with the required redundancy and HDR/3D functionality' rather than mandating a fixed output count."	No change, to be guided by tender terms

1030	Page 149	B4.3.1	HDR and Stereoscopic 3D support are specialized features generally required for controlware driving 3D display or Visual setup. Such requirements unnecessarily restrict participation of IP KVM extenders Brands if the end-use application does not specifically require full canvas of large display.	No change, to be guided by tender terms
1031	Page 150	B4.4	"The requirement for a 'Multifunctional Keyboard with Programmable Keys' is proprietary feature associated with a specific manufacturer only. Specifying such a feature may unnecessarily restrict competition and limit participation by other qualified and proven vendors whose solutions meet the operational and performance requirements of the project. We respectfully request that the specification be revised to focus on functional performance criteria rather than brand-specific or proprietary features, thereby ensuring a fair, open, and competitive bidding process."	OIL will review and revert
1032	Page 150	B4.4.6	Need clarification on the fucntionality, from user persective	The operators should be able to interact with visualized content and connected sources through a touch-enabled interface supporting standard gestures such as zoom, pan, navigation, source selection, and other appropriate multi-touch interactions where supported by the source application and system architecture. Bidders may propose equivalent or superior solutions. However, the functionality for multi-touch interaction and gesture-based control of visualized content shall remain available as specified in the tender.
1033	Page 153	B6.7	The requirement of 24 controller outputs appears disproportionate to the specified LED wall size and resolution. Different LED manufacturers use different controller architectures and output capacities. Therefore, specifying a fixed number of outputs may unnecessarily restrict equivalent solutions. We request that the requirement be modified to 'sufficient outputs to achieve the specified native resolution with the required redundancy and HDR/3D functionality' rather than mandating a fixed output count."	OIL will review and revert

1034	Page 167	C3.1.3	The current specification refers to AES-128 or better encryption. We r request to clarify and/or amend the clause to allow products utilizing AES-128 or stronger encryption with validated cryptographic security modules, including FIPS validated modules or equivalent industry-recognized cryptographic validation standards.	No change, to be guided by tender terms
1035	Page 168	C3.3.1	HDR and Stereoscopic 3D support are specialized features generally required for controlware driving 3D display or Visual setup. Such requirements unnecessarily restrict participation of IP KVM extenders Brands if the end-use application does not specifically require full canvas of large display.	No change, to be guided by tender terms
1036	Page 117	A 4.1.25	"The requirement for a 'Multifunctional Keyboard with Programmable Keys' is proprietary feature associated with a specific manufacturer only. Specifying such a feature may unnecessarily restrict competition and limit participation by other qualified and proven vendors whose solutions meet the operational and performance requirements of the project. We respectfully request that the specification be revised to focus on functional performance criteria rather than brand-specific or proprietary features, thereby ensuring a fair, open, and competitive bidding process."	OIL will review and revert
1037	Page 171	C5.7	The requirement of 24 controller outputs appears disproportionate to the specified LED wall size and resolution. Different LED manufacturers use different controller architectures and output capacities. Therefore, specifying a fixed number of outputs may unnecessarily restrict equivalent solutions. We request that the requirement be modified to 'sufficient outputs to achieve the specified native resolution with the required redundancy and HDR/3D functionality' rather than mandating a fixed output count."	OIL will review and revert
1038	Page 178	D3.3.1	HDR and Stereoscopic 3D support are specialized features generally required for controlware driving 3D display or Visual setup. Such requirements unnecessarily restrict participation of IP KVM extenders Brands if the end-use application does not specifically require full canvas of large display.	No change, to be guided by tender terms

1039	Page 179	D3.4	"The requirement for a 'Multifunctional Keyboard with Programmable Keys' is proprietary feature associated with a specific manufacturer only. Specifying such a feature may unnecessarily restrict competition and limit participation by other qualified and proven vendors whose solutions meet the operational and performance requirements of the project. We respectfully request that the specification be revised to focus on functional performance criteria rather than brand-specific or proprietary features, thereby ensuring a fair, open, and competitive bidding process."	OIL will review and revert
1040	Page 182	D5.7	The requirement of 24 controller outputs appears disproportionate to the specified LED wall size and resolution. Different LED manufacturers use different controller architectures and output capacities. Therefore, specifying a fixed number of outputs may unnecessarily restrict equivalent solutions. We request that the requirement be modified to 'sufficient outputs to achieve the specified native resolution with the required redundancy and HDR/3D functionality' rather than mandating a fixed output count."	OIL will review and revert
1041	31	Cl. 3.1	Tender-specific MAF required from OEMs of: Video Wall Screen, Video Wall Controller, Servers, VC System, UPS, PAC, and Fire Alarm & Suppression System. For utility items such as UPS, PAC and Fire Alarm & Suppression System, kindly confirm that an MAF issued by the OEM's Indian subsidiary or authorized national distributor shall be acceptable.	OIL will review and revert.
1042	31	Cl. 3.2, Criterion A	Experience Criterion A: Command & Control Centre infrastructure works executed over the last 7 years in Oil & Gas / Petrochemicals / Power / Utilities / Metals sectors. Command & Control Centre / Integrated Command & Control Centre projects of comparable scope and complexity have largely been executed in India for Government entities (Smart City ICCCs, police/city command centres, airports, railways and other public infrastructure). Kindly confirm whether such CCC/ICCC works executed for Government/PSU clients outside the five listed sectors shall be considered against Criterion A. Kindly also define the coverage of the term 'Utilities' (e.g., whether water utilities, city gas distribution, airports and telecom networks are included).	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.

1043	31-33	Cl. 3.2 (A to D) & 3.2.1	Bidder must meet all four experience criteria A, B, C and D, supported by contract documents and Job Completion Certificate / Certificate of Payment. Kindly confirm that: (i) a single contract whose scope covers more than one of the criteria A-D may be cited against each such criterion, with values apportioned scope-wise; and (ii) the qualifying value shall be the executed/completed value certified in the JCC/COP, inclusive of taxes and duties.	Clarified. Qualifying value shall be exclusive of GST.
1044	38-39	Cl. 3.2.2 (IV)	Consortium bids permitted (maximum 3 members); collective experience of members shall meet Cl. 3.2; members contributing experience must execute the corresponding portion of work as defined in the MoU. In case of a consortium bid, kindly confirm: (i) whether the eligibility requirements of incorporation in India and minimum 20% local content (BEC Cl. 2.0) apply to the consortium leader, to each member, or to the consortium as a whole; and (ii) that the scope division defined in the notarized MoU shall govern the mapping of each member's experience to Criteria A-D.	Clarified. It will be calculated collectively as per terms of the tender.
1045	42, 281	Cl. 4.3(b) read with Proforma-M	Working capital shortfall may be supplemented thro ugh line of credit from a scheduled commercial bank 'as per enclosed Proforma-WC'. Proforma-M (Format for Line of Credit) is marked 'NOT APPLICABLE'. Proforma-WC referred to in Cl. 4.3(b) is not enclosed with the tender, while Proforma-M is marked 'Not Applicable'. Kindly clarify whether supplementing working capital through a line of credit is permitted and, if so, kindly provide the applicable format.	OIL will review and revert.
1046	49	Cl. 6.14	Total Estimated Contract Cost T = A+B+C+D+E+F, where A = Core Platform & Functional Modules, B = Integrations & Data Services, C = Implementation & Delivery Charges, D = Licenses/Hardware/Cloud, E = AMC Charges, F = Manpower & Mobilization Charges. The components A-F in Cl. 6.14 do not correspond to Sections A-K of the Price Bid Format / SOR. Kindly confirm that: (i) the inter-se ranking (L-1) shall be determined on the grand total of Proforma-B (SOR Sections A to K) inclusive of GST; and (ii) whether the optional items K1-K3 shall be included in the evaluated price.	L1 shall be decided based on SOR Section A to K

1047	76	Cl. 24.1	Contractor shall not subcontract, transfer or assign the contract or any part thereof; except for the main services, petty support services may be sub-contracted subject to Company's prior written approval. The project spans several specialized disciplines - civil & interior fit-out, AV/video-wall integration, application development, OT data-lake implementation and statutory VAPT (which the tender itself requires to be conducted through a CERT-In empanelled agency). Kindly confirm that the successful bidder may, with OIL's prior written approval, engage specialist agencies for defined work packages, with the bidder remaining solely and fully responsible for the complete scope, consistent with GCC Cl. 1.2.6/1.2.7 and Exhibit-I (Undertaking for works involving possibility of sub-contracting).	No change in GCC
1048	81, 247	GCC Cl. 30(b); SCC Part-D Cl. 4.3	GCC 30(b): LD @ 0.5% of contract value per week (max 7.5%) for delay in mobilization/commencement. SCC SLA 4.3: LD @ 0.5% of Implementation Cost per week (max 7.5%) for delay in final Go-Live. Kindly confirm that liquidated damages for delay shall be levied once, on the Implementation Cost component only, and shall not be applied cumulatively under both clauses for the same period of delay.	No change in GCC
1049	105, 238	SOW Cl. 4.25; SCC Part-C (Documentation)	All source code, models, workflows, dashboards and platform customizations shall be the intellectual property of OIL; the entire solution developed shall be the property of OIL. The SOW concurrently mandates a fully integrated COTS software platform (Cl. 6.3, Detailed Technical Requirements). Kindly confirm that the IPR assignment applies to bespoke/custom-developed artefacts (custom code, configurations, dashboards, workflows, integration adapters), while COTS/OEM software platforms shall continue to be governed by the respective OEM licence terms with OIL as the named licensee/beneficiary.	OIL will review and revert.
1050	105	Cl. 5(ii)	Bidder shall conduct a pre-bid site visit to study and evaluate the physical conditions and spaces designated for the Command & Control setup. Kindly confirm whether the pre-bid site visit is mandatory for bid submission and how the visit is to be evidenced. It is requested that OIL notify facilitated site-visit windows and nodal officers for all four locations (CO WTC Delhi, FHQ Duliajan, RF Jodhpur and PHQ Guwahati) sufficiently in advance of the bid closing date.	Bidders are free to make site visit

1051	106- 107, 114	Cl. 5.1(b)/(c); Spec A2.20	Existing layout configuration for each site is presented in the document; LED wall curve to be 'as per the drawing provided'. The existing room layout drawings/images referenced are not legible in the tender PDF, and the curve drawing referred to in A2.20 is not enclosed. Kindly issue dimensioned layout drawings (CAD/PDF) of all four rooms, the LED wall curve drawing and available as-is site condition details as an addendum.	OIL will review and revert.
1052	113- 114, 145- 146, 175- 176	Specs A2/B2/D2 (incl. A2.8, A2.11, A2.19)	Active curved LED displays: pixel pitch 0.93 mm or lesser, COB full flip-chip, HDR10+, refresh rate 7680 Hz or higher, 16-bit, active stereoscopic 3D; certifications: BIS and Low Blue Light / Eye Comfort; screen sizes with tolerance +/- 0.2 m. (i) Large-format LED display cabinets are presently not covered under the BIS Compulsory Registration Scheme; kindly confirm the acceptable certification route (e.g., BIS for applicable sub-assemblies/power supplies, or OEM undertaking supported by international safety certifications). (ii) Kindly confirm that simultaneous operation of HDR10+ and active-3D at the stated refresh rate shall be accepted as per the OEM's published datasheet trade-offs. (iii) Kindly confirm that the +/- 0.2 m size tolerance is intended to accommodate the standard cabinet modularity of the offered OEM.	>Certification is required against Active LED Display only; >C2.21 & D2.21 to be removed >Specifications will be validated from OEM published datasheet vis-à-vis tender requirement
1053	125- 126	Spec A7 (A7.4)	Multi-user 3D stereoscopic immersive simulation system supporting industry-leading 3D CAD and visualization software without file conversions, including Petrel, ArcGIS and more. Kindly confirm that licences of the host applications (Petrel, ArcGIS and similar) and the corresponding 3D/GIS datasets shall be provided by OIL, with the bidder's scope limited to supply, integration and commissioning of the visualization/VR layer and associated hardware.	OIL will review and revert.
1054	133- 134	Spec A11 (A11.15-A11.25)	Holographic box with real-life 3D AI-based character creation, integration with Generative AI/LLM of company assets, interactive CMS; 'consider AI-enabled GPU servers integrated with the holographic system'. Kindly clarify: (i) whether the Generative AI/LLM is to be hosted on-premises or on cloud; (ii) the knowledge corpus (documents/media) to be provided by OIL; (iii) languages required beyond English and Hindi, if any; (iv) the minimum sizing/specifications expected for the 'AI-enabled GPU servers' under A11.20; and (v) the acceptance criteria for the AI assistant functionality.	OIL will review and revert.

1055	192, 200	Cl. 6.1(b)(b) & 6.1(vvv)	25 named users considered for the 5-year OT Data Lake subscription; OT Data Lake visualization tool shall be able to handle up to 500 simultaneous connections. Kindly reconcile the licensed user basis for the OT Data Lake: whether the subscription is to be priced for 25 named users, with the 500-simultaneous-connection figure denoting a platform capability rather than a licensing requirement.	OIL will review and revert
1056	201- 204	Cl. 6.2	IT middleware & business data lake on cloud; bidder to provide cloud compute/storage (SOR F4/F5) as fixed quarterly charges; average CPU/RAM utilization not to exceed 60%, failing which additional capacity at no cost to OIL. To enable realistic sizing of the fixed-price cloud items F4/F5 for 60 months, kindly provide indicative data volumes and growth assumptions for each source system (SAP S/4HANA, CxO Dashboard, E&P Databank, eRTMAC, CBM, Connected Worker, BoLD, S&E Portal, drone surveillance video, SOC, AMIS). Kindly also confirm the treatment of cross-cloud data egress charges (e.g., S&E Portal hosted on AWS, BoLD on Oracle) - whether payable at actuals or to be factored into the quoted price.	Please refer to relevant amendments in this regard
1057	204	Cl. 6.3(d)	CCC Platform should be able to connect to operational technologies with bi-directional control via native protocols (OPC UA/DA, BACnet IP, MODBUS TCP, telemetry protocols). The cybersecurity requirements (Cl. 8) mandate that data transfer between IT and OT networks shall occur only through approved secure gateways. Kindly confirm that the CCC is intended for monitoring, visualization and decision support only (read-only acquisition from OT systems) and that no control/write-back commands to OT systems are in scope. If bi-directional control is indeed intended, kindly define the systems, use cases and the safety approval mechanism applicable.	Control/write-back commands to OT systems is not in scope
1058	214- 215	Cl. 6.3 - Digital Twin enablement	CCC platform shall connect to Digital Twin models and provide an embedded Digital Twin viewer with tag-level linkage of 3D models, engineering data and documents. Kindly confirm that the Digital Twin models, 3D engineering models and tag-linked engineering documentation shall be provided by OIL, with the bidder's scope limited to integration and the embedded viewer within the CCC UI. If model creation is in the bidder's scope, kindly specify the assets, model types and level of detail required.	Solution requires secure integration with Digital Twin models/platforms and an embedded viewer within the CCC UI for search, retrieval, visualization and collaboration. Creation of detailed Digital Twin models is not part of SOW. The bidder shall provide the integration, embedded viewing capability and associated licences required for the offered solution.

1059	216	Cl. 7(d)	AMC cost per annum shall not be less than 5% of the Total Contract Value (TCV); any shortfall shall be withheld and released in equal annual instalments during the AMC period. Kindly define 'Total Contract Value' for the purpose of this clause - specifically whether it includes the AMC charges themselves, the optional items (K1-K3) and GST - to enable uniform quoting across bidders.	OIL will review and revert.
1060	215- 216, 225- 228	Cl. 7 & Cl. 12	Hypercare (4 months) shall include dedicated support from the core project implementation team and forms part of the AMC; minimum AMC manpower of 8 resources (2 at CO Delhi, 6 at FHQ Duliajan); separate absence penalties for Hypercare and AMC resources. Kindly confirm the minimum manpower to be deployed during the 4-month Hypercare period - whether the six-member implementation team and the eight AMC resources are both required to be deployed concurrently, or whether suitable overlap of roles is permissible.	OIL will review and revert.
1061	200- 204, 259- 260	SOW Cl. 6.1(c)/6.2(b); SOR items E3/F3/E5/F6	OT/IT system integration and historical data migration payable on actual number of systems integrated (BOQ quantity 15 each); the integration lists are stated to be indicative and not exhaustive. Kindly define the unit of measurement 'one system' for items E3/F3/E5/F6 (e.g., whether NBPL and NSPL SCADA count as two systems), confirm that payment shall be on actuals up to the BOQ quantity, and indicate the expected tag/KPI/interface volume per system so that all bidders may quote uniform unit rates.	OIL will review and revert.
1062	240	Part-C, 'Personnel to be Deployed by Successful Bidder', item 5	Proposed personnel for the project shall be on the bidder's payroll for at least one year prior to the original bid closing date, evidenced by joining letters and salary proofs. BEC Cl. 3.2.2/3.2.3 and Appendix-IV require the identified key personnel to be deployed from the supporting company / JV partner / consortium member whose experience is relied upon. Kindly harmonize these provisions and confirm that: (i) where qualification relies on a supporting company / consortium member, the one-year payroll condition applies to that entity; and (ii) considering the specialized skill sets involved, personnel on the payroll of the bidder or its group companies, or engaged against this project, shall be acceptable subject to meeting the prescribed qualification and experience.	OIL will review and revert.

1063	244- 248	Part-D, Cl. 4.1 (Definitions) & Table-A	P1 (Critical) incidents: response time 1 hour, target resolution 4 hours; incident scope includes control-room infrastructure (video walls, consoles, etc.) at all sites. For hardware failures (e.g., LED modules, controllers, UPS) particularly at remote sites, kindly confirm that 'resolution' means restoration of service, including through built-in redundancy or an approved workaround, with physical repair/replacement governed by an agreed spares and turnaround plan. Kindly also indicate the spare-holding expectation at each site.	OIL will review and revert.
1064	249	Part-D, Exit Management - 'Licences, Entitlements & Portability'	Licences required for normal operation shall be transferred/reissued to OIL at no additional cost; where licences are non-transferable, the Contractor shall obtain replacement or perpetual licences acceptable to OIL at its own cost. For SaaS subscriptions expressly contemplated in the SOR (item G1 - SaaS cloud visualization platform; item G2 - field mobile app subscription), perpetual equivalents do not exist in the market. Kindly confirm that for such SaaS components the exit obligation shall be limited to complete data export in open formats, documentation and transition support, with any post-contract subscriptions being procured afresh by OIL.	Please refer to relevant amendments in this regard
1065	257- 262	Table-B item 9; SOR items E1, F1, F4, F5, G1, G2	Software subscriptions and cloud resources are quoted as 20 quarterly charges payable after Go-Live; data-lake installation and commissioning fall at T0+6/T0+7 months. The subscriptions and cloud consumption necessarily commence during the implementation phase (from installation until Go-Live). Kindly clarify whether: (i) the 20 quarterly payments commence from activation of the respective subscription; or (ii) the implementation-period subscription/cloud cost is payable separately; or (iii) bidders are to build this cost into the quoted quarterly rates.	OIL will review and revert.
1066	324	Cl. 2.5.22	Metal panelling and metal ceiling shall sustain seismic vibrations as per design spectrum IS 1893 for Zone 4 or better. FHQ Duliajan and PHQ Guwahati fall in Seismic Zone V as per IS 1893 (Part 1). Kindly confirm that the design basis for these locations shall be Zone V, with Zone IV applicable for Delhi and Jodhpur.	OIL will review and revert.

1067	31	[BEC 3.2-A]:	confirm whether CCC/ICCC works executed for Government / Smart-City / PSU environments (city ICCCs, police C&C, airports, railways) qualify under Criterion A, or strictly Oil & Gas / Petrochemicals / Power / Utilities / Metals. Also define "Utilities"	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
1068	21 OF 42	[GCC 24.1]	: confirm the successful bidder may, with OIL's prior written approval, engage specialist agencies for defined work packages (civil/interiors, AV integration, application development, data-lake implementation, VAPT via CERT-In empanelled agency), bidder remaining solely responsible — noting Exhibit-I itself contemplates sub-contracting.	No change in GCC
1069	34-40	[SCC Part-C "Personnel" #5 vs BEC 3.2.2/3.2.3 + AppendixIV]:	The ≥1-year-on-bidder's-payroll requirement conflicts with the BEC requirement that key personnel come from the supporting company/JV/consortium member. Confirm the payroll condition sits with the entity whose experience is claimed, or relax it for consortium/supporting-company personnel.	OIL will review and revert.
1070	34	[BEC 3.2.2(IV)]	confirm the 20% local content and India incorporation requirements apply at consortium/leader level, and members' scope split per the MoU governs criterion mapping.	Clarified. It will be calculated collectively as per terms of the tender.
1071	257	[SOR Table-B #9]	E1/F1/F4/F5/G1/G2 are 20 quarters paid post-Go-Live, but licences and cloud must run from installation (T0+6/7). Confirm implementation-period subscription and cloud consumption are payable additionally, or quarters count from activation	OIL will review and revert.

1072	49	[BEC 6.14 vs SOR]	: formula components (A–F: "Core Platform", "Integrations", etc.) don't map to SOR sections A–K. Confirm L1 = grand total of Proforma-B incl. GST, and state whether optional items K1–K3 are included in evaluation.	To check please. Our replies may be: Amendment shall be issued to rectify page no. 49. Price bid format is uploaded along with the tender and evaluation shall be based on categories A to K.
1073	215	[SOW 7(d)]	"AMC per annum ≥5% of TCV" — define TCV (incl./excl. AMC itself, optional items, GST	OIL will review and revert.
1074	26 OF 42	[GCC 30 vs SCC SLA 4.3]	confirm delay LD applies once on Implementation Cost (0.5%/week, cap 7.5%), not cumulatively under both clauses.	No change in GCC
1075	244	[SLA Table-A]	confirm "resolution" means service restoration including via redundancy/workaround, with physical replacement per an agreed spares plan — otherwise 4-hr hardware resolution at Duliajan/Jodhpur implies on site OEM spares everywhere	OIL will review and revert.
1076	248	[SCC Exit Management]	perpetual replacements don't exist for SaaS (G1 visualization, G2 mobile app). Confirm SaaS obligations end at exit with full data export in open formats	OIL will review and revert.

1077	105	[SOW 4.25]	confirm IP assignment to OIL covers custom-developed artefacts; COTS/OEM software remains under OEM licence terms with OIL as licensee (SOW itself mandates a COTS CCC platform)	OIL will review and revert.
1078	215, 225	[SOW 7 & 12]:	confirm whether during the 4-month Hypercare both the 6-member implementation team and the 8 AMC resources must be deployed simultaneously (14 people), or overlap is permitted	OIL will review and revert.
1079	113	[A2/B2/D2]:	(a) BIS registration is cited — large-format LED display cabinets are not currently under the CRS mandatory list; confirm acceptable alternative certification; (b) confirm simultaneous HDR10+ + active-3D + 7680Hz per OEM datasheet trade-offs; (c) confirm ±0.2m tolerance accommodates standard cabinet modularity	OIL will review and revert.
1080	125	A7	confirm OIL provides host application licences (Petrel, ArcGIS) and existing 3D/GIS datasets; bidder provides the visualization/VR layer only.	Yes Confirmed for Petrel
1081	133	A11	confirm LLM hosting (on-prem vs cloud), knowledge corpus provided by OIL, languages, acceptance criteria; specify minimum sizing for "AI-enabled GPU servers" (A11.20)	OIL will review and revert.

1082	184	610%	25 named users (5-yr subscription) vs visualization tool "500 simultaneous connections" — clarify licensed user count for costing.	OIL will review and revert
1083	204	6.3D	confirm the CCC is monitoring/decision-support only (read-only from OT), consistent with "IT–OT transfer only via approved secure gateways"; if control-writes are intended, define scope and safety approvals.	Control write back is not required
1084	324	[Annexure-A3 2.5.22]	IS 1893 Zone IV is specified — Duliajan and Guwahati are in Zone V. Confirm Zone V design basis for FHQ/PHQ.	OIL will review and revert.
1085	201	620%	provide indicative data volumes/velocity per source system (SAP, eRTMAC, CBM, drone video, SOC) and growth assumptions for fixed-price items F4/F5; confirm treatment of cross-cloud egress (S&E on AWS, BoLD on Oracle)	OIL will review and revert.
1086	204	630%	confirm twin models/engineering data are provided by OIL; bidder provides embedded viewer and integration only.	Yes

1087		[E3/F3]:	define "one system" for payment on actuals (e.g., NBPL and NSPL =2), and indicative tag/KPI cap per system.	OIL will review and revert.
1088	106	[SOW 5.1(b), A2.20]	room layouts, LED curve drawing and AS-IS documents referenced are not legible in the PDF — request issue as addendum (CAD/PDF).	OIL will review and revert.
1089	105	[SOW 5(ii)]	confirm whether the pre-bid site visit is mandatory and how evidenced; request facilitated visit windows at all four sites	Bidder is free to visit
1090	281	[BEC 4.3(b)]	Proforma-WC is referenced but not enclosed; Proforma-M is marked "NOT APPLICABLE". Clarify whether line-of-credit supplementation is permitted and provide the format	It is permitted and Proforma WC shall be provided along with the corrigendum.
1091	31	[BEC 3.1]	UPS/PAC/Fire-alarm, confirm MAF from the OEM's authorized Indian subsidiary/national distributor is acceptable	No

1092	119	Section A5/	Need clarity on Power Supply Unit to be considered for each server so that overall IT Load and sizing can be calculated	Bidder to consider appropriate Power Supply Unit
1093	139	Section A15.7	Please specify the following . dimenions of rack required . total usable space in rack . per rack IT load to be considered . what load bearing density in racks is required . type of accessories required	To be considered as per solution design & tender requirement
1094	139	Section A15.7	Kindly clarify the following: . Metering in IPDU's is required at PDU or socket level . Is switching required . Slot combination of C13/C19 required in PDU . Temperature and Humidity Sensors need to be considered . Are locking power cables considered at the time of accidental dislodging	To be considered as per solution design & tender requirement
1095	164	Section 5.3.2	Clarificiation required on below points . Type of UPS required : Rack Mountable or Floor Standing . Power Factor to be considered . Total IT load to be connected with UPS	Room temperature and humidity sensors shall be part of PAC
1096	107	Part-4, Section-II, Section 5.1.1, Item A1 (WTC Delhi CCC)	Kindly provide room-wise HVAC heat load calculations including Video Wall, AV equipment, Servers, UPS, Lighting and Occupancy loads.	Yes

1097	108	Section 5.1.2, PAC Requirements	Tender specifies 30 TR PAC/VRF cooling. Please clarify whether 30 TR refers to total installed capacity or net cooling demand.	30 TR refers to minimum installed cooling capacity with N+1 redundancy
1098	108	Section 5.1.2	Please confirm if PAC sizing shall consider future load expansion and specify the percentage margin to be considered.	PAC sizing shall be as per tender specifications
1099	108	Section 5.1.2	Kindly provide the indoor design temperature and humidity set points to be maintained by the PAC system. Tender specifies ±1°C temperature control and ±5% RH humidity control only.	OIL shall review and revert
1100	108	Section 5.1.2	Please provide the outdoor design ambient conditions for Delhi, Duliajan, Jodhpur and Guwahati to be considered for equipment selection.	Bidder to assess during implementation phase
1101	108	Section 5.1.2 (Server & UPS Rooms)	Kindly provide separate heat loads for Server Rooms and UPS Rooms and confirm whether dedicated PAC units are required.	Please be guided by information in the tender

1102	108	Section 5.1.2	Please clarify whether DX Precision AC, Chilled Water PAC.	Chilled Water PAC shall not be accepted
1103	108	Section 5.1.2	Tender specifies N+1 redundancy. Please clarify whether redundancy shall be calculated based on room load or installed capacity.	Installed Capacity
1104	108	Section 5.1.2	Kindly confirm acceptable PAC configurations such as 2×15 TR, 3×10 TR or equivalent.	N+1 as per design requirement
1105	108	Section 5.1.2	Please confirm whether automatic Lead-Lag sequencing controller is mandatory and within PAC OEM scope.	Please be guided by information in the tender
1106	108	Section 5.1.2	Is automatic standby changeover required in the event of PAC failure.	Please be guided by information in the tender

1107	108	Section 5.1.2	Kindly specify acceptable switchover time between duty and standby units.	Please be guided by information in the tender
1108	108	Section 5.1.2	Please provide raised-floor height and under-floor plenum space available for air distribution.	OIL shall revert
1109	108	Section 5.1.2	Kindly confirm whether Downflow PAC or Upflow PAC configuration is preferred.	Should meet tender requirement
1110	108	Section 5.1.2	Is Computational Fluid Dynamics (CFD) analysis required during detailed engineering?	Bidder should consider suitably, if required
1111	108	Section 5.1.2	Please provide designated locations and routing constraints for outdoor condenser units.	Bidder to carry out site visits to gather these information

1112	108	Section 5.1.2 (Building Automation)	Kindly confirm required integration protocol: BACnet IP, BACnet MSTP, Modbus TCP, Modbus RTU, or SNMP.	Pl refer to amended OT architecture to be published
1113	108	Section 5.1.2 (Automation & Monitoring)	Please provide the complete list of PAC monitoring parameters to be integrated with BMS/CCC dashboards.	To be guided by tender requirement
1114	108	Section 5.1.2	Kindly confirm whether room temperature and humidity sensors are part of PAC scope or BMS scope.	To be guided by tender requirement
1115	108	Section 5.1.2	Is PAC energy consumption monitoring required on the CCC dashboard?	No
1116	108	Section 5.1.2	Kindly specify minimum filtration requirements (G4)	To be guided by tender requirement

1117	108	Section 5.1.2	Please confirm whether humidification and dehumidification functions are mandatory within PAC units.	To be guided by tender requirement
1118	108	Section 5.1.2	If humidification is required, kindly specify preferred technology	To be guided by tender requirement
1119	108	Section 5.1.2	Please confirm acceptable refrigerants and whether low-GWP refrigerants are preferred.	To be guided by information in tender
1120	215	Section 7 (AMC)	Kindly confirm whether compressors, EC fans, humidifier cylinders, controller cards, sensors and refrigerant gas refilling are included under the comprehensive 5-year AMC scope.	Yes
1121	215	Section 7 (AMC)	Please specify PAC uptime commitment and SLA requirements during AMC.	Uptime to support SLA defined at Pg 244

1122	223	Section 11 (Installation & Commissioning)	Kindly confirm SAT criteria for PAC systems including temperature stability, humidity stability, redundancy and failover testing.	To be as per standard practices
1123	323	Annexure A3 (Design Criteria)	Please confirm whether Factory Acceptance Test (FAT) is mandatory for PAC systems before shipment.	Yes
1124	105	Section 5 (Control Room Infrastructure)	Kindly provide room-wise HVAC layouts and reflected ceiling drawings for engineering and coordination purposes.	Bidder to carry out site visits to gather these information
1125	105	Section 5 (Control Room Infrastructure)	In absence of detailed room heat loads, please confirm that bidders may size PAC systems based on OEM engineering calculations, subject to OIL approval during detailed engineering.	Bidder to carry out site visits to gather these information
1126	108	Section 5.1.2 a)	Kindly confirm the make and model for UPS & PAC	Bidder is required to specify offered Make & Model

1127	110	Section 5.1.2 U)	Kindly confirm whether N+1 Redunadency has to be provided within the frame with modular Architechture UPS. With Hot swappable power modules	To be considered as tender requirement
1128	110	- Section 5.1.2 U)	Kindly specify the input & output panel configuration	To be considered as per solution design & tender requirement
1129	110	Section 5.1.2 w)	Kindly specify the battery configuration for longer life and safety we propose lithium Ion Battery with NMC + LMO Chemistry	To be considered as tender requirement
1130	141	Section 5.2.2 a)	Kindly confirm the make and model for UPS & PAC	Bidder is required to specify offered Make & Model
1131	110	Section 5.2.2 U)	Kindly confirm whether N+1 Redunadency has to be provided within the frame with modular Architechture UPS. With Hot swappable power modules	To be considered as tender requirement

1132	Page 52 of 343	The tender provides a list of 17 OIL-empanelled TPIAs along with their contact details/email IDs for verification and certification of documents required under BEC.	We have initiated communication with all the TPIAs listed in the tender for obtaining quotation and completing the required document verification/certification. However, emails sent to several of the email IDs provided in the tender are bouncing/undeliverable. Since TPIA certification is a mandatory requirement for submission of the Technical Bid and sufficient lead time is required for engagement of the TPIA, verification of original documents and issuance of the prescribed certificate/undertaking, we request OIL to kindly provide the latest/ updated and valid email IDs/contact details (contact person and mobile number, wherever available) of all the empanelled TPIAs at the earliest.	Clarified. E-mail IDs of TPI Agency as mentioned in the tender are valid. Bidders need to contact only OIL empanelled TPI agency.
1133	Page 103 of 343	4.9. The Platform shall integrate data and functionalities from OIL's existing digital platforms as well as future initiatives, ensuring a unified and scalable approach to operational monitoring, analytics, and decision support.	We request the authority to kindly confirm that integrations beyond the specifically identified 15 OT systems and 15 IT systems under SOR items E3 and F3, respectively, including future systems/data sources, shall be treated as additional scope and executed only against mutually agreed rates/change order. Rational:- The present wording creates an open-ended integration obligation, whereas the SOR provides a defined payable quantity. Future integrations may entail new APIs, licences, connectivity, cybersecurity review, tag mapping, data modelling and development effort.	OIL shall review and revert
1134	Page 184 of 343	d) Bidder shall integrate all identified OT & IoT systems into the Data Lake using secure connectors, protocols (e.g., OPC-UA, Secured APIs).	We request the authority to kindly provide, for each OT/IoT system, the final integration inventory: site, system version, OEM, protocol/interface availability, number of tags, sampling/event rate, historian availability, retention, network path, data owner, and access prerequisites. Kindly confirm that only mutually approved parameters/tags within the stated initial 50,000-tag capacity are in current scope. Rational:- The indicative list does not enable correct sizing of connectors, historian/data-lake capacity, network bandwidth, cybersecurity gateways, commissioning plan or integration effort.	The bidder shall provide secure integration of the identified OT/IoT systems within the specified initial capacity of 50,000 tags, scalable to 100,000 tags. Source-wise OEM, protocol, tag, frequency, network and access details shall be validated after LOA during Blueprint and detailed design.
1135	Page 186 of 343	y) OT Data Lake shall retain all historical operational data for a minimum period of 10 years, with secure archival, retrieval, and compliance-aligned storage mechanisms.	We request the authority, kindly specify the expected tag-wise sampling frequency, compression policy, event/alarm volumes, total historical-data volume, archival storage architecture, retrieval performance and backup capacity for the 10-year retention requirement. Kindly confirm whether the 10-year retention storage capacity is to be provisioned in the present BOQ or will be provided by OIL. Rational:- Retention of 50,000 high-frequency tags for 10 years can require substantial storage, backup, SAN capacity	The OT Data Lake shall support 50,000 initial tags, scalable to 100,000 tags, with minimum ten-year online retention, secure archival and retrieval. Source-wise sampling, compression, alarm/event volume and historical-data details shall be finalized during detailed design; the bidder shall size the solution to meet the tender requirement.

			and licences. These inputs are essential for an accurate commercial proposal.	
1136	Page 187 of 343	The bidder shall utilize OIL's existing HPE Primera A670 500 TB SAN Storage for storage requirements and integrate the VCF solution with the existing SAN infrastructure. The bidder shall also utilize the following existing OIL infrastructure for deployment of the solution: ToR L3 Switch – Dell EMC S5296F SAN Switch – Cisco MDS-9148V-48PETK9 Management Switch – Dell EMC S3048	Kindly share the detailed as-built configuration, firmware/software versions, available SAN capacity and performance, FC zoning, ToR/SAN-switch configuration, VXLAN/MC-LAG design, available ports/transceivers, VCF version, compatibility matrix and approved change window for the existing OIL infrastructure. Kindly confirm that delays/failures attributable to the existing infrastructure, its OEM/support agency, network/security approvals or unavailable capacity shall not be attributable to the bidder. Rational:- The bidder is assigned end-to-end compatibility and integration responsibility for existing infrastructure without sufficient technical baseline or commercial protection for third-party/OIL dependencies.	OIL will review and revert.
1137	Page 187 of 343	ii. Backup of the solution shall be carried out in OIL's infrastructure managed with Commvault backup software. Bidder must facilitate all necessary technical assistance to OIL team to implement backup policy, restoration policy, of the Data Lake along with all associated activities.	We request authority to kindly provide the ownership, sizing, location, retention, RPO/RTO, media, encryption, cloud subscription, egress and restoration-test frequency for offline backup. Kindly clarify whether cloud/physical backup storage and related recurring charges are to be supplied by OIL or included by the bidder. As the requirement creates an unspecified recurring infrastructure and operational cost, with no measurable recovery objectives or ownership allocation.	OIL will review and revert
1138	Page 201 of 343	c. Existing application-side API enablement and related configurations will be handled by OIL India. The Bidder shall provide all required specifications, documentation, and support to facilitate this process.	Kindly provide API/interface specifications, endpoint availability, authentication method, rate limits, data schemas, historical-data availability, data volumes, source-system owners and access timelines for each listed IT system. Kindly confirm that OIL will arrange all source-system OEM/application-owner support and API enablement at no cost to the bidder. As IT integration delivery depends on timely access and interface readiness from multiple OIL-owned and third-party applications hosted across Azure, AWS, Oracle and on-premises environments.	OIL will review and revert.

1139	Page 202 of 343	b. Compute resources shall be provisioned such that CPU and RAM utilization do not exceed an average of 60%. Any sustained utilization beyond this threshold shall be deemed a resource shortfall, and the bidder shall provision additional capacity at no extra cost to OIL.	Kindly clarify the measurement period for "average" and "sustained" utilization. Also confirm that no-cost capacity augmentation shall apply only to shortfall against the agreed baseline sizing and not to any subsequent increase in workload/scope. Requested Change:- b. Compute resources shall be provisioned such that CPU and RAM utilization do not exceed an average of 60%. Any sustained utilization beyond this threshold shall be deemed a resource shortfall, and the bidder shall provision additional capacity at no extra cost to OIL. Any sustained utilization beyond this threshold against the agreed baseline sizing shall be deemed a resource shortfall, and the bidder shall provision additional capacity at no extra cost to OIL. Additional capacity required due to increase in workload/scope beyond the agreed baseline shall be treated as additional scope and shall be chargeable through the applicable SOR/change order.	The bidder shall size and provision compute resources so that the specified CPU and RAM utilization requirements are met for the approved solution scope. Measurement, monitoring, baseline sizing and scaling arrangements shall be finalized during detailed design in accordance with the tender.
1140	Page 205 of 343	w. Bidder shall provide Cloud infrastructure for the CCC Application including mobile app deployment, ensuring full compliance with OIL's Cloud Governance Framework, including standardized naming conventions, resource tagging, and policy enforcement controls.	We request authority to provide the cloud sizing baseline, including compute, storage, database, backup, DR, log retention, bandwidth, egress, environments, user loads, expected video/multimedia usage and required availability. Kindly confirm that Azure Landing Zone connectivity, approvals, IP addressing, routing, firewall-rule changes and OIL identity integration shall be provided by OIL within agreed timelines. As cloud charges and secure connectivity costs cannot be estimated reliably without workload and connectivity baselines. The clause also relies on OIL-controlled landing-zone access.	OIL will review and revert.
1141	Page 103 of 343	4.10. Comprehensive modelling of wells, networks, and surface facilities shall be undertaken to enable real-time visualization & performance analysis and overlay of alerts and insights.	Requesting authority to define the current-scope deliverables for GIS, 2D/3D modelling and Digital Twin: assets/sites covered, source CAD/BIM/GIS/model availability, LOD/LOI, data-cleansing responsibility, required licences, number of models and acceptance criteria. Kindly confirm whether creation or remediation of 3D/Digital Twin models is excluded unless specifically ordered under SOR item K2/K3.	OIL will review and revert.

1142	Page 104 of 343	4.17. Bidder shall provision the platform to be future-ready with conversational AI capabilities, enabling users to query system data in natural language and receive contextually accurate, actionable responses.	Kindly share clarification that whether Conversational AI, AI/ML models, predictive/prescriptive analytics, model training/retraining, and related third-party licences are part of Phase-1 scope or will be taken up under Phase-2/additional SOR item K3, as Conversational AI is also mentioned as a future scope in the RFP.	AI/ML model development, training/retraining and Conversational AI implementation are not part of Phase-1 unless expressly included in the approved scope. The platform shall remain future-ready and support subsequent integration in accordance with the tender roadmap.
1143	Page 185 of 343	k) The bidder shall develop and configure web-based real-time dashboards as per OIL's requirement, with a minimum of 30 dashboards to be delivered.	Kindly confirm that the minimum 30 dashboards shall be finalized during the Phase-1 blueprint/design stage, and any additional dashboards required beyond the approved scope shall be taken up through SOR K1.	The bidder shall deliver the minimum dashboards specified in the tender. The detailed KPI catalogue, dashboards, reports, alerts and workflows shall be finalized through stakeholder workshops and the approved Blueprint; any additional requirement shall be governed by the applicable SOR and change-control provisions.
1144	Page 208 of 343	e) Delivers real-time notifications via multiple channels, including email, phone, and messaging platforms (e.g., WhatsApp).	Kindly clarify wheather the notification channels required in Phase-1 and confirm whether the required licences/accounts, API credentials and recurring charges for WhatsApp, SMS/telephony and other messaging services will be provided/ borne by OIL.	WhatsApp business account will be provisioned by OIL. Recurring cost to be factored by bidder.
1145	Page 216 of 343	d. AMC cost per annum shall not be less than 5% of the Total Contract Value (TCV). In the event the quoted AMC charges per annum is less than 5% of the TCV, OIL shall withhold from the bidders' s payable amounts an amount equal to the shortfall (i.e., 5% of TCV minus the AMC cost per annum), and such withheld amount shall be released to the bidder in equal annual instalments during the AMC period, subject to satisfactory performance of AMC services for the respective year after deduction of penalty, if any.	Kindly clarify the TCV considered for calculating the 5% annual AMC, specifically whether it includes optional/on-actual items (K1-K3), cloud subscriptions, VAPT and GST. Also, please clarify the withholding and release mechanism for any AMC shortfall amount during the AMC period.	OIL will review and revert.

1146	Page 216 of 343	e. The bidder will also be responsible for data integrity checks, cleansing, and synchronization across all connected systems. This includes any newly added data sources or changes in existing ones.	Kindly confirm whether AMC shall cover only the existing/approved scope. Any new data sources, changes in integrations, additional manpower or support beyond the agreed support requirements may be treated as additional scope and mutually agreed between OIL and the bidder.	Comprehensive AMC shall apply to the approved solution and integrations in accordance with the tender. Any new data source, material change in integration or additional requirement beyond the approved scope shall be assessed under the applicable change-management provisions.
1147	Page 217 of 343	All such repair and replacement activities shall be included within the AMC charges, with no additional cost to OIL.	Kindly confirm whether repair and replacement under AMC is applicable only for failures during normal usage. In case of damage due to misuse, accident, theft, external factors, or third-party intervention, the same may be treated separately.	Repair and replacement obligations during AMC shall apply as specified in the tender. The bidder shall account for comprehensive support of supplied components and clearly state any OEM-standard exclusions, if applicable, in its bid.
1148	Page 220 of 343	e. Conduct Vulnerability Assessment and Penetration Testing (VAPT) on assets (including hardware, software) once prior to Go-live and at least once in a year during the contractual period to identify security weaknesses and validate remediation effectiveness through a CERT-In empanelled agency and provide all necessary audit reports, certificates and clarifications required by OIL or its nominated auditor. Bidder shall be responsible for closure of the Vulnerabilities found in Audit, Vulnerability Assessment, Penetration Testing Activity.	Kindly clarify the VAPT scope and closure timelines. Also the vulnerabilities identified in OIL-owned existing systems/infrastructure or third-party products shall be addressed by the respective owner/OEM and will not be the bidder's responsibility.	VAPT shall be conducted through a CERT-In empanelled agency before Go-Live and annually during the contractual period as specified. The bidder shall coordinate remediation and closure for the supplied solution; ownership and closure of observations relating solely to OIL-owned or third-party systems shall be determined jointly based on the finding.
1149	Page 202 of 343	m. The bidder shall migrate a minimum of two (2) years of historical data (wherever available) from all integrated OT and IT systems into the respective IT Data Lake. This includes time-series data, enterprise application data, and any relevant historical datasets required for baseline analytics, trend analysis and model training. The bidder is responsible for extraction, transformation, data quality checks, metadata mapping,	Kindly provide the approximate volume, format and availability of the 2-year historical data for each system. Also confirm that historical data not available/accesssible from the source systems will not be considered as bidder's responsibility.	The bidder shall migrate a minimum of two years of historical data wherever available from the integrated systems. Source-wise volume, format and accessibility shall be validated during design phase

		contextualization, and ingestion into the target data lakes		
1150	Page 202 of 343	Data buffering shall be available to cater to conditions of interrupted connectivity between CCC and the IT data lake; the system shall maintain data synchronization using a fallback refresh frequency of 1 hour until normal connectivity and real-time ingestion resume	Kindly clarify the required buffering duration and expected data volume during connectivity outages for sizing the solution.	OIL will review and revert.
1151	Page 199 of 343	rrr. The system shall be built on a resilient architecture incorporating high availability, failover mechanisms, redundancy, backup, and support disaster recovery provisions to ensure uninterrupted upstream operations.	We request authority to specify the required RPO, RTO, DR location and DR architecture for the IT Data Lake and CCC application.	DR is not in the scope
1152	Page 259 of 343	SITC of Operator desk,collaboration table and electrical (Split AC, Lighting, UPS)	Kindly confirm the final operator seating/workstation count and collaboration seating requirement at each CCC location before detailed design and procurement.	The bidder shall meet the quantities and functional requirements stated in the applicable BOQ/SOR. Final seating count, room layout, electrical requirements and furniture design shall be confirmed through site survey and the approved detailed design.
1153	Page 204 of 343	The CCC platform shall be fully integrated commercial off the self (COTS) software platform that provides seamless integration and control mechanism with various Information Technology, Operational Technologies and IOT sensors/ applications/ platforms.	Requested Changes:- The CCC platform shall be fully integrated commercial off the self (COTS) software platform that provides seamless integration and control mechanism with various Information Technology, Operational Technologies and IOT sensors/ applications/ platforms. The bidder/OEM responsible for the CCC application platform shall have CMMI Level 5 certification and valid ISO 9001:2015, ISO/IEC 27017:2015 certifications. Justification:- Considering the CCC platform's critical role in integrating multiple IT, OT and IoT systems, CMMI Level 5 and ISO 9001:2015 ensure mature and standardized	No change

			software development and quality processes, while ISO/IEC 27017:2015 ensures appropriate cloud security controls for secure and reliable deployment of the CCC platform.	
1154	Page 173 of 343	SITC of Video Conferencing System: USB VC system for Medium to Large room, Integrated mics additional mic at workstation and dual speakers	Kindly share the room dimensions/layout for RF, Jodhpur and PHQ, Guwahati to enable appropriate sizing and selection of the Video Conferencing System.	OIL will review and revert.
1155	Page 202 of 343	o. The bidder shall be responsible for rebuilding of Data Lake from backed up data set in case of any eventuality. Bidder shall be responsible for carrying out regular restoration drill of data and application in coordination with OIL's IT team. The bidder shall also be responsible for preparing backup set for offline backup in cloud or in any other physical location.	Kindly specify the frequency of restoration drills and expected RPO/RTO for restoration of the Data Lake and applications.	DR is not in the scope
1156	Page 221 9.2. Phase-1 (Current Scope) implementation timeline	The total project duration is 10 months for implementation, followed by 5 years of Annual Maintenance Contract (AMC) support.	Kindly confirm that delays due to site readiness, approvals, API/source-system access, shutdown permissions or other OIL/third-party dependencies shall result in corresponding extension of the project timeline without LD.	OIL will review and revert.
1157	Page 215 of 343	Post successful installation and Go-Live of the CCC system, the Bidder shall provide an enhanced Hypercare support period of four (4) months to ensure system stabilization, operational continuity, and smooth transition to steady-state operations.	Kindly confirm that Hypercare shall commence from Go-Live and shall not be extended due to enhancement/change requests or issues attributable to OIL/third-party systems.	Hypercare shall commence after successful Go-Live and continue for the period specified in the tender. Closure shall be based on completion of the defined stabilization, support and acceptance obligations.

1158	Page 105 of 343	4.24. The bidder shall maintain a valid back-to-back support agreement with the respective OEMs, ensuring end-to-end coverage, updates, and issue resolution for all supplied components.	Kindly clarify whether back-to-back OEM support is mandatory for all hardware/software components or only for major/core components of the proposed solution.	OIL will review and revert.
1159	Page 251 of 343 7. Pre Dispatch Inspection (PDI) at OEM / Factory Site	Any observations/ non conformities identified during PDI shall be rectified by the Bidder at no additional cost and without impact on the project delivery schedule.	Kindly confirm that any delay in PDI scheduling/clearance attributable to OIL shall result in corresponding extension of the delivery timeline.	OIL will review and revert.
1160	Page 173 of 343 C5.15	Integration of Live Camera Feed from the Field to Wide Curved Screen for Immersive Experience	Kindly specify the maximum number of simultaneous live camera feeds, resolution, codec and expected bandwidth to be considered for solution sizing.	The bidder shall support integration and display of live camera feeds as specified. The number of simultaneous feeds, resolution, codec, bandwidth and routing requirements shall be finalized through site assessment and detailed design.
1161	Page 173 of 343 C5.16	Application shall support RFID/NFC devices or sensors with plug-and-play integration.	Kindly provide the number, make/model and interface/protocol of RFID/NFC devices/sensors proposed for integration.	OIL will review and revert
1162	NA	Video Conferencing – Jodhpur & Guwahati C6/D6 specify Video Conferencing System; detailed room sizing information is required for OEM solution selection.	Kindly share the room dimensions/layout for RF, Jodhpur and PHQ, Guwahati to enable appropriate sizing and selection of the Video Conferencing System.	OIL will review and revert.

1163	NA	UPS requirement: 48 kVA Modular UPS (N+1) with 30 min backup at Delhi; 40 kVA Modular UPS (N+1) with 30 min backup at Duliajan; and 10 kVA True Online Double-Conversion UPS with 60 min backup at Jodhpur and Guwahati. Detailed technical parameters/specifications of the UPS systems are not provided.	Please confirm whether the bidder may propose UPS systems as per the respective OEM's standard specifications, meeting the specified UPS capacity, redundancy and backup requirements of the RFP.	The bidder may propose an OEM-standard UPS design provided it meets or exceeds the specified capacity, N+1 redundancy, backup duration, online double-conversion and all other tender requirements. Detailed technical compliance shall be demonstrated in the bid.
1164	Part-4, Section-I (GCC), Clause 16.0 - Limitation of Liability, Page 74	"16.0 LIMITATION OF LIABILITY: a) Notwithstanding any other provisions herein to the contrary, except only in cases of Wilful misconduct and/or criminal acts and/or criminal negligence, neither the CONTRACTOR nor the COMPANY (OIL) shall be liable to the other, whether in Contract, tort, or otherwise, for any consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided however that this exclusion shall not apply to any obligation of the CONTRACTOR to pay Liquidated Damages to the COMPANY and/or COMPANY's right to forfeit the Performance Bank Guarantee(s) in terms of the contract. b) Notwithstanding any other provisions incorporated elsewhere in the contract, the aggregate liability of the CONTRACTOR in respect of this contract, whether under Contract, in tort or otherwise, shall not exceed 100% of the Contract Price (if not specified otherwise in SCC), provided however that this limitation shall not apply to the cost of repairing or replacing defective equipment by the CONTRACTOR, or to any obligation of the CONTRACTOR to indemnify the COMPANY with respect to Intellectual Property Rights. c) COMPANY shall indemnify and keep indemnified CONTRACTOR harmless from and against any and all claims, costs, losses and liabilities in excess of the	It is requested that the Contractor's aggregate non-indemnity liability, including LD, SLA/service penalties, service credits, set-off, risk purchase, replacement/corrective costs, performance-security realization and all other monetary remedies, be capped at 10% of the Contract Value, with no duplicate recovery for the same event. Indemnities may be governed by the separate 100% aggregate cap requested under Clause 20.1. Amendment Clause: "16.0 LIMITATION OF LIABILITY: a) Notwithstanding any other provisions herein to the contrary, except only in cases of Wilful misconduct and/or criminal acts and/or criminal negligence, neither the CONTRACTOR nor the COMPANY (OIL) shall be liable to the other, whether in Contract, tort, or otherwise, for any consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided however that this exclusion shall not apply to any obligation of the CONTRACTOR to pay Liquidated Damages to the COMPANY and/or COMPANY's right to forfeit the Performance Bank Guarantee(s) in terms of the contract. b) Notwithstanding any other provisions incorporated elsewhere in the contract, the aggregate liability of the CONTRACTOR in respect of this contract, whether under Contract, in tort or otherwise, shall not exceed 100% of the Contract Priceshall not exceed, in aggregate, 10% of the Contract Value (if not specified otherwise in SCC), provided however that this limitation shall not apply to the cost of repairing or replacing defective equipment by the CONTRACTOR, or to any obligation of the CONTRACTOR to indemnify the COMPANY with respect to Intellectual Property Rights. This aggregate cap shall include all liquidated damages, SLA or service penalties, service credits, set-off, risk-purchase differential, corrective or replacement costs, Performance Security realization and all other non-indemnity monetary remedies, without duplicate recovery for the same event. All	No Change

		aggregate liability amount in terms of clause (b) above."	indemnities under the Contract shall instead be subject to the separate aggregate cap stated in Clause 20.1. c) COMPANY shall indemnify and keep indemnified CONTRACTOR harmless from and against any and all claims, costs, losses and liabilities in excess of the aggregate liability amount in terms of clause (b) above."	
1165	Part-4, Section-I (GCC), Clause 20.1 - Indemnity Agreement, Page 75	"20.1 Except as provided hereof CONTRACTOR agrees to protect, defend, indemnify and hold COMPANY harmless from and against all claims, suits, demands and causes of action, liabilities, expenses, cost, liens and judgments of every kind and character, without limit, which may arise in favour of CONTRACTOR's employees, agents, CONTRACTORs and sub-CONTRACTORs or their employees or in favour of any third party(is) on account of bodily injury or death, or damage to personnel/property as a result of the operations contemplated hereby, regardless of whether or not said claims, demands or causes of action arise out of the negligence or otherwise, in whole or in part or other faults."	It is respectfully requested that indemnity apply only to direct losses and third-party claims to the extent caused by the Contractor's breach, negligence or wilful misconduct, after notice and control of defence. All indemnities under the Contract, including IPR, confidentiality and statutory indemnities, should be capped in aggregate at 100% of the Contract Value. Amendment Clause: "20.1 Except as provided hereof CONTRACTOR agrees to protect, defend, indemnify and hold COMPANY harmless from and against all claims, suits, demands and causes of action, liabilities, expenses, cost, liens and judgments of every kind and character, without limit,direct losses and third-party claims, liabilities, reasonable costs and judgments, which may arise in favour of CONTRACTOR's employees, agents, CONTRACTORs and sub-CONTRACTORs or their employees or in favour of any third party(is) on account of bodily injury or death, or damage to personnel/property as a result of the operations contemplated hereby, regardless of whether or not said claims, demands or causes of action arise out of the negligence or otherwise, in whole or in part or other faults.to the extent directly caused by the CONTRACTOR's breach, negligence or wilful misconduct, subject to prompt written notice and the CONTRACTOR's right to control the defence and settlement. The aggregate liability of the CONTRACTOR under all indemnities in the Contract, including IPR, confidentiality and statutory indemnities, shall not exceed 100% of the Contract Value. No indemnity shall apply to the extent a claim arises from COMPANY-provided materials, instructions, modification, misuse or combination not supplied or approved by the CONTRACTOR."	No change in GCC

1166	Part-4, Section-I (GCC), Clause 24.1 - Subcontracting/Assignment, Page 76 (read with BEC Clause 3.2.3 on JV/Consortium participation and SOW Clause 4.24 on OEM support)	"24.1 CONTRACTOR shall not subcontract, transfer or assign the contract, or any part under this contract, to any third party(ies). Except for the main services under this contract, CONTRACTOR may sub-contract the petty support services subject to COMPANY's prior written approval. However, CONTRACTOR shall be fully responsible for complete execution and performance of the services under the Contract."	The BEC permits JV/consortium bids and the SOW mandates back-to-back OEM support. Kindly confirm that disclosed JV/consortium members, OEMs, authorised partners, cloud/hosting providers, CERT-In agencies and specialist subcontractors may perform their allocated scope, subject to applicable authorisations and a responsibility matrix, and are not treated as prohibited subcontracting. Amendment Clause: "24.1 CONTRACTOR shall not subcontract, transfer or assign the contract, or any part under this contract, to any third party(ies). Except for the main services under this contract, CONTRACTOR may sub-contract the petty support services subject to COMPANY's prior written approval.shall not assign the Contract as a whole without COMPANY's prior written approval. The CONTRACTOR may engage disclosed JV/consortium members, OEMs, authorised partners, cloud/hosting providers, CERT-In empanelled agencies and specialist subcontractors for their allocated scope upon prior written intimation to COMPANY; such engagement shall not constitute prohibited subcontracting. However, CONTRACTOR shall be fully responsible for complete execution and performance of the services under the Contract."	No change in GCC
1167	Part-4, Section-III (SCC), Part C - Confidentiality, Pages 240-241	"1. Bidder agrees to be bound by professional secrecy and undertake to keep confidential any information obtained during the execution of the project and to take all reasonable steps to ensure the bidder's personnel likewise keep such information confidential. 2. This obligation shall keep in force even after the expiry of the contract period and until such information will be disclosed by OIL."	It is requested that confidentiality be mutual, subject to standard exclusions and permitted disclosure to personnel, consortium members, OEMs, professional advisers and regulators on a need-to-know basis, and survive for five years after expiry/termination, except for trade secrets and personal data as required by law. Amendment Clause: "1. Bidder agreesEach party agrees to be bound by professional secrecy and undertake to keep confidential any information obtained during the execution of the project and to take all reasonable steps to ensure the bidder's personnelits personnel and permitted recipients likewise keep such information confidential. 2. This obligation shall keep in force even after the expiry of the contract period and until such information will be disclosed by OIL.for five (5) years after expiry or termination of the Contract, except for trade secrets and personal data for so long as protected by applicable law. Confidential Information excludes information lawfully known without restriction, independently developed, lawfully received from a third party, publicly available without breach, or required to be disclosed by law. Disclosure may be made on a need-to-know basis to personnel,	No Change

			consortium members, OEMs, approved subcontractors, professional advisers and regulators subject to equivalent confidentiality obligations."	
1168	Part-4, Section-I (GCC), Clause 31.0 - Force Majeure, Page 82	"Should either party decide not to terminate the Contract even under such condition, no payment would apply after expiry of fifteen (15) days force majeure period. [or exclusively mentioned in the SCC of the Contract] Time for performance of the relative obligation suspended by Force Majeure shall then stand extended by the period for which such cause lasts."	It is requested that Force Majeure suspend affected obligations without depriving the Contractor of payment for services performed, unaffected recurring services, protected assets and unavoidable committed costs, and provide schedule and equitable cost relief where the event continues. Amendment Clause: "Should either party decide not to terminate the Contract even under such condition, no payment would apply after expiry of fifteen (15) days force majeure period.payment shall continue for services performed, unaffected recurring services, protection of COMPANY assets and unavoidable committed costs during the force majeure period. [or exclusively mentioned in the SCC of the Contract] Time for performance of the relative obligation suspended by Force Majeure shall then stand extended by the period for which such cause lasts.extended by the period for which such cause lasts, together with an equitable adjustment for demonstrable additional cost directly caused by the Force Majeure event."	No Change
1169	Part-4, Section-I (GCC), Clause 32.0 - Set-Off, Pages 82-83	"32.0 SET-OFF: Any sum of money due and payable to the CONTRACTOR (including Performance Security refundable to them) under this or any other Contract, whether in progress or in future, may be appropriated by OIL and set-off against any claim of OIL (or such other person or persons contracting through OIL) for payment of a sum of money arising out of this contract or under any other contract made by the CONTRACTOR with OIL (or such other person or persons contracting through OIL)."	Kindly limit set-off to undisputed amounts or amounts finally determined under this Contract, after prior notice and opportunity to respond. Cross-contract and third-person set-off should be deleted, and set-off should remain within the 10% aggregate non-indemnity cap. Amendment Clause: "32.0 SET-OFF: Any sum of money due and payable to the CONTRACTOR (including Performance Security refundable to them) under this or any other Contract, whether in progress or in future,under this Contract, may be appropriated by OIL and set-off against any claim of OIL (or such other person or persons contracting through OIL) for payment of a sum of money arising out of this contract or under any other contract made by the CONTRACTOR with OIL (or such other person or persons contracting through OIL).against an undisputed amount or an amount finally determined to be payable to OIL under this Contract, after prior written notice and reasonable opportunity to	No Change

			respond, subject to the aggregate non-indemnity liability cap under Clause 16.0."	
1170	Part-4, Section-I (GCC), Clause 42.3(4) - Arbitration, Page 90	"4. The Parties agree that dispute involving claims below Rs. 25 lakhs and above Rs. 5 crores shall not be subject matter of Arbitration but subject to the exclusive jurisdiction of the Court(s) situated at New Delhi."	It is requested that all contractual disputes, irrespective of claim value, remain referable to arbitration under the Arbitration and Conciliation Act, 1996, since value-based exclusion creates fragmented remedies and avoidable litigation. Amendment Clause: "4. The Parties agree that dispute involving claims below Rs. 25 lakhs and above Rs. 5 crores shall not be subject matter of Arbitration but subject to the exclusive jurisdiction of the Court(s) situated at New Delhiof any value shall be subject to Arbitration in accordance with this Clause."	No Change
1171	Part-4, Section-I (GCC), Clause 44.5 - Termination for Unsatisfactory Performance, Page 93	"44.5 Termination for Unsatisfactory Performance: If the COMPANY considers that, the performance of the CONTRACTOR is unsatisfactory, or not as per the provision of the Contract, the COMPANY shall notify the CONTRACTOR in writing and specify in details the cause of dissatisfaction. The COMPANY shall have the option to terminate the Contract by giving 15 days notice in writing to the CONTRACTOR, if CONTRACTOR fails to comply with the requisitions contained in the said written notice issued by the COMPANY. In the event CONTRACTOR rectifies its non-performance to the satisfaction of the COMPANY, the option of termination may not be exercised by the COMPANY. If however CONTRACTOR repeats non-performance subsequently, COMPANY shall exercise the option to terminate contract by giving 07 days notice. Such CONTRACTOR shall be put on	Kindly make termination dependent on a material breach measured against objective contractual criteria, with a thirty-day cure period (or a mutually agreed remediation plan where cure reasonably requires longer). Holiday listing should follow the separate Banning Policy and due process, not arise automatically from termination. Amendment Clause: "44.5 Termination for Unsatisfactory Performance: If the COMPANY considers that, the performance of the CONTRACTOR is unsatisfactory, or not as per the provision of the Contract, the COMPANY shall notify the CONTRACTOR in writing and specify in details the cause of dissatisfaction. The COMPANY shall have the option to terminate the Contract by giving 15 daysthirty (30) days notice in writing to the CONTRACTOR, if CONTRACTOR fails to comply with the requisitions contained in the said written notice issued by the COMPANY. In the event CONTRACTOR rectifies its non-performance to the satisfaction of the COMPANYin accordance with objective Contract requirements, the option of termination may not be exercised by the COMPANY. If however CONTRACTOR repeats non-performance subsequently, COMPANY shall exercise the option to terminate contract by giving 07 days notice. Such CONTRACTOR shall be put on holiday as per the Banning Policy of OIL [available at www.oil-india.in].If the same material breach recurs, COMPANY	No Change

		holiday as per the Banning Policy of OIL [available at www.oil-india.in]."	may issue a further fifteen (15) days' cure notice before termination. Any holiday-listing action shall be undertaken separately in accordance with the Banning Policy, applicable law and principles of natural justice."	
1172	Part-4, Section-I (GCC), Clause 44.9 - Termination for Convenience, Page 94	"44.9 Notwithstanding any provisions herein to the contrary, the Contract may be terminated at any time by the COMPANY on giving 30 (thirty) days written notice to the CONTRACTOR due to any other reason not covered under the above Article from 44.1 to 44.8 and in the event of such termination the COMPANY shall not be liable to pay any cost or damage to the CONTRACTOR except for payment of services as per the Contract upto the date of termination."	For termination for any reason whatsoever, kindly provide payment for completed and part-performed work, work in progress and usable deliverables, non-cancellable commitments, future costs previously incurred or committed solely for the Project, and reasonable demobilisation and exit-transition costs, without prejudice to amounts accrued before termination. Amendment Clause: "44.9 Notwithstanding any provisions herein to the contrary, the Contract may be terminated at any time by the COMPANY on giving 30 (thirty) days written notice to the CONTRACTOR due to any other reason not covered under the above Article from 44.1 to 44.8 and in the event of such termination for any reason whatsoever, the COMPANY shall not be liable to pay any cost or damage to the CONTRACTOR except for payment of services as per the Contract upto the date of terminationshall pay the CONTRACTOR for completed and part-performed work, work in progress and usable deliverables, non-cancellable commitments, future costs previously incurred or committed solely for the Project, and reasonable demobilisation and exit-transition costs, together with all other amounts accrued up to the date of termination."	No Change
1173	Part-4, Section-II (SOW), Clause 4.25 - Intellectual Property, Page 105	"4.25. All source code, models, workflows, dashboards, and platform customizations shall be the intellectual property of OIL, with full rights to extend, modify, or replicate the solution."	It is requested that OIL own only bespoke project-specific deliverables created exclusively and paid for under the Contract. Bidder/OEM pre-existing IP, reusable components, tools, frameworks, libraries, generic models, know-how and third-party materials should remain with their respective owners, with OIL receiving the licence required to use the delivered solution. Amendment Clause: "4.25. All source code, models, workflows, dashboards, and platform customizationsBespoke source code, models, workflows, dashboards and platform customizations created exclusively for OIL under and paid for through this Contract shall be the intellectual property of OIL, with full rights to extend, modify, or replicate the	Core COTS/OEM intellectual property remains with the owner. OIL-specific code, configurations, dashboards, workflows and integrations developed under the contract shall be provided to OIL.

			solution.with rights to use, extend and modify such bespoke deliverables for OIL's internal operations. All pre-existing or independently developed materials, reusable components, tools, frameworks, libraries, generic models, accelerators, know-how and third-party/OEM materials shall remain the property of the Bidder or respective licensors; OIL shall receive the licence necessary to use embedded background IP solely as part of the delivered solution, subject to applicable third-party terms."	
1174	Part-4, Section-II (SOW), Clause 7(i) - Additional AMC Manpower, Page 216	"i. Bidder shall deploy additional manpower as required by workload, subject to prior intimation to and approval by OIL, and shall bear all associated costs (no additional charge to OIL)."	Kindly clarify that the quoted price covers only the minimum manpower expressly specified in the RFP. Additional manpower arising from increased workload, new scope or Authority dependencies should be deployed through mutually agreed change control at applicable SOR/contract rates. Amendment Clause: "i. Bidder shall deploy additional manpower as required by workload, subject to prior intimation to and approval by OIL, and shall bear all associated costs (no additional charge to OIL)shall bear associated costs where required solely due to its failure to meet the expressly specified baseline scope. Additional manpower arising from increased workload, new scope or OIL/third-party dependencies shall be governed by mutually agreed change control at applicable SOR/Contract rates."	OIL will review and revert.
1175	Part-4, Section-III (SCC), Part A - De-Mobilization, Page 232	"De-Mobilization Prior to de-mobilisation on the date of completion of contract, bidder has to complete the following activities: a) Complete technical and operational knowledge transfer covering: - Architecture - Data pipelines - AI/ML models and retraining procedures - Dashboards and operational workflows b) Handover of: - Source code and repositories - Configuration files and deployment scripts - Model artefacts, feature stores and training pipelines - All technical and operational documentation c) All data sets in Cloud Infra are to be migrated to OIL provided new infrastructure. d) Transition support for a period of one(1) month to ensure continuity of operations. No data, models or artefacts shall be retained by the Bidder post exit."	It is requested that handover be limited to OIL data and bespoke, paid-for project deliverables. Bidder/OEM background IP, shared infrastructure, internal tools, generic models, credentials, third-party materials and reusable know-how should be excluded. Transition should be dependency-based, in a mutually agreed open format, and retention of one secure archival copy should be allowed where required by law, audit or backup rotation. Amendment Clause: "De-Mobilization Prior to de-mobilisation on the date of completion of contract, bidder has to complete the following activities: a) Complete technical and operational knowledge transfer covering: - Architecture - Data pipelines - AI/ML models and retraining procedures - Dashboards and operational workflows b) Handover of: - Source code and repositories - Configuration files and deployment scripts - Model artefacts, feature stores and training pipelines - All technical and operational documentation c) All data sets in Cloud Infra are to be migrated to OIL provided new infrastructure. d) Transition support for a period of one(1) month to ensure continuity of operations. No data, models or	No change

			artefacts shall be retained by the Bidder post exit. Handover shall be limited to OIL data and bespoke project-specific deliverables created exclusively and paid for under the Contract, in a mutually agreed open format. Bidder/OEM pre-existing IP, shared infrastructure, internal tools, generic models, credentials, third-party materials and reusable know-how are excluded, subject to OIL receiving necessary usage rights. Transition timelines shall depend on OIL providing access, target infrastructure and approvals. The Bidder may retain one secure archival copy where required by law or audit, and residual backup copies until routine overwrite, in each case remaining confidential and inaccessible for business use."	
1176	Part-4, Section-III (SCC), Clause 4.3 - SLA During Implementation Stage, Page 247	"The SLA shall be used to evaluate the timely execution of deliverables for Go-Live. 1 Service Level Agreement All the deliverables defined in the contract must be submitted on-time on the date as mentioned in the contract with no delay. 2 Liquidated Damage For delay in final Go-live, Liquidated Damages, a sum equivalent to @ 0.5% of Implementation Cost* per week or part thereof of delay subject to maximum of 7.5% of the Implementation Cost* shall be applicable."	Kindly apply implementation LD only to delay solely attributable to the bidder, after excluding OIL approvals, site/access readiness, data availability, third-party/OEM systems, change requests and Force Majeure. Implementation LD, mobilization LD, SLA penalties and all other non-indemnity remedies should together remain within the single aggregate 10% Contract Value cap, with no duplicate recovery. Amendment Clause: "The SLA shall be used to evaluate the timely execution of deliverables for Go-Live. 1 Service Level Agreement All the deliverables defined in the contract must be submitted on-time on the date as mentioned in the contract with no delay. 2 Liquidated Damage For delay in final Go-live, Liquidated Damages, a sum equivalent to @ 0.5% of Implementation Cost* per week or part thereof of delay subject to maximum of 7.5% of the Implementation Cost* shall be applicable. Liquidated Damages shall apply only to delay solely attributable to the Bidder, excluding delay caused by OIL approvals, access/site readiness, data availability, third-party/OEM systems, change requests, Force Majeure or other causes beyond the Bidder's reasonable control. The aggregate of all LD, SLA/service penalties, service credits and other non-indemnity monetary remedies under the Contract shall not exceed 10% of the Contract Value, and there shall be no duplicate recovery for the same event."	No change

1177	Part-4, Section-III (SCC), Clause 4.4 - Post-Implementation SLA Penalties, Page 247	"4.4. POST-IMPLEMENTATION PHASE 2. These SLAs shall be used to evaluate the performance of the services on monthly basis, but penalties would be levied for cumulative performance on quarterly basis. 4. Penalty levied for non-performance as per SLA requirements shall be deducted through subsequent payments due from OIL. 6. The penalty shall be capped at a maximum of 7.5% of the quarterly contract value for the relevant AMC period. 7. In absence of resources during AMC period, a penalty of Rs. 10,000/- per day per person shall be recovered from the quarterly AMC invoice of the Bidder. 8. In addition to the AMC resources, absence of Hyper Care resources during Hyper care period, a penalty of Rs. 10,000/- per day per person shall be recovered from the Hypercare Payment as per Payment Terms # 6. 9. Performance Penalty shall be levied for not meeting each SLA."	It is requested that penalties apply only to failures solely attributable to the bidder; multiple SLA measures arising from the same root cause should constitute one event. Resource-absence penalties should apply only where the absence materially affects service and no qualified replacement is provided. All SLA/LD/other non-indemnity remedies should remain within the single aggregate 10% Contract Value cap. Amendment Clause: "4.4. POST-IMPLEMENTATION PHASE 2. These SLAs shall be used to evaluate the performance of the services on monthly basis, but penalties would be levied for cumulative performance on quarterly basis. 4. Penalty leviedPenalty, subject to the aggregate cap below, levied for non-performance as per SLA requirements shall be deducted through subsequent payments due from OIL. 6. The penalty shall be capped at a maximum of 7.5% of the quarterly contract value for the relevant AMC period. 7. In absence of resources during AMC period, a penalty of Rs. 10,000/- per day per person shall be recovered from the quarterly AMC invoice of the Bidder. 8. In addition to the AMC resources, absence of Hyper Care resources during Hyper care period, a penalty of Rs. 10,000/- per day per person shall be recovered from the Hypercare Payment as per Payment Terms # 6. 9. Performance Penalty shall be levied for not meeting each SLA.Performance Penalty shall apply only to failures solely attributable to the Bidder. Multiple SLA breaches arising from the same root cause shall constitute one event and shall not result in duplicate recovery. Resource-absence penalties shall apply only where absence materially affects service and no qualified replacement is provided. The aggregate of all LD, SLA/service penalties, service credits, set-off and other non-indemnity monetary remedies under the Contract shall not exceed 10% of the Contract Value."	No change
1178	Part-4, Section-III (SCC), Clause 6 - Exit Management: Data Ownership and Sanitization, Page 248	"Data Ownership All data generated, stored, and processed shall be solely owned by OIL. Data Sanitization (Vendor side) In the event of expiry or termination of this contract, the vendor shall cease to use OIL's data and, at the request of OIL, shall destroy all such copies of the OIL's data then in its possession and shall ensure that the data cannot be	Kindly clarify that OIL ownership covers OIL-provided data and project-specific outputs, but excludes bidder/OEM service telemetry, anonymised operational metrics, reusable know-how and background IP. Sanitisation should permit legal/audit retention and routine backup overwrite, subject to continued confidentiality and non-use. Amendment Clause: "Data Ownership All data generated, stored, and processedAll OIL-provided data and project-specific outputs generated, stored, and processed for OIL shall be solely owned by OIL. Data Sanitization (Vendor side)	To be guided by tender requirements

		forensically recovered and furnish a certificate towards the same to OIL."	In the event of expiry or termination of this contract, the vendor shall cease to use OIL's data and, at the request of OIL, shall destroy all such copies of the OIL's data then in its possession and shall ensure that the data cannot be forensically recovered and furnish a certificate towards the same to OIL.and shall ensure that the data cannot be forensically recovered and furnish a certificate towards the same to OIL, except that one secure archival copy may be retained where required by law or audit and residual backup copies may remain until routine overwrite, subject to continued confidentiality and no business use. Bidder/OEM service telemetry, anonymised operational metrics, reusable know-how and background IP are excluded from OIL Data."	
1179	Part-4, Section-III (SCC), Clause 6 - Exit Management: Licences, Entitlements & Portability, Page 249	"Licences, Entitlements & Portability All software licences procured by the Contractor for the Solution that are required for normal operation shall be transferred or assigned to OIL (or reissued in OIL's name) at no additional cost, unless otherwise stated in the licence terms agreed up-front. Where licences are non-transferable, the Contractor shall obtain, at its cost, replacement or perpetual licences acceptable to OIL. The Contractor shall provide a complete inventory of all software (commercial and open source), licences, entitlements, support contracts, and any limitations or vendor dependencies, together with license keys, vendor contacts and renewal schedules. For any custom-developed software, models, dashboards, workflows, automation scripts, and configuration, the Contractor shall deliver source code, build scripts, compiled artifacts, container images."	It is requested that transfer apply only to transferable licences purchased in OIL's name or expressly priced for assignment. Non-transferable OEM/SaaS licences should remain subject to licensor terms, without an obligation to fund replacement/perpetual rights. Source-code delivery should cover only bespoke, paid-for project code and exclude background IP and third-party components. Amendment Clause: "Licences, Entitlements & Portability All software licences procured by the Contractor for the Solution that are required for normal operation shall be transferred or assigned to OIL (or reissued in OIL's name) at no additional cost, unless otherwise stated in the licence terms agreed up-front. Where licences are non-transferable, the Contractor shall obtain, at its cost, replacement or perpetual licences acceptable to OIL.Software licences procured expressly in OIL's name or expressly priced for assignment shall be transferred or assigned to OIL, subject to the licence terms agreed up-front. Non-transferable OEM, SaaS and third-party licences shall remain subject to applicable licensor terms; any replacement or perpetual rights requested by OIL shall be procured through mutually agreed change control. The Contractor shall provide a complete inventory of all software (commercial and open source), licences, entitlements, support contracts, and any limitations or vendor dependencies, together with license keys, vendor contacts and renewal schedules. For any custom-developed software, models, dashboards, workflows, automation scripts, and configuration, the Contractor shall deliver source code, build scripts,	OIL will review and revert.

			compiled artifacts, container images.For bespoke software, models, dashboards, workflows, automation scripts and configuration created exclusively for OIL under and paid for through the Contract, the Contractor shall deliver the corresponding source code, build scripts, compiled artifacts and container images. Bidder/OEM background IP, reusable components, tools, generic models and third-party materials are excluded, subject to OIL receiving necessary usage rights."	
1180	Part-4, Section-III (SCC), Clause 6 - Exit Management: Cloud & Infrastructure Transition, Pages 249-250	"Cloud & Infrastructure Transition For vendor-managed cloud services, the Contractor shall: • Provide full documentation of the cloud architecture, tenancy details, resource mapping, CSP billing data, network and security configurations, IaC/automation templates (Terraform/Ansible/ARM), container images, and CI/CD pipelines. • Ensure all data processing, backups, and disaster recovery artefacts are located within India, consistent with contract data residency requirements, and document exact data locations. • Provide migration support to OIL's enterprise cloud (or to a nominated CSP) including export of VM images, container registries, object storage buckets, database exports, and any necessary conversion tools. • Assist in setting up equivalent infrastructure in the target environment and execute cut-over with minimal disruption. The Contractor shall not terminate cloud services or remove or destroy Client data until OIL issues written acceptance of successful data migration and secure receipt."	Kindly make transition subject to CSP/OEM terms and exclusion of shared infrastructure, internal credentials and proprietary automation. OIL should provide the target environment, licences, access and timely decisions; delay caused by these dependencies should extend the transition and reimburse continued third-party cloud charges. Acceptance should be deemed after a defined review period. Amendment Clause: "Cloud & Infrastructure Transition For vendor-managed cloud services, the Contractor shall: • Provide full documentation of the cloud architecture, tenancy details, resource mapping, CSP billing data, network and security configurations, IaC/automation templates (Terraform/Ansible/ARM), container images, and CI/CD pipelines. • Ensure all data processing, backups, and disaster recovery artefacts are located within India, consistent with contract data residency requirements, and document exact data locations. • Provide migration support to OIL's enterprise cloud (or to a nominated CSP) including export of VM images, container registries, object storage buckets, database exports, and any necessary conversion tools. • Assist in setting up equivalent infrastructure in the target environment and execute cut-over with minimal disruption. The Contractor shall not terminate cloud services or remove or destroy Client data until OIL issues written acceptance of successful data migration and secure receipt. Transition is subject to CSP/OEM terms and excludes shared infrastructure, internal credentials, proprietary automation and third-party materials not transferable under applicable licence terms. OIL shall timely provide the target environment, licences, access and decisions. Delay caused by OIL or the nominated provider shall extend the transition schedule and OIL shall reimburse documented continued third-party cloud charges. Migration shall be deemed accepted if OIL does not provide specific written deficiencies	OIL will review and revert.

			within ten (10) working days after submission of completion evidence."	
1181	Part-4, Section-III (SCC), Clause 6 - Exit Management: Exit Sign-off, Pages 250-251	"Exit Sign-off Exit management phase shall be considered complete when all the following requirements are met: 1. Agent uninstallation. 2. Decommissioning of vendor deployed on-premises infrastructure. 3. Exit knowledge transfer. 4. Exit configuration transfer. 5. Exit documentation transfer. 6. Data sanitization on vendor's custody and submission of certificate to OIL. 7. OIL's approval for exit related deliverables."	It is requested that OIL review exit deliverables within ten working days, identify specific deficiencies, and not unreasonably withhold approval. Exit should be deemed complete if no observations are issued within that period, so final payment and security release are not open-ended. Amendment Clause: "Exit Sign-off Exit management phase shall be considered complete when all the following requirements are met: 1. Agent uninstallation. 2. Decommissioning of vendor deployed on-premises infrastructure. 3. Exit knowledge transfer. 4. Exit configuration transfer. 5. Exit documentation transfer. 6. Data sanitization on vendor's custody and submission of certificate to OIL. 7. OIL's approval for exit related deliverables.7. OIL's approval for exit related deliverables, which shall not be unreasonably withheld or delayed. OIL shall provide specific written deficiencies within ten (10) working days of submission; otherwise, the exit deliverables and Exit management phase shall be deemed accepted and complete."	OIL will review and revert.
1182	II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 113 of 343	A2.8 Refresh Rate :7680 Hz	Request to consider a minimum refresh rate of 3840 Hz or higher, which is widely accepted as the industry standard for professional indoor fine-pitch LED displays and provides excellent visual performance, flicker-free viewing, and broadcast compatibility while enabling wider OEM participation. Requested Change:- A2.8 Refresh Rate :7680 Hz Minimum 3840 Hz or higher	The offered LED display shall comply with the minimum refresh rate of 7680 Hz specified in the tender. The bidder shall submit supporting OEM technical documentation demonstrating compliance.
1183	II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 113 of 343	A2.18 Protection and Surface Treatment :Anti-Scratch, Anti-Dust, Anti-Moisture, Anti- Collision, Anti-Glare, Anti-Static, Anti-Moiré, Front Water-Proof	IP50 is an established industry standard for indoor control room and command center applications and adequately ensures protection against dust and operational wear.	No Change: To be guided by Tender Terms

1184	II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 113 of 343	BIS and Low Blue light / Eye Comfort Certifications	Eye Comfort certifications vary across manufacturers and may unnecessarily restrict competition Requested change: BIS to be provided and Low Blue light / Eye Comfort Certifications (optional)	OIL will review and revert
1185	B2 Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components Page no 145 of 343	B2.7 Refresh Rate :7680 Hz	Request to consider a minimum refresh rate of 3840 Hz or higher, which is widely accepted as the industry standard for professional indoor fine-pitch LED displays and provides excellent visual performance, flicker-free viewing, and broadcast compatibility while enabling wider OEM participation. Requested Change:- A2.8 Refresh Rate :7680 Hz Minimum 3840 Hz or higher	The offered LED display shall comply with the minimum refresh rate of 7680 Hz specified in the tender. The bidder shall submit supporting OEM technical documentation demonstrating compliance.
1186	B2 Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components Page no 146 of 343	B 2.17 Protection and Surface Treatment :Anti-Scratch, Anti-Dust, Anti-Moisture, Anti- Collision, Anti-Glare, Anti-Static, Anti-Moiré, Front Water-Proof	IP50 is an established industry standard for indoor control room and command center applications and adequately ensures protection against dust and operational wear.	No Change: To be guided by Tender Terms
1187	B2 Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components Page no 146 of 343	BIS and Low Blue light / Eye Comfort Certifications	Request to mention BIS to be provided and Low Blue Light/Eye Comfort certification optional . Eye Comfort certifications vary across manufacturers and may unnecessarily restrict competition Requested change: BIS to be provided and Low Blue light / Eye Comfort Certifications (optional)	OIL will review and revert
1188	D2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount Page 175 of 343	D 2.8 Refresh Rate :7680 Hz	Request to consider a minimum refresh rate of 3840 Hz or higher, which is widely accepted as the industry standard for professional indoor fine-pitch LED displays and provides excellent visual performance, flicker-free viewing, and broadcast compatibility while enabling wider OEM participation. Requested Change:- A2.8 Refresh Rate :7680 Hz Minimum 3840 Hz or higher	The offered LED display shall comply with the minimum refresh rate of 7680 Hz specified in the tender. The bidder shall submit supporting OEM technical documentation demonstrating compliance.

1189	D2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount Page 176 of 343	D 2.18 Protection and Surface Treatment :Anti-Scratch, Anti-Dust, Anti-Moisture, Anti- Collision, Anti-Glare, Anti-Static, Anti-Moiré, Front Water-Proof	IP50 is an established industry standard for indoor control room and command center applications and adequately ensures protection against dust and operational wear.	No Change: To be guided by Tender Terms
1190	D2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount Page 176 of 343	BIS and Low Blue light / Eye Comfort Certifications	Request to mention BIS to be provided and Low Blue Light/Eye Comfort certification optional . Eye Comfort certifications vary across manufacturers and may unnecessarily restrict OEM participation. Requested change: BIS to be provided and Low Blue light / Eye Comfort Certifications (optional)	OIL will review and revert
1191	II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343	A2.26 Number of Inputs: Required number of Inputs to achieve Pixel-to-Pixel Resolution in Stereoscopic 3D & HDR10+ and additional 20% spare input ports	LED Controller is connected to LED Tiles only and take input from IPKVM decoders and Oil India input sources will only directly connected to IPKVM Encoders so additional spares in LED Controller are not required Requested change: Required number of Inputs to achieve Pixel-to-Pixel Resolution in Stereoscopic 3D & HDR10+ and additional 20% spare input ports.	No Change: To be guided by Tender Terms
1192	II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343	A2.27 Number of Outputs (RJ45/ OFC): Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode and additional 10% for Spare Output ports	LED Controller is connected to LED Tiles only and take input from IPKVM decoders and Oil India input sources will only directly connected to IPKVM Encoders so additional spares in LED Controller are not required Requested change: Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode and additional 10% for Spare Output ports.	No Change: To be guided by Tender Terms
1193	II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343	A2.27 Number of Outputs (RJ45/ OFC): Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode and additional 10% for Spare Output ports	LED Controller is connected to LED Tiles only and take input from IPKVM decoders and Oil India input sources will only directly connected to IPKVM Encoders so additional spares in LED Controller are not required Request you it to change: Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode	No Change: To be guided by Tender Terms

1194	II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343	A2.27 Number of Outputs (RJ45/ OFC): Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode and additional 10% for Spare Output ports	LED Controller is connected to LED Tiles only and take input from IPKVM decoders and Oil India input sources will only directly connected to IPKVM Encoders so additional spares in LED Controller are not required Requested change: Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ and stereoscopic 3D Mode and additional 10% for Spare Output ports.	No Change: To be guided by Tender Terms
1195	II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components Page 114 of 343	A2.29 Features: - Hot-swappable input and output cards - Frame synchronization: image should be played smoothly, without any stuck, frame loss, tearing or piercing - Should supports HDR10+ and Stereoscopic 3D Function - Auto monitoring and fault alarms should be available	For wider OEM participation we request the autority to incorporate the requested changes. Requested change: A2.29 Features: - Hot-swappable input and output cards - Frame synchronization: image should be played smoothly, without any stuck, frame loss, tearing or piercing - Should supports HDR10+ and Stereoscopic 3D Function - Auto monitoring and fault alarms should be available	OIL will review and revert
1196	A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 116 of 343	A4.1.6 True Redundancy and High Availability: The True Redundancy and High Availability (HA) framework should ensure that the system remains fully operational under any fault condition — whether network, hardware, power, or controller-related: 1. Controller-Level Redundancy – dual synchronized controllers (active/standby). 2. Network-Level Redundancy – dual switches, VLAN separation, and redundant fiber paths. 3. Power-Level Redundancy – dual independent power supplies for each node. 4. Device-Level Redundancy – duplicate TX/RX units for critical feeds and displays.	For wider OEM participation we request the autority to incorporate the requested changes. Requested Changes: A4.1.6 True Redundancy and High Availability: The True Redundancy and High Availability (HA) framework should ensure that the system remains fully operational under any fault condition — whether network, hardware, power, or controller-related: 1. Controller-Level Redundancy – dual synchronized controllers (active/standby). 2. Network-Level Redundancy – dual switches, VLAN separation, and redundant fiber paths. 3. Power-Level Redundancy – dual independent power supplies for each controller node. 4. Device-Level Redundancy – duplicate TX/RX units for critical feeds and displays.	OIL will review and revert
1197	A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343	A4.1.30 Display: Minimum 10.1'' LCD touch display, resolution 1280x800 @60Hz	For wider OEM participation we request the autority to incorporate the requested changes. Requested changes: A4.1.30 Display: Minimum 10.1'' LCD touch buttons to control layout display, resolution 1280x800 @60Hz	No change

1198	A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343	A4.1.31 Source Control: The touch display should support, multi touch control of any connected source with zoom in zoom out gestures etc.	For wider OEM participation we request the autority to incorporate the requested changes. Requested changes: A4.1.31 Source Control: The touch display should support of control layout of any connected source, multi touch control of any connected source with zoom in zoom out gestures etc.	The intent of the clause is to enable operators to interact with visualized content and connected sources through a touch-enabled interface supporting standard gestures such as zoom, pan, navigation, source selection, and other appropriate multi-touch interactions where supported by the source application and system architecture. Bidders may propose equivalent or superior solutions. However, the functionality for multi-touch interaction and gesture-based control of visualized content shall remain available as specified in the tender.
1199	A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343	A4.1.32 Environment Control: The Operator Console should provide customizable layout for environment control for controlling lights, HVAC, doors, height adjustments of consoles etc.	For wider OEM participation we request the autority to incorporate the requested changes. Requested changes: A4.1.32 Environment Control: The Operator Console should provide customizable layout for environment control for controlling lights, HVAC, doors, height adjustments of consoles etc.	OIL will review & revert
1200	A4. SITC of Command-and-Control Suite 4K60 IPKVM, Encoders, Operator Console, and Videowall Decoders with videowall processor with redundancy Page 118 of 343	A4.1.35 Programmable Touchscreen Display: - Operators should be able to create custom layouts with soft-keys and role-based menus. - Operators shall, via a role-based desktop interface, be able to preview, route authorized sources/layouts between their workstation, the video wall and other room displays; securely share windows - Operator Consol should dynamically adapt to user profiles, reflecting permissions and assigned sources. - Operator Consol should support real-time feedback for source selection, wall presets, and communication channels.	For wider OEM participation we request the autority to incorporate the requested changes. Requested changes: A4.1.35 Programmable Touchscreen Display operator console: - Operators should be able to create custom layouts with soft-keys and role-based menus. - Operators shall, via a role-based desktop interface, be able to preview, route authorized sources/layouts between their workstation, the video wall and other room displays; securely share windows - Operator Consol should dynamically adapt to user profiles, reflecting permissions and assigned sources. - Operator Consol should support real-time feedback for source selection, wall presets, and communication channels.	OIL will review & revert
1201	2.7.1.9. Page 327 of 343 The Video Wall solution should comply with relevant international standards, including:	The Video Wall solution should comply with relevant international standards, including: •ISO 9001:2015 – Quality Management System •ISO 45001 – Occupational Health & Safety Management System (or equivalent) •ISO 14001:2015 – Environmental Management System (or equivalent)	Request to consider following certification so as to protect sensitive operational and business information from cyber threats, unauthorized access, data breaches, and system compromise. Requested change: The Video Wall solution should comply with relevant international standards, including: •ISO 9001:2015 – Quality Management System •ISO 27001:2022 – Information Security Management System •ISO 45001 – Occupational Health & Safety Management System (or equivalent) •ISO 14001:2015 – Environmental Management System (or equivalent)	No Change: To be guided by Tender Terms

1202	125	A7.4 Software Compatibility Layer | 3D visulaization | 3D visualization of 3D applciation	the 3D Visualization requirenment as detailed in the RFP for the LED videowall doesnot match the controller and workstation specification, need clarfiication on the solution	OIL will review and revert.
1203	125	A7.5 Networking & Collaboration | VR Multi collaboration | VR collaboration on network	How this is to be functional as users application should support multi collaboration , 3D synch match on network only possible with exact specification on both ends , need clarification 2. We understand that the main requirement of this setup is to demonstrate applications like Petrel & Plant Data in 3D. Kindly clarify the need for real-time physics engines in this setup? Petrel has no co-relation with any physics engine. Does OIL plan to design plant layouts, carry out ergonomic studies etc. in this CCC setup. If yes, which SW platforms does OIL plan to use and in which formats do existing data exists? Physics engines are typically used in CAD design environments, but for CAD environments customers never use curved screens due to inherent distortion.	OIL will review and revert.
1204	125	A7.6 Simulation & Digital Twin Integration | Digital twin | Digital twin simulations	Need clarification on user digital twin terminology and use case, digital twin can be done in multiple ways, need clarification for customer specific requrienment of digital twin	The bidder shall comply with the applicable immersive visualization and Digital Twin requirements in Sections 5 and 6.3, including embedded visualization, required hardware/software, interfaces, licensing, integration and support. Equivalent or superior specifications may be proposed only where the tender permits.
1205	127	A7.25 Eye Tracking Integration | eye tracking solution in 3D | eye tracking for 3D applciation	eye tracking for 3D application in HMD or in videowall , need clarification, also tracking area in front LED videowall need to be marked for whole body or hand or head tracking, need clarification	OIL will review and revert.

1206	133	A11 Holographic box with Ai assistant | Holographic Display | Holohgraphic display asks for multiple input and videos, doiesnot mention where the data will be pushed to this display	Holographic Display with CMS will be different application or it will be integrated to the CCC application, not clear anything from the specifications , please provide more details on content and usage.	OIL will review and revert.
1207	133	A11 Holographic box with Ai assistant | Holographic Display | Holographic display orientation & location	Holographic display will be vertical based solution at the entrance or somewhere else, need clarification	To be finalised during solution blueprint design
1208	124	A6.29 | AI based interaction assitant | Ai assistant	for Holographic display to use LLM based AI model, we want internet connectivity, please confirm whetehr internet will be allowed here, these AI models will have data of OIL to process langugae change or provide specific inputs, how much data can be exposed to these AI models, is there any restriction	OIL will review and revert.
1209	155	B6.25 | Gesture-Based Actions | The application should support actions based on gestures, such as writing "W" as a gesture to trigger and populate relevant content.	The gesture will only be supported for those applications which support gesture based format, please confirm the same,	OIL will review and revert.
1210		B8.5 | Collaboration workspace Monitor | SITC of 85" Interactive Display for Warroom / Collaboration Workspace with mount Make	Brightness - 300cd/m2 is too less considering the size of the 88 inches display for Video Cofnerencing solution	The offered solution shall meet or exceed the minimum control-room display and command-and-control specifications stated for the applicable location. Bidder shall quote make/model and include all controllers, redundancy, mounting, interfaces, accessories, FAT/SAT and five-year support required for a complete solution.

1211	159	B9.1.7 | Rooms License | Should Include Zoom Room License and Conference Room Connector for SIP/H.323 Endpoint with 5 Year	Please confirm if only zoom is the only soft VC available with OIL, will this VC system also require to have H.323 calling,How about teams meeting	The bidder shall provide the complete VC/AV system for the applicable location, including specified cameras, audio, control, conferencing licences, integration, cabling, commissioning and support in accordance with Section 5.
1212	159	B9.1.9 | Video Inputs | Should support Decoding of Video sources from IPKVM for Wired Content Sharing	details of the video sources required , as multiple layered network will be there for CCC, not clear from this specifications	The offered solution shall meet or exceed the minimum control-room display and command-and-control specifications stated for the applicable location. Bidder shall quote make/model and include all controllers, redundancy, mounting, interfaces, accessories, FAT/SAT and five-year support required for a complete solution.
1213	131	A10 | 88 inches stretched Monitor | Stretched Monitor integration with CCC applciation	The stretched monitor aspect ratio will be stretched too far, some of the applciation and data which are part of CCC applciation or on LED videowall will not be shown properly on this stretched monitor. 2. The CCTV live feed to be incproproated in this monitor will also have same problem, as this is stretched monitor and will not get the feed correctly, in case we take the NVR feed, than also it has to be displayed in multiple mosiac , else all images will be stretched, secondly, no direct 4K feed possible on this display, it will be dual FHD stitched together , need more details for this solution	OIL will review and revert.
1214	127-128	A8 | Motorized 21.5 inches montior with Microphone | Display and audio system for war room	Please provide the dimension of the table ,as this system will take lot of space and table and the room should be big enough to have so many motoirized montiors and microphones, the noise level during operation will be 50dB , this will be irritating during meeting, 2. Audio system for speech reinfoircement - no details mentioned 3. Please ellaborate this system , as this platform applciation available in the amrket doesnot support , IT security requried for complaince with CCC applciations, how much data this application will handle, as this collaboration suites will require internet for updates, need clarification	OIL will review and revert.

1215	135 -136	A13 | Video conferenicng and audio system | Video conferenicng and audio system	Do this video conferencing system is for war room or CCC centre, for the command centre speakers quantity are not enough, what is the coverage angle of the Video Conferencing camera? Since the CCC will have 32:9 stretched monitor infront of the people, the front LED videowall is full wall to wall coverage , how is this Camera with VC going to work in the room 2. Same is for the FHQ as well, need layout and details of the room and position of the people participating in the VC	The offered solution shall meet or exceed the minimum control-room display and command-and-control specifications stated for the applicable location. Bidder shall quote make/model and include all controllers, redundancy, mounting, interfaces, accessories, FAT/SAT and five-year support required for a complete solution.
1216	258	A14 & B10 | CCTv & Facial Recognition based Access control | Access control through facial recognition	is this camera is only for monitoring or this camera to be integrated with access control for face reading, since there should be multiple doors, for access control the reader should be having camera and biometric both , cctv should be for surveillance, also cctv cameras need to be more considering other utility areas, need clarification	The bidder shall provide the complete VC/AV system for the applicable location, including specified cameras, audio, control, conferencing licences, integration, cabling, commissioning and support in accordance with Section 5.
1217	114	A2.23 | Qty of LED Controllers: | Minimum 2 nos (1 no for Active connection and 1no for Redundant Connection)	A 16.8mtrs x 2.7mtrs LED screen of 0.93mm pixel pitch will have a resolution of ~ 18000 x 2900 pixels. For driving an LED wall of this size & resolution, even in 2D at normal 60Hz resolution, one would need multiple controllers. There is no processor in the market which can handle such large resolution from a single controller. We request you to kindly consider this & amend this clause accordingly	OIL will review and revert.
1218	114	A2.25 | Type of Inputs : | HDMI 2.0/2.1 4K with Custom Resolution Input supported	We request you to kindly replace 'HDMI 2.0/2.1" with "DP1.2/1.4". All nVidia graphics cards supporting Active 3D comes with only DP1.2/1.4 ports. Professional DP1.4 -> HDMI 2.0/2.1 convertors are not available easily and are also not reliable for long-term use in Critical environments like CC. Deploying LED controllers with only HDMI ports will make the system unstable for 3D use-case. Also, for 3D all signals going to all controllers must be perfectly in sync, for this very first requirement is to make sure that the 3D outputs from the graphics remain cards synchronized; any additional conversion devices only add to non-synchronization. Additionally, the LED controllers should also have 3D sync In/Out connector to provide required sync to 3D emitter of the Active 3D glasses. Plus, all the controllers also need to operate fully in sync other 3D will be completely useless. Request you to kindly also specify that these devices should be hard-wired sync/frame locked with each other over a dedicated sync port and that these devices should also	OIL will review and revert.

			have a dedicated port to provide 3D sync to 3D emitter(s).	
1219	117	A4 | KVM Transmitters & KVM Receivers | KVM Transmitters & KVM Receivers	The specifications of the KVM transmitters & receivers don't seem to be fully inline with the requirements of deploying such a large & high-resolution 3D LED wall: Stereoscopic functionality should also be mentioned for KVM Transmitters, not just for KVM receivers. If the transmitters are not capturing the Stereo 3D information, then the KVM receivers & the 3D LED wall will not get the stereo 3D information for displaying For both transmitter & receiver, the max resolution support specified is 3840 x 2160 @60Hz only. It is industry known fact that for good Active 3D, 120hz signal is required. Request you to kindly amend this spec to 3840 x 2160 @120Hz or higher It is evident that for capturing & transmitting 3D data for such a large resolution, one would need 9-10 sets of such transmitters/receivers with each of them supporting input/output of upto 3840x2160 @120hz . Since the overall image will be required to be split across these many transmitters/receivers, it is absolute must that these devices can be hard-wired sync/frame locked with each other without which the 3D over the entire screen will never be in sync and will be completely useless. Hence, we request you to specify that these devices, like the LED controllers, should have dedicated sync ports to sync/frame lock them with each other	OIL will review and revert.
1220		Network Topology & architecture | Bandwidth/resolution/Cyber security	We sincerely request OIL to reevaluate the need for IP based source distribution & management for this installation. IP based movement of such high-resolution data of 18000 x 2900 @120Hz will require huge network bandwidth and will also result in network latency (even with dedicated network, which will certainly be higher than 1G). IP based deployments are good & valuable when the source streams are required to be distributed to multiple buildings in a large complex where running dedicated physical cabling becomes very expensive. For current requirement of OIL, a non-IP based solution will be much more stable & cost-effective. There are many certifications	OIL will review and revert.

			mentioned for different products/components of the specified IP based solution, but one of the most important certifications today related to Cyber Threats i.e. ISO 27001:2022 for Information Security Management System is missing. Would be prudent for OIL to specify this for the IP based solution, incase OIL continues with IP based solution instead of much more stable hard-wired non-IP based solution	
1221		A7.3 | Hand-Tracking Controllers Six-DOF controllers with optical tracking (≥ 200 fps), Each user should have their own tracked input device | Hand-Tracking Controllers Six-DOF controllers with optical tracking (≥ 200 fps), Each user should have their own tracked input device	1. Controllers are requested with 200fps, but the display will be refreshed at 120fps max (= 60 fps per eye). Please reconsider this 2. "Each user should have their own tracked input device". In layman terms, this translates into one computer with multiple mouse & keyboard devices. Needless to say, this will render system useless as the 3D pointer in 3D mode will become completely unstable as multiple controllers will try to give the command to the pointer	OIL will review and revert.
1222		A7.24 | Inside-out tracking | Inside-out tracking	This is only applicable for HMD devices which support for inside out tracking. Kindly remove this as no such devices are requested in the Tender	OIL will review and revert.
1223		5.1.2 | The modular control desks (both metal and non-metal), designer metal ceilings and modular metal panelling shall be assessed for cradle-to-grave environmental impact and verified through Life Cycle Assessments (LCA) by approved consultants. Control desks and interior components, including ceilings and panelling, must also have Environmental Product Declarations (EPD) in accordance with ISO 14025 or equivalent, verifying their minimal environmental impact and contribution to sustainable design.	We request you to allow Greenguard Certificate too, Products that have achieved GREENGUARD Certification are scientifically proven to meet some of the world's most rigorous third-party chemical emissions standards, helping to reduce indoor air pollution and the risk of chemical exposure. Only 1 or 2 Company in India who is having LCA & EPD for Control Desks, designer metal ceilings and metal panelling as they are the manufacturers of all above components. This EPD & LCA clause restricts both Interior Solution Providers having better sustainable and enviornmental products & solution, this clause will severly restrict competition and will be proprietary	OIL will review and revert.

1224	184	6.1 | OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration | The proposed Data Lake shall be OT-grade, designed specifically for handling real-time, time-series, and operational data from industrial systems.	Need to understand the security /data layer at site,. Since the DCS/MCS/SCADA based system are considered L2 layer, the boundry of these system are considered as L3 & take the entreprise level data to visibility, KPI & reports the same is considered L4 , in between to protect the OT layer from cyber threats a L3.5 is created for secure data historian and accessibility, this is as per the IEC 62443 standards, need to understand the current IEC 62443 standards being followed at every location where in the OT data has to be integrated with the OT data Lake solution	OIL will review and revert.
1225	184	6.1 | OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration | Bidder shall integrate all identified OT & IoT systems into the Data Lake using secure connectors, protocols (e.g., OPC-UA, Secured APIs).	Need to understand the secure connectors API's more in details like MQTT and REST API is also considered by OIL	Please refer to amended OT Architecture
1226	184	6.1 | OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration | Secure communication between OT and IT systems shall be established by the bidder, strictly adhering to OEM recommendations and approved cyber- security standards.	Need to understand more on this , as OIL must be following ISMS standards for IT system and IEC 62443 for OT, at which stage both data convergence and process/procedure being followed	IT/OT convergence shall be implemented through approved secure gateways, segmented zones and controlled data flows, aligned with OIL security policies and applicable standards. Detailed procedures will be finalized during design.
1227	184	6.1 | OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration | The bidder shall configure asset hierarchies, asset models, and asset templates in accordance with the defined functional specifications.	Asset hierarchies , asset models and templates will be already as per the third party OEM's already in operation, we can take the same in our OT data lake applciation, we cannot modify much , apart from the UI and data display , Do you follow ISO 14224 for Asset hierarchy and naming	OIL will review and revert.
1228	185	6.1 | OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration | All required cyber-security measures shall be implemented in alignment with OIL's cyber-security policy.	Please provide the current ISMS policies and OT Security policies in place with details	Applicable OIL cybersecurity policies will be shared with the successful bidder during design phase, subject to confidentiality and security controls. The bidder shall comply with the tender cybersecurity requirements.

1229	186	6.1 | OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration | Tag capacity shall be 50,000 tags initially. The bidder shall ensure proper design of the OT Data Lake solution to process the above tag volume efficiently, with scalability for future expansion up-to 1,00,000 tags.	Please provide the database size/ volume , we do not see any storage proposed for the Data Historian, considering so many tags and having these tags with attributes, this will be sizeable data, 2. These data will be individual with different OEM's /SI, at dofferent sites, how you plan to maintain the data integrity 3. as per the specificaitons, the data historian to be planned for 10 years, how is the DR planned for this, we do not see any specifications for the same	The OT Data Lake shall support 50,000 initial tags, scalable to 100,000, with ten-year online retention. Source-wise volumes, scan rates, data integrity controls, storage sizing and DR Not required as of now.
1230	186	6.1 | OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration | The OT data lake must be scalable to support future system integrations, addition of KPIs from currently integrated systems, and accommodating growing data volumes as required.	Please clarify how it is done right now, Condition Monitoring; Maintenance Scheduler; Preventive Maintenance; Purchasing, this will help us in integrating the OT data and the KPI's can be designed efficiently	OIL will review and revert.
1231	186	6.1 | OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration | Users for the OT Data Lake	Please provide the details of Concurrent users & Enviornment	OIL will review and revert.
1232	186	6.1 | OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration | Existing Historian /Data Migration	Please provide the Data Size for migration of exsiting historian/models	Two years of historical data shall be migrated where available. Source-wise historian/model sizes, formats and data quality will be assessed during design phase and finalized during design.
1233	187	6.1 | OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration | The bidder shall be responsible for rebuilding of Data Lake from backed up data set in case of any eventuality. Bidder shall be responsible for	Please provide the standards /process OIL is following, what is current mechanism for the data backup & DR in case of eventuality as on date?	OIL will review and revert.

		carrying out regular restoration drill of data and application in coordination with OIL's IT team. The bidder shall also be responsible for preparing backup set for offline backup in cloud or in any other physical location.		
1234	204	6.3 | Develop & Deploy Cloud based CCC Application and mobile app | CCC Platform should be able to connect to operational technologies with bi-directional control via native protocols like OPC UA/DA, BACnet IP, MODBUS TCP, Telemetry protocols etc. via tunnelling software wherever required.	This is not clear as Bi-Directional control - Ie are you planning to control the Operations from the CCC, or the CCC is for condition monitoring and event alerts and Business analytics with KPI's /reports	OIL will review and revert.
1235	204	6.3 | Develop & Deploy Cloud based CCC Application and mobile app | CCC platform should connect to IT Application and network components via IT Data Lake or point-to-point integration with IT protocols via Web-services/APIs/ REST/SOAP and Network protocols via SNMP.	Which all IT applciation are we planning for the same, do you have adaptor /connector currently for the installed application? What all attributes to be fetched from this application?	The IT application inventory is listed in the tender. Available interfaces, connectors, attributes and data mappings will be assessed during design phase and finalized during detailed design.
1236	211	6.3 | 3D Rendering (Should support future integration) | The CCC platform should deliver 3D asset visualization with operational overlays and health indicators; integrate metadata ingestion and 3D streaming APIs	This is not clear as 3D asset visualization within the CCC applciation, which application this refers to, whcih kind of 3D assets you are planning for this, already tehre is a middleware specification provided under different section, this will be overkill for the solution as specifcations are contradictory to each other,please clarify	Phase-1 shall provide 2D/GIS and basic 3D asset visualization with operational overlays and health indicators, together with APIs for future expansion. Detailed models and implementation approach will be finalized during design.
1237	213	6.3 | No-Code New Well, Asset, and KPI Addition | Provide a no-code configuration interface with guided wizards, drag-drop entity design, and template libraries; support workflow orchestration, dynamic schema management, and	New well comes under asset and OT part, how can this be integrated to this L4 wherein this layer at CCC is for business analytics and KPI dashboards....we could not understand this specifications, please clarify	OIL will review and revert.

		scalable system design; store configurations and templates in a storage.		
1238	209	6.3 | Field Mobile App | User Capacity: The mobile application shall support a minimum of 75 concurrent users. The mobile application shall be scalable to accommodate additional users as the field workforce grows.	Do you have any current VPN /system for connecting to centralizaed data/accessing through secure site? As this platform will convergence of OT & IT data whicha re critical to organization, without VPN or secure connectivity this will not be feasible,	OIL will review and revert.
1239	208	6.3 | Field Mobile App | Delivers real-time notifications via multiple channels, including email, phone, and messaging platforms (e.g., WhatsApp).	Does OIL have SMS server/ subscription for sending SMS/ whatsapp subscription for the same, if yes, provide details , if not, than whose scope this will be	WhatsApp business account will be provisioned by OIL. Recurring cost to be factored by bidder.
1240	Page 113 of 343	II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components A2.6	We request you kindly consider HDR10 Video technology. As HDR 10 Video technology supports the Stereoscopic 3D Funtion and also fulfill all the Department requirement which is mentioned in Tender. In addition to that HDR 10 + video technology is proprietary solution & proprietary to Single OEM. Which can control the complete Bid. You are kindly requested to please consider HDR 10/ HDR 10+ so maximum OEM Can Participate & department will get the best Techno Commercials proposal for the same. Kindly modify clause as mentioned below: "HDR 10+/HDR 10"	OIL will review and revert.
1241	Page 114 of 343	II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components A2.26	We request you kindly consider HDR10 Video technology. As HDR 10 Video technology supports the Stereoscopic 3D Funtion and also fulfill all the Department requirement which is mentioned in Tender. In addition to that HDR 10 + video technology is proprietary solution & proprietary to Single OEM. Which can control the complete Bid. You are kindly requested to please consider HDR 10/ HDR 10+ so maximum OEM Can Participate & department will get the best Techno	OIL will review and revert.

			Commercials proposal for the same. Kindly modify clause as mentioned below: "Required number of Inputs to achieve Pixel-to-Pixel Resolution in Stereoscopic 3D & HDR10 / HDR10+ and additional 20% spare input ports"	
1242	Page 114 of 343	II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components A2.27	We request you kindly consider HDR10 Video technology. As HDR 10 Video technology supports the Stereoscopic 3D Funtion and also fulfill all the Department requirement which is mentioned in Tender. In addition to that HDR 10 + video technology is proprietary solution & proprietary to Single OEM. Which can control the complete Bid. You are kindly requested to please consider HDR 10/ HDR 10+ so maximum OEM Can Participate & department will get the best Techno Commercials proposal for the same. Kindly modify clause as mentioned below: "Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ / HDR10 and stereoscopic 3D Mode and additional 10% for Spare Output ports"	OIL will review and revert.
1243	Page 114 of 343	II. Video Wall, AV Infrastructure, VC, and other IT Hardware Components A2.29	We request you kindly consider HDR10 Video technology. As HDR 10 Video technology supports the Stereoscopic 3D Funtion and also fulfill all the Department requirement which is mentioned in Tender. In addition to that HDR 10 + video technology is proprietary solution & proprietary to Single OEM. Which can control the complete Bid. You are kindly requested to please consider HDR 10/ HDR 10+ so maximum OEM Can Participate & department will get the best Techno Commercials proposal for the same. Kindly modify clause as mentioned below: "Hot-swappable input and output cards- Frame synchronization: image should be played smoothly, without any stuck, frame loss, tearing or piercing- Should supports HDR10+/HDR10 and Stereoscopic 3D Function- Auto monitoring and fault alarms should be available"	OIL will review and revert.

1244	Page 145 of 343	Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components B 2.5	We request you kindly consider HDR10 Video technology. As HDR 10 Video technology supports the Stereoscopic 3D Funtion and also fulfill all the Department requirement which is mentioned in Tender. In addition to that HDR 10 + video technology is proprietary solution & proprietary to Single OEM. Which can control the complete Bid. You are kindly requested to please consider HDR 10/ HDR 10+ so maximum OEM Can Participate & department will get the best Techno Commercials proposal for the same. Kindly modify clause as mentioned below: "HDR 10+/HDR 10"	OIL will review and revert.
1245	Page 147 of 343	Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components B 2.26	We request you kindly consider HDR10 Video technology. As HDR 10 Video technology supports the Stereoscopic 3D Funtion and also fulfill all the Department requirement which is mentioned in Tender. In addition to that HDR 10 + video technology is proprietary solution & proprietary to Single OEM. Which can control the complete Bid. You are kindly requested to please consider HDR 10/ HDR 10+ so maximum OEM Can Participate & department will get the best Techno Commercials proposal for the same. Kindly modify clause as mentioned below: "Required number of Inputs to achieve Pixel-to-Pixel Resolution in Stereoscopic 3D & HDR10 / HDR10+ and additional 20% spare input ports"	OIL will review and revert.
1246	Page 147 of 343	Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components B 2.27	We request you kindly consider HDR10 Video technology. As HDR 10 Video technology supports the Stereoscopic 3D Funtion and also fulfill all the Department requirement which is mentioned in Tender. In addition to that HDR 10 + video technology is proprietary solution & proprietary to Single OEM. Which can control the complete Bid. You are kindly requested to please consider HDR 10/ HDR 10+ so maximum OEM Can Participate & department will get the best Techno Commercials proposal for the same. Kindly modify clause as mentioned below: "Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ / HDR10 and stereoscopic 3D Mode and additional 10% for Spare Output ports"	OIL will review and revert.

1247	Page 147 of 343	Video Wall, AV Infrastructure, CMS & Collaboration platform and other IT Hardware & Software Components B 2.30	We request you kindly consider HDR10 Video technology. As HDR 10 Video technology supports the Stereoscopic 3D Funtion and also fulfill all the Department requirement which is mentioned in Tender. In addition to that HDR 10 + video technology is proprietary solution & proprietary to Single OEM. Which can control the complete Bid. You are kindly requested to please consider HDR 10/ HDR 10+ so maximum OEM Can Participate & department will get the best Techno Commercials proposal for the same. Kindly modify clause as mentioned below: "Hot-swappable input and output cards- Frame synchronization: image should be played smoothly, without any stuck, frame loss, tearing or piercing- Should supports HDR10+/HDR10 and Stereoscopic 3D Function- Auto monitoring and fault alarms should be available"	OIL will review and revert.
1248	Page 165 of 343	C2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount C 2.6	We request you kindly consider HDR10 Video technology. As HDR 10 Video technology supports the Stereoscopic 3D Funtion and also fulfill all the Department requirement which is mentioned in Tender. In addition to that HDR 10 + video technology is proprietary solution & proprietary to Single OEM. Which can control the complete Bid. You are kindly requested to please consider HDR 10/ HDR 10+ so maximum OEM Can Participate & department will get the best Techno Commercials proposal for the same. Kindly modify clause as mentioned below: "HDR 10+/HDR 10"	OIL will review and revert.
1249	Page 166 of 343	C2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount C 2.27	We request you kindly consider HDR10 Video technology. As HDR 10 Video technology supports the Stereoscopic 3D Funtion and also fulfill all the Department requirement which is mentioned in Tender. In addition to that HDR 10 + video technology is proprietary solution & proprietary to Single OEM. Which can control the complete Bid. You are kindly requested to please consider HDR 10/ HDR 10+ so maximum OEM Can Participate & department will get the best Techno Commercials proposal for the same. Kindly modify clause as mentioned below: "Required number of Inputs to achieve Pixel-to-Pixel Resolution in Stereoscopic 3D & HDR10 / HDR10+ and additional 20% spare input ports"	OIL will review and revert.

1250	Page 166 of 343	C2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount C 2.28	We request you kindly consider HDR10 Video technology. As HDR 10 Video technology supports the Stereoscopic 3D Funtion and also fulfill all the Department requirement which is mentioned in Tender. In addition to that HDR 10 + video technology is proprietary solution & proprietary to Single OEM. Which can control the complete Bid. You are kindly requested to please consider HDR 10/ HDR 10+ so maximum OEM Can Participate & department will get the best Techno Commercials proposal for the same. Kindly modify clause as mentioned below: "Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ / HDR10 and stereoscopic 3D Mode and additional 10% for Spare Output ports"	OIL will review and revert.
1251	Page 166 of 343	C2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount C 2.30	We request you kindly consider HDR10 Video technology. As HDR 10 Video technology supports the Stereoscopic 3D Funtion and also fulfill all the Department requirement which is mentioned in Tender. In addition to that HDR 10 + video technology is proprietary solution & proprietary to Single OEM. Which can control the complete Bid. You are kindly requested to please consider HDR 10/ HDR 10+ so maximum OEM Can Participate & department will get the best Techno Commercials proposal for the same. Kindly modify clause as mentioned below: "Hot-swappable input and output cards- Frame synchronization: image should be played smoothly, without any stuck, frame loss, tearing or piercing- Should supports HDR10+/HDR10 and Stereoscopic 3D Function- Auto monitoring and fault alarms should be available"	OIL will review and revert.
1252	Page 175 of 343	D2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount D2.6	We request you kindly consider HDR10 Video technology. As HDR 10 Video technology supports the Stereoscopic 3D Funtion and also fulfill all the Department requirement which is mentioned in Tender. In addition to that HDR 10 + video technology is proprietary solution & proprietary to Single OEM. Which can control the complete Bid. You are kindly requested to please consider HDR 10/ HDR 10+ so maximum OEM Can Participate & department will get the best Techno Commercials proposal for the same. Kindly modify clause as mentioned below: "HDR 10+/HDR 10"	OIL will review and revert.

1253	Page 176 of 343	D2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount D2.27	We request you kindly consider HDR10 Video technology. As HDR 10 Video technology supports the Stereoscopic 3D Funtion and also fulfill all the Department requirement which is mentioned in Tender. In addition to that HDR 10 + video technology is proprietary solution & proprietary to Single OEM. Which can control the complete Bid. You are kindly requested to please consider HDR 10/ HDR 10+ so maximum OEM Can Participate & department will get the best Techno Commercials proposal for the same. Kindly modify clause as mentioned below: "Required number of Inputs to achieve Pixel-to-Pixel Resolution in Stereoscopic 3D & HDR10 / HDR10+ and additional 20% spare input ports"	OIL will review and revert.
1254	Page 176 of 343	D2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount D2.28	We request you kindly consider HDR10 Video technology. As HDR 10 Video technology supports the Stereoscopic 3D Funtion and also fulfill all the Department requirement which is mentioned in Tender. In addition to that HDR 10 + video technology is proprietary solution & proprietary to Single OEM. Which can control the complete Bid. You are kindly requested to please consider HDR 10/ HDR 10+ so maximum OEM Can Participate & department will get the best Techno Commercials proposal for the same. Kindly modify clause as mentioned below: "Required Outputs to achieve Pixel-to-Pixel Resolution in HDR10+ / HDR10 and stereoscopic 3D Mode and additional 10% for Spare Output ports"	OIL will review and revert.
1255	Page 176 of 343	D2. SITC of 120" Professional Display 24/7 operation with Heavy duty mount D2.30	We request you kindly consider HDR10 Video technology. As HDR 10 Video technology supports the Stereoscopic 3D Funtion and also fulfill all the Department requirement which is mentioned in Tender. In addition to that HDR 10 + video technology is proprietary solution & proprietary to Single OEM. Which can control the complete Bid. You are kindly requested to please consider HDR 10/ HDR 10+ so maximum OEM Can Participate & department will get the best Techno Commercials proposal for the same. Kindly modify clause as mentioned below: "Hot-swappable input and output cards- Frame synchronization: image should be played smoothly, without any stuck, frame loss, tearing or piercing- Should supports HDR10+/HDR10 and Stereoscopic 3D Function- Auto monitoring and fault alarms should be available"	OIL will review and revert.

1256	109 of 112	Clause 5: Technical & Functional Requirements for Control Room Infrastructure | Sub-Clause 5.1.2: Detailed Technical & Functional Requirements | I. Civil, Interior, Electrical & Utilities | A1. SITC of Civil & Interiors including Electrical, Fire Alarm and Suppression, Redundant UPS, PAC/HVAC, Lighting, Automation, Public Address System and Rodent Control system	1. It is observed that the RFP currently does not specify any minimum qualification criteria for the Control Room Interior scope. Given the national significance of this project and the criticality of the Command-and-Control Centre, the absence of specific eligibility parameters may lead to participation from inexperienced vendors or conventional office interior providers, this increases the risk of technical failures, non-compliance, or post-award execution delays. We therefore request you to consider including the following Pre-Qualification requirement for the Control Room Interior scope: 1.1 Being a project of repute this state-of-the-art facility & all its components like ceiling, flooring, control desk, panelling, glass partitions, ceiling light & its luminaries etc. should be treated as a part of one single solution i.e. Control Room interior solutions. Main bidder to submit MAF (Manufacturer's Authorization Form) from Professional Control Room Interior Solution provider along with the technical bid. The main bidder shall associate with a specialized Control Room Interior Solution Provider having experience in designing, manufacturing, and installing a minimum of twenty (20) turnkey control room interiors (including ceiling, flooring, control desks, modular metal partitions/panelling, and lighting). These projects must have been successfully executed prior to the bid release date. Supporting documents such as Work Orders/ Completion Certificates / Client Appreciation Letters must be submitted along with the bid.	No change: to be guided by tender terms
1257	109 of 112	Clause 5: Technical & Functional Requirements for Control Room Infrastructure | Sub-Clause 5.1.2: Detailed Technical & Functional Requirements | I. Civil, Interior, Electrical & Utilities | A1. SITC of Civil & Interiors including Electrical, Fire Alarm and Suppression, Redundant UPS, PAC/HVAC, Lighting, Automation, Public Address System and Rodent Control system	Metal Ceiling:- The False ceiling for CCC (Integrated Command & Control Centre) Rooms must be aesthetically appealing, functionally superior, acoustically sound, ergonomically designed, safe in operations and low in maintenance. Therefore to avoid generic compliances we recommend to add below mentioned technical specifications in the RFP: 1. UL audit certified design feature of Integrated channel in ceiling for quick installation & replaceability of continuous linear light: The ceiling system having integrated inbuilt channel for installation of cove lights and shall permit quick and easy replacement of cove light without using any tools. Replacement to be carried out within 120 Seconds per meter. Valid UL audit certificate to be submitted along with the technical bid. 2- Material: Factory-made acoustic modular metal false ceiling panels shall be powder-coated, comprising perforated and non-perforated panels	No change: to be guided by tender terms

			manufactured through CNC laser cutting, bending, and punching. Panels shall be made of 0.6 mm galvanized metal with approved powder coating finish. The design shall allow integration with acrylic panels, lighting, and building services such as HVAC and fire detection/fighting systems. Panels shall be designed for easy installation and maintenance, maintaining visual aesthetics as per the design consultant's requirements. - In continuation to the above points we recommend to use gypsum ceiling at the peripheral part of the ceiling. Conventional wood, ACP (aluminum composite panel), fabric and wall painting work should be deemed unacceptable in the control room area.	
1258	109 of 112	Clause 5: Technical & Functional Requirements for Control Room Infrastructure | Sub-Clause 5.1.2: Detailed Technical & Functional Requirements | I. Civil, Interior, Electrical & Utilities | A1. SITC of Civil & Interiors including Electrical, Fire Alarm and Suppression, Redundant UPS, PAC/HVAC, Lighting, Automation, Public Address System and Rodent Control system	Raised Access Flooring:- Control rooms require specialized raised access flooring to safely manage heavy cable networks, optimize underfloor cooling, and support continuous, 24/7 heavy equipment operations. To avoid supply of conventional server farm type laminated false flooring, we recommend to use below false flooring specially designed for control room applications. As of now, in this RFP technical specifications for false flooring are not defined properly as per international standards. Therefore we recommend to add below mentioned technical specifications in the RFP. 1- Performance Standard: The complete Raised Access Flooring System shall be tested and certified as per EN 12825 by an internationally accredited laboratory such as SGS. Valid test reports for concentrated load (centre & corner) and uniformly distributed load shall be submitted along with the technical bid. 2- Fire Safety: The Raised Access Flooring shall be Class A as per ASTM E84 (Non-Combustible) as per EN 13501-1. Test reports from UL/Intertek or equivalent shall be submitted along with the technical bid. 3- RoHS Certified/Tested: The Raised Access Flooring System shall be RoHS compliant to ensure restriction of hazardous substances. Valid UL/Intertek or equivalent test reports/certificates shall be submitted along with the technical bid. 4- Operator's Health: The Raised Access Flooring System shall be GREENGUARD Gold Certified as per UL 2818 to ensure low VOC and formaldehyde emissions for healthier indoor air quality. Valid certificate from UL/Intertek shall be submitted along with the technical bid. 5- Installation Standard: The Raised Access Flooring System shall comply with CISCA recommendations for installation and system	OIL will review and revert.

			performance. Valid compliance certificate/declaration shall be submitted along with the technical bid.	
1259	109 of 112	Clause 5: Technical & Functional Requirements for Control Room Infrastructure | Sub-Clause 5.1.2: Detailed Technical & Functional Requirements | I. Civil, Interior, Electrical & Utilities | A1. SITC of Civil & Interiors including Electrical, Fire Alarm and Suppression, Redundant UPS, PAC/HVAC, Lighting, Automation, Public Address System and Rodent Control system	Metal Panelling / Partition: Unlike conventional offices the painting is not recommended in CCC. To ensure the ongetivity & quality of the product and maintenance free facility, to avoid generic compliances and to eliminate unforeseen delays at a later stage it is recommended to use modular metal wall paneling and metal partitions to cover all the exposed walls in the CCC. These features shall be certified from renowned laboratories and valid certificates are to be submitted along with the technical bid. It is recommended to add the below mentioned technical specifications for Wall Finishes instead of painting in the RFP: 1. Tile Perforation:- To achieve acoustics without compromising aesthetics, wall panelling/partition tiles shall have micro-perforations of less than 1.6 mm diameter, with a density of 5000 holes per square foot. The tiles shall maintain a smooth finish on the front fascia. UL audit-certified design and valid certificate shall be submitted with the technical bid. 2. Easy Replacement:- Audit certified feature of Modular wall Panelling/partition tile having secure locking arrangement for equidistant mounting. Locking arrangement enables easy replacement without using any tool within 20 seconds. The feature shall provide easy flexibility of locking all tiles in one column through gravity. Valid UL audit certificate to be submitted along with the technical bid. 3. Load Bearing Capacity:- The wall panelling/partition shall be robust & strong enough to sustain the routine loads/minor impacts of typical control room environment. The wall panelling/partition structure shall have UL audit certified feature of Load bearing capacity of 300 Kgs to hold any display unit on clamp having minimum length of 750mm. Valid UL audit certificate to be submitted along with the technical bid.tiles. The tile shall have 5000 holes per square feet on front side of the tile. Valid UL audit certificate to be submitted along with the technical bid.	No change: to be guided by tender terms

1260	109 of 112	Clause 5: Technical & Functional Requirements for Control Room Infrastructure | Sub-Clause 5.1.2: Detailed Technical & Functional Requirements | I. Civil, Interior, Electrical & Utilities | A1. SITC of Civil & Interiors including Electrical, Fire Alarm and Suppression, Redundant UPS, PAC/HVAC, Lighting, Automation, Public Address System and Rodent Control system	Control Desk Console:- The control desks are critical to the mission and must be designed in accordance with international ergonomic norms, ISO 11064, so to avoid generic compliances; it is recommended that the defined quality parameter such as test reports documents, certifications, either mentioned in the BOQ or technical set of specifications, must be asked to be submitted along with the bid. 1. Operator's Health:- The entire Control Desk must be Greenguard gold certified. Valid certification (from UL/Intertek) to be submitted along with the bid. 2. Quality & Durability:- Structure shall be made of heavy-duty extruded vertical and horizontal aluminium profiles. The extrusions shall be duly powder coated with 40+ microns over all surfaces. All sheet metal parts shall be finished with a durable, black, electrostatic powder coating. OEM shall have a valid trademark registration certificate issued by the Government of India for the Control Desk proposed in this tender. Valid Trademark registration certificate to be submitted along with the technical bid. To allow future extension and expansion, a weld free system shall be proposed. Interconnecting joints shall not be visible. The structure shall be rigid enough to withstand BIFMA X5.5 tests. The structure shall allow easy assembly of hinged shutters, slat wall, gland plate, and monitor arms in extremely rigid manner. Valid certificate of BIFMA X5.5 from authorized agencies to be submitted along with technical bid. 3. Maintainability Feature:- The front edge of Control Desk is the component which comes in frequent contact of the operator. The soft polyurethane edge is meant to prevent injury (accidental impact) to operator during emergency and it also reduces the contact stress. In case of damage to this edge the desk design shall permit quick & easy replacement within half an hour without taking any shutdowns or removal of the tabletops. Audit certified design feature of modular PU Edge: High-density poly-urethane moulded on industrial grade aluminium core to form 50mm deep tapered edge to be installed on worktop. In case of damage or wear, the edge shall be mechanically replaceable within 30 minutes without opening or removing the worktop. Valid UL audit certificate to be submitted along with the technical bid. Extruded PU edging/PVC T-beading shall be deemed unacceptable. 4. Environmental Product:- The EPD (Environmental product declaration) of control room console shall be	No change: to be guided by tender terms

			verified in accordance with ISO 14025 (from UL/Intertek) for Impacts on Environment by control room console. Valid report/document from UL/Intertek to be submitted along with technical bid. 5. Table-top: - The material of the working surface shall be minimum 25 mm thick MDF with High Pressure laminate. The proposed console's life cycle should be assessed (from approved LCA consultant) for environmental impacts associated with all the stages of a product's life for cradle to grave analysis. Valid report/document from UL/Intertek to be submitted along with technical bid. 6. Furniture Sustainability Standard:- The proposed control desk shall be ANSI/BIFMA e3-2019 certified/tested at least for level 3 from UL/Intertek as per Furniture Sustainability Standard to identify the sustainability level of the furniture with respect to the environmental, health & wellness, and social impacts applicable to product(s). Valid certificate to be submitted along with the technical bid. 7. Quick & Easy Maintenance:- The Control Desk shall feature ergonomic display mounting arms. It shall enable quick & easy replacement of VESA mounts & arm extensions as per the ergonomic. UL audit certified design feature of monitor arm assembly shall have auto lock, push & remove feature for quick release of VESA mounts and modular arm extensions for ease in maintenance and fixing of monitor by one technician within 30 seconds without using any tools. Valid UL audit certificates to be submitted along with the technical bid. 8. Shutters & Side Leg:- Front, and back shutters shall be of 18 mm Laminated MDF Board with premium finish. Side leg shall be of 25mm of the same finish. 9. Slat Wall: - Slat wall shall be made of approximately 2mm thick extruded aluminium (aluminium alloy). The proposed Control Desk shall be UL Listed and valid certificate to be submitted along with the technical bid.	
1261	113	A2.19 | Certifications | BIS and Low Blue light / Eye Comfort Certifications	Request you to please remove "Low Blue light / Eye Comfort Certifications" Justification: COB technology LED walls minimises eye fatigue issues as a inherent feature of the technology.	OIL will review and revert

1262	113	A2.20 | Curve | Supplier to provide special cabinets (Aluminium Diecast) which can accommodate an angle of 0~2.5 Degrees between each module to meet the curve requirement. The curve shall be as per the drawing provided.	Request you to please amend this as "Supplier to provide cabinets (Aluminium Diecast) which can accommodate an angle of 0~2.5 Degrees between each cabinet to meet the curve requirement." Justification: Angle between cabinets ensure better flatness and alignment of the overall display.	OIL will review and revert.
1263	134	A12.2 | Screen Size | 85 inches	Request you to please amend size as 85±2% Justification: Allowing a ±2% tolerance provides flexibility for standard available display sizes while maintaining the intended display size and application requirements.	OIL will review and revert.
1264	134	A12.8 | Connectivity | HDMI Ports: Minimum 2 HDMI 2.0 ports USB Ports: Minimum 2 USB 3.0 ports DisplayPort: Minimum 1 DisplayPort 1.2 LAN Port: 1 RJ45 Ethernet port Wireless Connectivity: Built-in Wifi and Bluetooth	Request you to please amend as: HDMI2.0 /DP port: Min 3 ports USB Port: Min 2 USB 3.0 ports LAN Ports: 1 RJ45 Ethernet port Wireless Connectivity: Built-in Wifi and Bluetooth Justification: The proposed amendment provides flexibility in the combination of HDMI 2.0 and DisplayPort interfaces while maintaining a minimum of three digital video input ports.	OIL will review and revert.
1265	145	B2.19 | Certifications | BIS and Low Blue light / Eye Comfort Certifications	Request you to please remove "Low Blue light / Eye Comfort Certifications" Justification: COB technology LED walls minimises eye fatigue issues as a inherent feature of the technology	OIL will review and revert
1266	145	B2.20 | Curve | Supplier to provide special cabinets (Aluminium Diecast) which can accommodate an angle of 0~2.5 Degrees between each module to meet the curve requirement.	Request you to please amend this as "Supplier to provide cabinets (Aluminium Diecast) which can accommodate an angle of 0~2.5 Degrees between each cabinet to meet the curve requirement." Justification: Angle between cabinets ensure better flatness and alignment of the overall display.	OIL will review and revert.

1267	157	B8.2 | Screen Size | 85 inches	Request you to please amend size as 85±2% Justification: Allowing a ±2% tolerance provides flexibility for standard available display sizes while maintaining the intended display size and application requirements.	OIL will review and revert.
1268	158	B8.8 | Connectivity | - HDMI Ports: Minimum 2 HDMI 2.0 ports - USB Ports: Minimum 2 USB 3.0 ports - DisplayPort: Minimum 1 DisplayPort 1.2 - LAN Port: 1 RJ45 Ethernet port Wireless Connectivity: Built-in Wi-Fi and Bluetooth	Request you to please amend as: HDMI2.0 /DP port: Min 3 ports USB Port: Min 2 USB 3.0 ports LAN Ports: 1 RJ45 Ethernet port Wireless Connectivity: Built-in Wifi and Bluetooth Justification: The proposed amendment provides flexibility in the combination of HDMI 2.0 and DisplayPort interfaces while maintaining a minimum of three digital video input ports.	OIL will review and revert.
1269	164	C2.20 | Certifications | BIS and Low Blue light / Eye Comfort Certifications	Request you to please remove "Low Blue light / Eye Comfort Certifications" Justification: COB technology LED walls minimises eye fatigue issues as a inherent feature of the technology	OIL will review and revert
1270	165	C2.21 | Curve | Supplier to provide special cabinets (Aluminium Diecast) which can accommodate an angle of 0~2.5 Degrees between each module.	Request you to please amend this as "Supplier to provide cabinets (Aluminium Diecast) which can accommodate an angle of 0~2.5 Degrees between each cabinet to meet the curve requirement." Justification: Angle between cabinets ensure better flatness and alignment of the overall display.	OIL will review and revert.
1271	175	D2.20 | Certifications | BIS and Low Blue light / Eye Comfort Certifications	Request you to please remove "Low Blue light / Eye Comfort Certifications" Justification: COB technology LED walls minimises eye fatigue issues as a inherent feature of the technology	OIL will review and revert

1272	175	D2.21 | Curve | Supplier to provide special cabinets (Aluminium Diecast) which can accommodate an angle of 0~2.5 Degrees between each module.	Request you to please amend this as "Supplier to provide cabinets (Aluminium Diecast) which can accommodate an angle of 0~2.5 Degrees between each cabinet to meet the curve requirement." Justification: Angle between cabinets ensure better flatness and alignment of the overall display.	OIL will review and revert.
1273	195	Part-4, Sec-II, Cl 6.1(aa), pg 185 vs. Historian spec, pg 194 | Cl 6.1(aa): "Tag capacity shall be 50,000 tags initially... scalability for future expansion up-to 1,00,000 tags." Separately (pg 195): "The system shall be capable of handling collection and storage of data from up to two million OT data streams, tags, or points."	The RFP specifies an initial capacity of 50,000 tags, scalable to 100,000 tags, while another section requires the system to support up to 2 million OT data streams/tags/points. Kindly clarify the expected capacity for Phase 1 and whether 2 million represents future architectural scalability or an immediate sizing requirement.	The OT Data Lake shall be designed for 50K tags and shall be scalable up to 100K tags.
1274	184	Part-4, Sec-II, Cl 6.1 (general scope) | Section 6.1 describes OT Data Lake setup and OT/IoT system integration scope but does not enumerate a site-wise/system-wise tag inventory.	Kindly provide the current OT tag inventory by site, DCS/SCADA system, OEM, tag type, acquisition frequency and data volume, along with expected annual growth.	The bid-stage baseline shall be 50,000 initial tags, scalable to 100,000 tags. Detailed site-wise inventory, source systems, OEMs, tag types, acquisition frequencies, data volumes and growth assumptions shall be validated during Blueprint/Detailed Design.
1275	184	Part-4, Sec-II, Cl 6.1 (general scope) | Section 6.1 requires OT Data Lake setup and integration but does not describe any existing historian/archive system already deployed at OIL's sites.	Kindly provide details of existing historians/data archives at each OT site, including product, version, storage volume, retention period and available interfaces/APIs. Please clarify whether the proposed OT Data Lake is expected to replace, coexist with, or consume data from the existing historians.	OIL will review and revert.
1276	193	Part-4, Sec-II, Cl 6.1, pg 192 | Protocol list specified: OPC-DA, OPC-HDA, OPC-A&E, OPC-UA, MODBUS TCP/IP, IEC 61850, IEC 60870-5-104, DNP3, RDBMS, BACnet, MQTT and SNMP.	Kindly clarify whether existing protocol gateways/interfaces will be provided by OIL or whether the bidder must supply and license all required gateways/connectors.	OIL will review and revert.

1277	186	Part-4, Sec-II, Cl 6.1(t), pg 185 | Cl 6.1(t): "Enablement of existing OT systems for OPC UA or equivalent standard [protocols]..." is listed within scope without specifying the OIL/bidder responsibility split.	The RFP states that enablement of existing OT systems for OPC-UA or equivalent protocols will be provided by OIL. Kindly clarify the responsibility split between OIL and bidder for OPC-UA server licensing, configuration, tag exposure, certificates, hardening and testing.	OIL will review and revert.
1278	219	Part-4, Sec-II, Section 8 (Cyber security), pg 219 | Section 8 sets out cybersecurity policy/governance requirements (ISA/IEC 62443, NCIIPC, ISO/IEC 27001, NIST) but does not include OIL's existing OT network topology.	Kindly provide the current high-level OT network architecture covering OT zones, DMZs, firewalls, data gateways/data diodes, remote sites and connectivity between OT, IT and CCC.	OIL will review and revert.
1279	185-186	Part-4, Sec-II, Cl 6.1, pg 185-186 | RFP requires acquisition "at source frequency" with configurable periodic/exception-based acquisition, without quantifying tag-frequency distribution or peak load.	Kindly provide the expected distribution of tags by acquisition frequency and the expected peak ingestion rate/points per second.	Bid-stage sizing shall consider the tender baseline of 50,000 initial tags, scalable to 100,000 tags, and acquisition at source frequency. Tag-frequency distribution and peak ingestion characteristics shall be validated during Blueprint/Detailed Design.
1280	193	Part-4, Sec-II, Cl 6.1(q)-(r), pg 193 | Cl (q): minimum 30-day buffering on archive-connectivity failure, auto-pushed once restored. Cl (r): 1-hour fallback refresh frequency during CCC–OT Data Lake connectivity interruption.	The RFP requires minimum 30-day buffering during archive connectivity failure and one-hour fallback synchronization during CCC/Data Lake connectivity interruption. Kindly clarify whether the 30-day buffer is required at each source/interface location or centrally.	OIL will review and revert
1281	185 / 194	Part-4, Sec-II, Cl 6.1(y), pg 185 & pg 194(dd) | Cl (y): "OT Data Lake shall retain all historical operational data for a minimum period of 10 years, with secure archival, retrieval and compliance-aligned storage." Similar 10-year online retrieval requirement repeated at pg 194.	The RFP requires minimum 10 years of historical operational data. Kindly clarify whether all raw/high-frequency data must remain online for 10 years or whether tiered storage/archival is acceptable, provided retrieval requirements are met.	A minimum of ten years of operational data shall remain available for secure retrieval. The bidder may propose an appropriate online and tiered archival architecture, provided the tendered retention, retrieval, performance, security and compliance requirements are fully met.

1282	185	Part-4, Sec-II, Cl 6.1(ee), pg 185 | Cl (ee): bidder to migrate minimum 2 years of historical data (wherever available) from all integrated OT/IoT systems, including time-series, events/alerts, SCADA logs.	The RFP requires migration of minimum two years of historical OT/IoT data wherever available. Kindly provide the source-wise historical data volumes, formats, availability and quality for migration.	A minimum of two years of historical data, wherever available, shall be migrated. Source-wise volumes, formats, availability, quality and extraction methods shall be assessed during Blueprint/Detailed Design.
1283	186	Part-4, Sec-II, Cl 6.1(x), pg 185 | Cl (x): "Bidder shall provide data contextualization and aggregation within the OT Data Lake as per requirements to enable standardized and meaningful representation of operational data," without referencing an existing asset/tag model.	Kindly clarify whether OIL has an existing asset hierarchy, asset model, tag naming convention, engineering-unit standard and contextual metadata model, or whether these need to be designed and implemented by the bidder.	The bidder shall design and implement the required asset hierarchy, tag mapping, naming conventions, engineering-unit standardization and contextual metadata model in consultation with OIL. Existing models and master data, wherever available, will be shared during Blueprint/Detailed Design.
1284	186	Part-4, Sec-II, Cl 6.1(w), pg 185 | Cl (w) references "data quality monitoring, validation" as a basic OT Data Lake visualization feature, without defining specific quality rules or acceptance thresholds.	Kindly provide the expected data-quality rules and acceptance criteria for missing values, stale values, bad-quality flags, duplicate data, out-of-order timestamps, invalid engineering units and sensor failures.	Detailed data-quality rules and thresholds shall be finalized during Blueprint/Detailed Design. The solution shall provide configurable monitoring and validation for missing, stale, duplicate, out-of-sequence and bad-quality data, invalid engineering units and other agreed quality conditions.
1285	219	Part-4, Sec-II, Section 8 (Cyber security), pg 219 | Section 8 requires alignment with ISA/IEC 62443, NCIIPC Guidelines, ISO/IEC 27001:2013 and NIST CSF but does not include OIL's approved reference architecture for OT-to-Data Lake connectivity.	Kindly provide OIL's approved reference architecture and security requirements for OT-to-Data Lake connectivity, including segmentation, firewall policies, approved communication paths, authentication and certificate requirements.	OIL will review and revert.
1286	219	Part-4, Sec-II, Section 8 (Cyber security), pg 219 | Section 8 sets overall cybersecurity obligations on the bidder but does not delineate a responsibility matrix against OIL's own infrastructure/network team.	Kindly clarify the responsibility matrix between OIL and bidder for firewall configuration, endpoint hardening, OPC gateway hardening, vulnerability remediation, certificates and security monitoring.	OIL will facilitate required approvals and changes on OIL-managed network and security infrastructure.

1287	185	Part-4, Sec-II, Cl 6.1(dd), pg 185 | Cl (dd): "The overall OT Data Lake solution shall adhere to an uptime KPI of 99.95%," without defining the calculation methodology or exclusions.	The RFP specifies 99.95% uptime for the OT Data Lake. Kindly clarify the calculation methodology, including treatment of planned maintenance, OIL infrastructure/network downtime and source-system downtime.	OIL will review and revert.
1288	201	Part-4, Sec-II, Cl 6.2, pg 201 | Cl 6.2(b): "Bidder shall set up the IT middleware & Business Data Lake to integrate data from OIL's enterprise, IT, and departmental specific applications," without listing the specific applications.	Kindly provide the complete Phase-1 inventory of enterprise, IT and departmental applications to be integrated, including application name, technology/version, database, deployment model, APIs/interfaces and expected refresh frequency.	The Phase-1 application inventory, technologies, interfaces, refresh frequencies and data scope shall be validated during Blueprint/Detailed Design.
1289	201	Part-4, Sec-II, Cl 6.2(g), pg 201 | Cl 6.2(g): "Business Data Lake shall store structured and unstructured data, provide analytics-ready datasets..." without quantifying expected volumes.	Kindly provide current and projected data volumes for each IT source, covering structured, semi-structured, unstructured, multimedia, time-series and historical data.	Source-wise current and projected volumes for structured, semi-structured, unstructured, multimedia, time-series and historical data shall be assessed during Blueprint/Detailed Design.
1290	201	Part-4, Sec-II, Cl 6.2(f), pg 201 | Cl 6.2(f): "Any required connectors, adaptors, or integration modules for SAP-HANA shall be procured, licensed, and provisioned by the bidder as part of the solution."	The RFP states that required SAP-HANA connectors/adaptors are to be procured and licensed by the bidder. Kindly clarify the exact SAP S/4HANA modules, business objects/tables, APIs/OData services, extraction frequency and historical data scope required for Phase 1.	OIL will review and revert.
1291	103-104 / 202	Part-4, Sec-II, Cl 4.19 (pg 103-104) & Cl 6.2(f) (pg 202) | Cl 4.19: bidder to comply with OIL's IT & Cloud policies "including adherence to SSO, RBAC, data encryption... and OSDU where applicable." Cl 6.2 sub-item (f): platform to be "OSDU-compliant for subsurface data in oil & gas," without specifying scope/version/existing environment.	The RFP requires OSDU compliance for subsurface data. Kindly clarify the OSDU scope, target OSDU version, datasets to be onboarded and whether OIL already has an existing OSDU environment/platform.	OIL will review and revert.

1292	201 / 241 / 330	Part-4, Sec-II, Cl 6.2, pg 201 & Part-4, Sec-II pg 241/330 (Azure Landing Zone refs) | Section 6.2 does not mandate a specific cloud technology stack; separately, other sections reference OIL's "Azure Landing Zone subscription" for connectivity (pg 241, 330), suggesting an existing Azure environment.	Kindly clarify whether OIL expects the IT/Business Data Lake to be deployed using the existing Azure landing zone and whether specific Microsoft technologies such as Azure Data Lake Storage, Data Factory, Databricks, Microsoft Fabric or equivalent are mandated/preferred.	OIL will review and revert.
1293	202	Part-4, Sec-II, Cl 6.2(m), pg ~202 | Cl 6.2(m): "The bidder shall migrate a minimum of two (2) years of historical data (wherever available)..." mirroring the OT-side migration requirement, without defining exact dataset scope.	The RFP requires minimum two years of historical IT/OT data migration. Kindly clarify whether this includes all historical data available in each source system or only datasets identified during detailed engineering.	OIL will review and revert.
1294	184 / 201	Part-4, Sec-II, Cl 6.1 (pg 184) & Cl 6.2 (pg 201) | OT Data Lake (6.1) and IT Middleware/Business Data Lake (6.2) are described as distinct sub-sections/deliverables, with OT data required to remain on-premises (Cl 4.5) while CCC application/middleware/data lake are cloud-hosted.	Kindly clarify whether OIL expects physically/logically separate IT and OT Data Lakes throughout the solution, or whether a common data platform/lakehouse with strict IT/OT security segregation is acceptable.	The OT Data Lake shall be deployed on-premises at FHQ Duliajan, while the IT/Business Data Lake and CCC application shall be cloud-hosted as specified in the tender. They shall remain logically and security-segregated.
1295	103 / 184-204	Part-4, Sec-II, Cl 4.9, 4.12-4.13 (pg 103) & Cl 6.1-6.2 (pg 184-204) | Cl 4.12-4.13 require integration across SCADA/PLC/DCS, SAP, HSE Portal, CCTV etc. for "real-time and historical monitoring," but the specific data flows between the OT Data Lake, IT Data Lake and CCC application are not mapped.	Kindly provide the expected data flows between the IT Data Lake, OT Data Lake and CCC. Specifically, which OT data is expected to be exposed to IT analytics and which IT/business data is expected to be combined with OT data for CCC use cases?	OIL will review and revert.
1296	185 / 201	Part-4, Sec-II, Cl 6.1(x), 6.2(h) (pg 185, 201) | Both Cl 6.1(x) (OT contextualization) and Cl 6.2(h) (IT contextualization/standardization) require contextualization independently, without identifying a common cross-domain master-data owner for shared entities like asset, well, or location.	For common entities such as asset, equipment, well, location, organization and tag, kindly identify the system of record and clarify whether the bidder is responsible for creating the common master-data/contextualization layer.	Systems of record for common entities shall be identified during Blueprint/Detailed Design. The bidder shall create the required common contextualization and mapping layer using OIL-approved master data, without replacing authoritative source systems unless expressly approved.

1297	104 / 185	Part-4, Sec-II, Cl 6.1(bb) (pg 185) & Cl 4.22 (pg 104) | Cl 6.1(bb): OT Data Lake "must be scalable to support future system integrations, addition of KPIs... and accommodating growing data volumes." Cl 4.22: platform to be "scalable and modular... without major architectural changes." Neither clause states whether such future work falls within the fixed AMC scope or is a chargeable change request.	The RFP requires the solution to support addition of future IT/OT systems and growing data volumes. Kindly clarify whether future source-system integrations, additional tags, KPIs and dashboards during the AMC period are included in the base contract or will be treated as change requests.	OIL will review and revert.
1298	116-117	A4 Pages 116-117	With reference to A4 (Pages 116–117), we would like to highlight a few points in the specifications of the KVM transmitters and receivers. The current specifications do not appear to fully address the requirements of deploying such a large and high-resolution 3D LED wall. Stereoscopic / 3D Functionality: The stereoscopic functionality is currently mentioned only for the KVM receivers. However, the transmitters should also support and capture Stereo 3D information. If the transmitter does not capture and transmit the stereo information, the receiver and ultimately the 3D LED wall will not receive the required 3D data. Resolution and Refresh Rate: For both transmitters and receivers, the specified maximum resolution is currently 3840 × 2160 @ 60Hz. For proper Active 3D applications, a 120Hz signal is generally required. Therefore, we request that the specification be amended to 3840 × 2160 @ 120Hz or higher. Synchronization / Frame Locking: Considering the very large LED wall resolution, it is evident that approximately 9–10 sets of transmitters and receivers may be required, with each set supporting up to 3840 × 2160 @ 120Hz. Since the overall image will be divided across multiple transmitter/receiver sets, it is extremely important that all these devices remain synchronized. Without proper hard-wired synchronization or frame locking between the devices, the 3D content across the complete LED wall may not remain in sync, which can seriously affect the 3D viewing experience. Hence, we request that the KVM transmitters and receivers, similar to the LED controllers, be specified with dedicated synchronization/frame-lock ports to allow all units to be synchronized with each other. We request you to kindly review and amend the specifications accordingly so that the system is technically suitable for the	Where stereoscopic 3D content is routed through the IP-KVM system, the applicable KVM transmitters/ encoders and receivers/ decoders shall preserve and transport the required video signal, stereo information and associated synchronization without material degradation or loss of functionality.

			proposed large-format, high-resolution Active 3D LED wall.	
1299	31	3.2 EXPERIENCE CRITERIA/A | A. The bidder must have successfully executed/completed "Command & Control Centre Infrastructure Works, which includes supply, installation, integration and commissioning of Command & Control / Integrated Command Centre / War Room facilities including control room civil & interior fit-out, video-wall(s), operator consoles, AV/VC systems and associated utilities" over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals as under: a. One (01) completed above work having executed value not less than INR 42,39,72,000.00. OR b. Two (02) completed above works each having executed value not less than INR 26,49,82,000.00. OR c. Three (03) completed above works each having executed value not less INR 21,19,86,000.00.	We kindly request that experience eligibility be considered based on the date of project completion/Go-Live. The execution of many projects fell during the COVID-19 pandemic years, which resulted in unavoidable delays in the Supply, Installation, Testing, and Commissioning (SITC) activities. These delays were largely due to circumstances beyond the control of the executing organizations. Therefore, considering experience from the actual date of project completion/Go-Live would provide a fair and accurate assessment of a bidder's relevant experience and project delivery capabilities. Furthermore, the requirement that past experience must be limited to specific sectors such as Oil & Gas, Petrochemicals, Power, Utilities, and Metals significantly restricts participation from several competent and experienced bidders. Many organizations possess the technical expertise, resources, and proven track record to successfully execute projects of similar scope and complexity across other industries for Govt/PSU. Broadening the eligibility criteria to include comparable project experience from related sectors would encourage wider participation, enhance competition, and enable the selection of the most capable solution provider while maintaining the project's technical requirements and quality standards.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
1300	31	3.2 EXPERIENCE CRITERIA/B | B. The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,97,99,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals: OT Data Acquisition & Industrial Data Ingestion:	We request the exclusion of this experience requirement, as it significantly limits bidder participation. The specified experience criteria are very restrictive and exclude many capable and qualified organizations with relevant expertise and proven project execution experience. Relaxing this requirement would provide a fair opportunity for a wider pool of potential bidders to participate, thereby promoting healthy competition and ensuring better value for the project.	OIL will review and revert on Experience criteria.

		Consumption of both real-time and historical OT/industrial data from OPC UA, OPC DA, OPC HDA, or equivalent industrial data gateways or servers provisioned by the respective OT systems, followed by ingestion of this data into a centralized OT data lake, historian, time-series database, or operational data platform, along with asset-wise data modelling encompassing tag mapping, contextualisation.		
1301	32	3.2 EXPERIENCE CRITERIA/C | C. The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,49,88,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals /Power / Utilities / Metals: Enterprise IT & Middleware Integration: The scope covers the design and deployment of IT middleware, enterprise integration platforms, APIs, or ESB (Enterprise Service Hub) solutions to enable seamless integration of enterprise and departmental IT systems—such as ERP, EAM, HSE, GIS, monitoring, and other business applications—along with the establishment of real-time and batch data pipelines for ingestion into centralized IT or business data lakes and analytics platforms.	The requirement that past experience must be limited to specific sectors such as Oil & Gas, Petrochemicals, Power, Utilities, and Metals significantly restricts participation from several competent and experienced bidders. Many organizations possess the technical expertise, resources, and proven track record to successfully execute projects of similar scope and complexity across other industries for Govt/PSU. Broadening the eligibility criteria to include comparable project experience from related sectors would encourage wider participation, enhance competition, and enable the selection of the most capable solution provider while maintaining the project's technical requirements and quality standards	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
1302	32	3.2 EXPERIENCE CRITERIA/D | D. The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 37,50,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power /Utilities / Metals: Command & Control Applications, Dashboards & Decision	The requirement that past experience must be limited to specific sectors such as Oil & Gas, Petrochemicals, Power, Utilities, and Metals significantly restricts participation from several competent and experienced bidders. Many organizations possess the technical expertise, resources, and proven track record to successfully execute projects of similar scope and complexity across other industries for Govt/PSU. Broadening the eligibility criteria to include comparable project experience from related sectors would encourage wider participation, enhance competition,	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.

		Support : Delivered an application / dashboard for a Command & Control Centre / Centralised Visualisation Dashboard covering interactive dashboards, real-time analytics, configurable alerts/alarms and automated workflows.	and enable the selection of the most capable solution provider while maintaining the project's technical requirements and quality standards	
1303	31-32	BEC 3.2(A)	The bidder must have successfully executed/completed "Command & Control Centre Infrastructure Works, which includes supply, installation, integration and commissioning of Command & Control / Integrated Command Centre / War Room facilities including control-room civil & interior fit-out, video-wall(s), operator consoles, AV/VC systems and associated utilities" over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals as under: a. One (01) completed above work having executed value not less than INR 42,39,72,000.00. OR b. Two (02) completed above works each having executed value not less than INR 26,49,82,000.00. OR c. Three (03) completed above works each having executed value not less INR 21,19,86,000.00. Will require clarification that if a bidder is executing such a project with Public Sector Units (PSU) / State Government is also deemed qualified as per this technical criterion.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
1304	31-32	BEC 3.2(B)	The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,97,99,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals: OT Data Acquisition & Industrial Data Ingestion: Consumption of both real-time and historical OT/industrial data from OPC UA, OPC DA, OPC HDA, or equivalent industrial data gateways or servers provisioned by the respective OT systems, followed by ingestion of this data into a centralized OT data lake, historian, time-series database, or operational data platform, along with asset-wise data modelling encompassing tag mapping, contextualisation.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.

			Will require clarification that if a bidder is executing such a project with Public Sector Units (PSU) / State Government is also deemed qualified as per this technical criterion.	
1305	31-32	BEC 3.2(C)	The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,49,88,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals. Will require clarification that if a bidder is executing such a project with Public Sector Units (PSU) / State Government is also deemed qualified as per this technical criterion.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
1306	31-32	BEC 3.2(D)	The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 37,50,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals: Command & Control Applications, Dashboards & Decision Support: Delivered an application / dashboard for a Command & Control Centre / Centralized Visualization Dashboard covering interactive dashboards, real-time analytics, configurable alerts / alarms and automated workflows. Will require clarification that if a bidder is executing such a project with Public Sector Units (PSU) / State Government is also deemed qualified as per this technical criterion.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
1307	Pg No-31 of 343	Clause No-3.0 Technical Evaluation Criteria	Request to kindly Amend for Wider Particpation 3.2 EXPERIENCE CRITERIA: Bidders should meet all the following experience criteria (A/B/ C &D): A. The bidder must have successfully executed/completed “Command & Control Centre Infrastructure Works, which includes supply, installation, integration and commissioning of Command & Control / Integrated Command Centre / War Room facilities including control-room civil & interior fit-out, video-wall(s), operator consoles, AV/VC systems and associated utilities” over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals	OIL will review and revert.

			/ Power / Utilities / Metal/Govt as under: a. One (01) completed above work having executed value not less than INR 42,39,72,000.00. OR b. Two (02) completed above works each having executed value not less than INR 26,49,82,000.00. OR c. Three (03) completed above works each having executed value not less INR 21,19,86,000.00. AND OR B. The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,97,99,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals/Govt : OT Data Acquisition & Industrial Data Ingestion: Consumption of both real-time and historical OT/industrial data from OPC UA, OPC DA, OPC HDA, or equivalent industrial data gateways or servers provisioned by the respective OT systems, followed by ingestion of this data into a centralized OT data lake, historian, time-series database, or operational data platform, along with asset-wise data modelling encompassing tag mapping, contextualisation. AND OR C. The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 2,49,88,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals/Govt : Enterprise IT & Middleware Integration: The scope covers the design and deployment of IT middleware, enterprise integration platforms, APIs, or ESB (Enterprise Service Hub) solutions to enable seamless integration of enterprise and departmental IT systems—such as ERP, EAM, HSE, GIS, monitoring, and other business applications—along with the establishment of real-time and batch data pipelines for ingestion into centralized IT or business data lakes and analytics platforms. AND D. The Bidder must have successfully executed/completed at least 01 (One) no. of the following solution against one contract of minimum value of INR 37,50,000.00 over the last 7 (seven) years reckoned from the Original Bid Closing Date in Oil & Gas / Petrochemicals / Power / Utilities / Metals/Govt: Command & Control Applications, Dashboards & Decision Support : Delivered an application / dashboard for a Command & Control Centre / Centralised Visualisation Dashboard covering	

			interactive dashboards, real-time analytics, configurable alerts/alarms and automated workflows	
1308	Pg No-38 of 343	(IV) Bid from Consortuim of Companies	Kindly confirm whether the Experience Criteria specified under Clause 3.2 of the BEC can be fulfilled by either the Lead Bidder or any Consortium Member.	Clarified. It will be calculated collectively as per terms of the tender.
1309	Pg No-261 of 343	Table- B Payment Terms	Request to kindly Amend the Implementation timeline and Payment terms for timely project completion - Completion of mobilization-T0 + 1 Months-5% of Implementation Cost * 2.Blueprint Design and Requirement Finalisation-T0 + 2 Months-5% of Implementation Cost * 3.Infrastructure Setup (Control Room, IT, Civil, Utilities and Interiors Set-up-T0 + 6 Months- 8 Months a.50% 80% of BoQ price (A,B,C,D) against completion delivery on prorata of 3.a) of 'Implementation & Delivery Schedule' for each site b.25% of BoQ price (A,B,C,D) against completion of 3.b) of 'Implementation & Delivery Schedule' for each site 4.OT & IT Data Lake Setup, OT & IT System Integration a.50% 100% of BoQ price (E4) against completion of 4.a) of 'Implementation & Delivery Schedule b.25% 100 %of BoQ price (E2,E4) against completion of 4.b) of 'Implementation & Delivery Schedule c.100% of BoQ price (E3) against completion of 4.c) of 'Implementation & Delivery Schedule' for each OT system integration d.100% of BoQ price (F3) against completion of 4.d) of 'Implementation & Delivery Schedule' for each IT system integration e.100% of BoQ price (E5) against completion of 4.e) of 'Implementation & Delivery Schedule' for each OT system integration f.100% of BoQ price (F6) against completion of 4.f) of 'Implementation & Delivery Schedule' for each IT system integration 5.UAT, Go-live-T1=T0 + 10 12 Months- a.5% of	Pl refer to amended clause, to be published

			Implementation Cost* will be withheld for Hyper Care period; Remaining part of Implementation Cost* to be paid after deduction of liquidated damage, if any 6.Hyper Care Period-T1+4 Months- a.Remaining 5% of Implementation Cost* after successful resolution of all issues identified during the Hypercare period, after deduction of penalty, if any	
1310			Request to Amend - Termination for delay in mobilization: CONTRACTOR is required to mobilize complete equipment alongwith crew for commencement of services at the specified site within the maximum allowed number of days from the date of LOA/Notice for Mobilization as specified in the special conditions of contract. If the CONTRACTOR (successful bidder) fails to complete the mobilization as above, OIL shall have, without prejudice to any other clause of the CONTRACT, the right to terminate the contract. to issue a performance warning or initiate corrective actions	No change: to be guided by tender terms
1311	Pg No-38 of 343	Part C – Other terms and conditions:	Bidder to ensure that the proposed personnel for the project are on bidder's/contract payroll for the last one year at least from the original bid closing date. The bidder shall submit joining letter and payslips/salary proof for last year as a proof for the deployed resources	No change: to be guided by tender terms
1312	Pg No-38 of 343	Clause No-3.3	Request to Amend- a)Documentary evidence such as Degree certificates & CV clearly supporting the above-mentioned educational qualification & experience(s) are to be submitted along with the technical bid. In event of award of order.	No change: to be guided by tender terms
1313	Pg No-81 of 343	Clause No 30.0-TIMELY MOBILIZATION AND LIQUIDATED DAMAGES:	Request to Amend- If the contractor is unable to mobilize/deploy and commence the operation within the period specified in sub clause (a) above, it may request OIL for extension of the time with unconditionally agreeing for levy and recovery of LD. Upon receipt of such a request, OIL may at its discretion, extend the period of mobilization and shall recover from the CONTRACTOR, as an ascertained and agreed Liquidated Damages, a sum equivalent to @	No change: to be guided by tender terms

			0.5% of contract value undelivered portion including mobilization cost, per week or part thereof of delay subject to maximum of 7.5% of the Contract Price	
1314	115-116	A4 - Corporate Office, WTC Delhi	SITC of Command-and-Control Suite – 4K60 IPKVM, Encoders, Operator Consoles and Videowall Decoders with Redundant Videowall Processor The specification does not clearly mention the required bandwidth for transmission of true 4K signals. (3840x2160,60Hz or more, as per tender specification) For 4K @ 60 Hz with 4:4:4 chroma sampling, the uncompressed video bandwidth is approximately 18 Gbps. Accordingly, we request that the encoders and decoders be specified to support at least 20 Gbps video transmission over fibre, to ensure reliable transmission of true 4K signals without compromising image quality. Further, the network switch should be capable of supporting 10 Gbps per port to provide adequate network capacity for the proposed architecture. If the video transmission is limited to 1 Gbps, the 4K signal would require significant compression (approximately 18:1 for an uncompressed 4K60 4:4:4 signal). Such high compression, followed by scaling at the output, may result in loss of image quality, distortion, and degradation of fine visual details. We therefore request that the tender specification be suitably clarified/amended to ensure that the proposed system supports true 4K @ 60 Hz, 4:4:4 transmission with adequate bandwidth, without compromising the required video quality.	The proposed solution shall provide end-to-end 4K UHD pixel-to-pixel visualization with visually lossless image quality and with end-to-end latency not adversely affecting operator usability.

1315	148-149	B4 - FHQ Duliajan	SITC of Command-and-Control Suite – 4K60 IPKVM, Encoders, Operator Consoles and Videowall Decoders with Redundant Videowall Processor The specification does not clearly mention the required bandwidth for transmission of true 4K signals. (3840x2160,60Hz or more, as per tender specification) For 4K @ 60 Hz with 4:4:4 chroma sampling, the uncompressed video bandwidth is approximately 18 Gbps. Accordingly, we request that the encoders and decoders be specified to support at least 20 Gbps video transmission over fibre, to ensure reliable transmission of true 4K signals without compromising image quality. Further, the network switch should be capable of supporting 10 Gbps per port to provide adequate network capacity for the proposed architecture. If the video transmission is limited to 1 Gbps, the 4K signal would require significant compression (approximately 18:1 for an uncompressed 4K60 4:4:4 signal). Such high compression, followed by scaling at the output, may result in loss of image quality, distortion, and degradation of fine visual details. We therefore request that the tender specification be suitably clarified/amended to ensure that the proposed system supports true 4K @ 60 Hz, 4:4:4 transmission with adequate bandwidth, without compromising the required video quality.	The proposed solution shall provide end-to-end 4K UHD pixel-to-pixel visualization with visually lossless image quality and with end-to-end latency not adversely affecting operator usability.
1316	166-167	C3 - RF Jodhpur	SITC of Command-and-Control Suite – 4K60 IPKVM, Encoders, Operator Consoles and Videowall Decoders with Redundant Videowall Processor The specification does not clearly mention the required bandwidth for transmission of true 4K signals. (3840x2160,60Hz or more, as per tender specification) For 4K @ 60 Hz with 4:4:4 chroma sampling, the uncompressed video bandwidth is approximately 18 Gbps. Accordingly, we request that the encoders and decoders be specified to support at least 20 Gbps video transmission over fibre, to ensure reliable transmission of true 4K signals without compromising image quality. Further, the network switch should be capable of	The proposed solution shall provide end-to-end 4K UHD pixel-to-pixel visualization with visually lossless image quality and with end-to-end latency not adversely affecting operator usability.

			supporting 10 Gbps per port to provide adequate network capacity for the proposed architecture. If the video transmission is limited to 1 Gbps, the 4K signal would require significant compression (approximately 18:1 for an uncompressed 4K60 4:4:4 signal). Such high compression, followed by scaling at the output, may result in loss of image quality, distortion, and degradation of fine visual details. We therefore request that the tender specification be suitably clarified/amended to ensure that the proposed system supports true 4K @ 60 Hz, 4:4:4 transmission with adequate bandwidth, without compromising the required video quality.	
1317	177-178	D3 - PHQ Guwahati	SITC of Command-and-Control Suite – 4K60 IPKVM, Encoders, Operator Consoles and Videowall Decoders with Redundant Videowall Processor The specification does not clearly mention the required bandwidth for transmission of true 4K signals. (3840x2160,60Hz or more, as per tender specification) For 4K @ 60 Hz with 4:4:4 chroma sampling, the uncompressed video bandwidth is approximately 18 Gbps. Accordingly, we request that the encoders and decoders be specified to support at least 20 Gbps video transmission over fibre, to ensure reliable transmission of true 4K signals without compromising image quality. Further, the network switch should be capable of supporting 10 Gbps per port to provide adequate network capacity for the proposed architecture. If the video transmission is limited to 1 Gbps, the 4K signal would require significant compression (approximately 18:1 for an uncompressed 4K60 4:4:4 signal). Such high compression, followed by scaling at the output, may result in loss of image quality, distortion, and degradation of fine visual details. We therefore request that the tender specification be suitably clarified/amended to ensure that the proposed system supports true 4K @ 60 Hz, 4:4:4 transmission with adequate bandwidth, without compromising the required video quality.	The proposed solution shall provide end-to-end 4K UHD pixel-to-pixel visualization with visually lossless image quality and with end-to-end latency not adversely affecting operator usability.

1318	42	Part-3, Cl. 4.0 (BEC) – Criterion A | Criterion A restricts qualifying CCC/Integrated Command Centre experience to the Oil & Gas, Petrochemicals, Power, Utilities and Metals sectors.	CCC/War Room/ICC integration is a specialised discipline also executed extensively in Smart City, Defence, Traffic Management and Airport/Port operations sectors. May experience from these sectors also be considered for Criterion A, subject to the same value thresholds? Requested for consideration, given the specialised and transferable nature of CCC integration capability.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
1319	42	Part-3, Cl. 4.0 (BEC) – Criterion B | Criterion B requires experience in "OT Data Acquisition & Industrial Data Ingestion."	Please confirm whether SCADA-to-Historian / Data Historian integration projects that functionally perform OT data acquisition and centralisation qualify under Criterion B, even where the client's own project documentation does not use the specific term "OT Data Lake." Functional equivalence should be assessed on scope, not on terminology used in the client certificate.	OIL will review & revert
1320	38	Part-3, Cl. 3.0 – Consortium provisions | Bidding is permitted via Parent/Subsidiary, JV, or Consortium routes.	The tender combines two materially different capability sets — turnkey civil/interior/AV control-room fit-out, and OT/IT data-platform & application development. Will OIL confirm that a Consortium of a civil/AV-focused contractor and a technology/systems-integration contractor is an acceptable combination, with each member qualifying against its respective scope under Criteria A–D? Would materially widen the credible bidder pool for a technically heterogeneous scope.	Clarified. It will be guided as per existing tender clause.
1321	265	Part-4, Exhibit-I – Sub-contracting undertaking | A specific undertaking format is prescribed for works involving the possibility of sub-contracting.	Please confirm the maximum permissible proportion (by value) of the Implementation scope that may be sub-contracted to a specialist civil/AV/MEP contractor, and whether such a sub-contractor must independently meet any part of the BEC.	Oil will review and revert.
1322	31	Annexure-A1, Cl. 3.1 – MAF | MAF is required from OEMs for 7 listed items (Video Wall Screen, Video Wall Controller, Servers, VC System, UPS, PAC, Fire Alarm & Suppression System).	Given the compressed timeline between Bid Closing (4 Sep) and the need to secure OEM authorisations, will OIL accept MAFs at LOA/contract-signing stage (in lieu of at bid submission), against an OEM in-principle confirmation letter submitted with the bid? Standard industry practice for multi-OEM turnkey tenders with short bid cycles.	OIL will revert

1323	43–44	Part-3, Cl. 4.0 (BEC) – Financial Criteria | For Consortiums, financial thresholds apply per a stated lead-member/other-member split.	Please clarify whether Net Worth and Working Capital criteria must be met by each Consortium member individually, or may be met collectively/cumulatively across all members.	Clarified. It will be guided as per existing tender clause.
1324	3–4	Forwarding Letter, Cl. 3.1 & 3.4 | Two pre-bid query deadlines are specified: 20 Aug (written queries to CGM-Contracts) and 21 Aug (registration + queries for the Pre-Bid Conference).	As the formal written-query deadline (20 Aug) has passed, please confirm that queries submitted today (21 Aug) for the Pre-Bid Conference will receive a written response via corrigendum/addendum, consistent with Clause 3.5. Submitted today, within the Clause 3.1 window, in the interest of a timely response.	Will be considered
1325	68	Part-4 SCC, Cl. 12.3.13 / GST | Bidder must hold GST registration and issue GSTIN-compliant invoices; work spans Delhi, Assam, Rajasthan and Guwahati.	Please confirm whether the bidder must obtain GST registration in each of the four implementation states individually, or whether centralised billing under a single GSTIN (with appropriate place-of-supply treatment) is acceptable.	This will be guided by the GST law.
1326	N/A	General / Commercial | No indicative or ceiling contract value is stated in the RFP (the EMD of INR 2,34,78,000 is the only implicit scale reference).	Will OIL share an indicative estimated contract value or budgetary range for the Total Contract Cost (T = A+B+C+D+E+F), even on a non-binding basis, to aid bid costing? Standard pre-bid request; assists right-sizing of the technical solution and BoQ costing.	No
1327	254	Part-4 Sec-IV, Table A (SOR/BoQ) | BoQ quantities are specified per location (mostly Qty = 1 for infrastructure items), fixed at tender stage.	Since Infrastructure Setup (Milestone 4) is scheduled for T0+6M — after Mobilization and site surveys — please confirm whether BoQ quantities are open to mutually-agreed revision following the site survey, or are frozen at award.	To be guided by quantities as specified in tender;

1328	261	Part-4 Sec-IV, Table B (Payment Terms) | Milestone 3 (Infrastructure Setup) payment is 50%+25% "per site," across 4 locations sharing a common T0+6M timeline.	Please clarify whether Milestone 3 payment is released per-site as each site is individually completed, or only in aggregate once all four sites are complete — and how a delay at one site (e.g., the lighter-scope PHQ Guwahati) affects payment eligibility for sites already completed.	To be guided by payment terms in the tender;
1329	246	Part-4 SCC, Cl. 30.0 – Liquidated Damages | LD of 0.5% of Implementation Cost per week (capped at 7.5%) is specified for delay in final Go-Live.	Please confirm whether any LD or penalty applies to delays at interim milestones (Mobilization, Blueprint, Infrastructure Setup) that do not ultimately delay the final Go-Live date, or whether LD is triggered solely by Go-Live slippage.	OIL shall revert
1330	332	Part-4 Sec-V, Cl. 6.8 & 6.15 – Cloud Hosting | Cl. 6.8 mandates a MEITY-empanelled Cloud Service Provider hosted within India; Cl. 6.15 separately requires the architecture to be "cloud service provider agnostic." OIL's current landscape is stated elsewhere as predominantly Microsoft Azure.	Please confirm (a) the specific list of MEITY-empanelled CSPs acceptable for this project, and (b) whether Azure's India regions qualify under this empanelment, or whether migration away from OIL's existing Azure footprint is required. Directly affects architecture design and cost — recommend priority clarification.	Pl refer to amendments on Cloud Infra;
1331	104, 219–220	Part-4 Sec-II Cl.8 / Abbreviations | OSDU (Open Subsurface Data Universe) compliance is referenced as a standard "where applicable," without defining its boundary.	Please clarify the specific scope/data domains where OSDU compliance is mandatory for this project, as distinct from the general OT/IT data lake requirements.	The solution should be capable to ingest OSDU-compliant data
1332	225	Part-4 Sec-II, Cl. 12 – Manpower Deployment | Minimum Implementation and AMC teams are specified by named role, without stating whether deployment must be on-site/full-time.	Please confirm whether the specified Implementation-team roles must be dedicated full-time on-site at each location, or may operate on a hybrid basis (central base plus periodic site visits), given the geographic spread across four locations.	Bidder shall be required to comply to provisions as specified in the tender

1333	102–104	Part-4 Sec-II, Cl. 3 – Current State | Existing SCADA/DCS/IoT systems are described as operating in silos across FHQ, PHQ and RF.	For each existing OT system listed (e.g., MCS SCADA, Tank Farm DCS, Pipeline SCADA), please confirm whether existing OPC servers/gateways or historian licenses may be reused/integrated, or whether the bidder should assume a complete greenfield OT-data-acquisition build for BoQ costing purposes. Materially affects BoQ costing accuracy.	Data ingestion from individual OT System to OT Data Lake would be facilitated through the on-prem SCADA OPC UA Server. Bringing the data from these OT systems to OPA UA Server shall be OIL's responsibility. However, integrating the OT Data Lake with the OPC UA Server shall be bidder's responsibility & all connectors/ licenses/ interfaces required for the same shall be provided by the bidder.
1334	47	Appendix-III – Local Content | Minimum 20% Local Content is mandatory; the RFP does not specify the calculation base.	Please confirm whether the 20% Local Content threshold is calculated on the Total Contract Value, or category-wise (e.g., separately for hardware supply vs. services), given that imported items such as video walls and servers typically carry low domestic value-addition.	Clarified. It is 20% of Contract cost.
1335	16	Part-2, Cl. 10.0 – Bid Security Exemption | EMD exemption applies to Central/State Government Departments and PSUs.	Please confirm whether this exemption extends to a PSU bidding as one member of a Consortium (rather than as sole/lead bidder), and if so, how the Consortium's overall Bid Security obligation is treated.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
1336	252	Part-4 Sec-V – HSE/PTW Training Annexure | All personnel must hold valid statutory HSE/PTW/site-specific certifications prior to mobilisation.	Given standard lead times for DGMS/OISD-aligned certifications (Permit-to-Work, Confined Space, Working at Height, etc.), please confirm whether the T0+1M Mobilisation milestone allows adequate time for personnel certification, or whether OIL can facilitate/expedite site-specific inductions.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
1337	103–120 (approx.)	Part-4 Sec-V, Section 6 – Technical & Functional Requirements | Detailed Video Wall / AV technical parameters are set out in Section 6.	Please confirm whether the specified Video Wall and AV technical parameters are indicative/performance-based (allowing equivalent alternatives), or mandatory minimum specifications that must be met exactly by the proposed OEM/model.	Specifications wherever mentioned are minimum required

1338		Min Qualifying Criteria | Technical Experince-Command and Control Center Infra | Successfully executed/completed CCC Infrastructure works (supply, installation, integration, commissioning of control room civil/interior, video-wall(s), operator consoles, AV/VC systems) in Oil &Gas/Petrochemicals/Power/Utilities /Metals in last 7 years from Original Bid Closing Date	For similar projects kindly also allow Smart City Projects with similar technolgy (SITC of control room civil/interior, video walls , opertaor consoles in Smart City Projects) We have multiple experiences for the same across Smart Cities	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
1339	192	VMware Licensing | Part-4 Sec-II | A2.2 (b) | Requires 'VMware vCenter Server 9 or higher Standard Term License per Instance - 192 Instances'.	vCenter Server is licensed per instance, and a 4-host VCF cluster requires 1 instance (2 if a separate DR/management instance is desired). Kindly confirm the required vCenter instance count is 1 (or 2), and that '192' is a typographical carry-over from the core count at A2.1. Quoting 192 vCenter instances would add a very large and technically meaningless cost, and would distort L-1 comparison between bidders who interpret this differently.	Pl refer to amended clause, to be published
1340	191-192	VMware Licensing | Part-4 Sec-II | A2.1 & A2.2 (a)-(f) | Lists SDDC Manager, vCenter, vSphere Ent+, NSX, Aria Operations for Networks and Aria Suite Enterprise as six separate licence components, each for 192 cores.	Under Broadcom's current commercial model, VMware Cloud Foundation 9.x is a single per-core subscription SKU that already bundles vSphere Enterprise Plus, vSAN, NSX, SDDC Manager and VCF Operations (formerly Aria). Kindly confirm that a single VCF 9 per-core subscription for 192 cores, with Production Support 24x7, fully meets Cl. A2 in its entirety. The enumerated components reflect legacy a-la-carte SKUs which Broadcom no longer sells standalone alongside VCF. Without this confirmation, bidders cannot construct a compliant and comparable quote.	Pl refer to amended clause, to be published
1341	191	VMware Licensing | Part-4 Sec-II | A2 heading vs A2.1 | Heading states 'Subscription for 5 years'; Cl. A2.1 states the subscription shall cover 'the entire duration of the CCC project'.	The contract runs 10 months implementation plus 60 months AMC (~70 months). Kindly confirm (i) the required subscription term - 60 or 70 months, and (ii) whether the term commences on delivery/commissioning or on Go-Live. A 60-month subscription commencing at delivery leaves the last ~10 months of the AMC period uncovered. This materially changes price and must be uniform across bidders.	Pl refer to amended clause, to be published

1342	188-190	Storage Design | Part-4 Sec-II | A1.12 (p.188) vs Supply & Installation cl. 3 (p.190) | A1.12 mandates vSAN ReadyNode certification with A1.7 requiring 30 TB usable NVMe per node; p.190 cl.3 states the majority of application workloads shall be hosted on the existing HPE Primera SAN.	Kindly confirm the required vSAN capacity and storage policy (FTT/RAID), and the intended workload split between vSAN and the Primera SAN, so that NVMe capacity per node can be correctly sized.	Pl refer to amended clause, to be published
1343	192	Microsoft Licensing | Part-4 Sec-II | A3.1 & A3.2 (a) | Requires Windows Server 2025 Datacenter for 192 cores, on a subscription basis, 'not tied to the hardware' and redeployable on different hardware.	Windows Server Datacenter is licensed per physical core and assigned to a specific host; it carries no License Mobility right and reassignment is restricted (typically 90 days) unless Software Assurance is held. Kindly confirm that perpetual Windows Server 2025 Datacenter licences for 192 cores with 5-year Software Assurance are acceptable as the compliant equivalent. As drafted the requirement cannot be met by any standard Microsoft licensing construct, exposing every bidder to a non-compliance finding.	Pl refer to amended clause, to be published
1344	192	Microsoft Licensing | Part-4 Sec-II | A3.2 (b) | All licences shall be mapped to OIL's Tenant ID, to be provided after LoA.	Tenant ID is an Entra ID / Azure construct and on-premises Windows Server licences are not tenant-mapped. Kindly clarify whether OIL requires (i) CSP-based licensing under OIL's Azure tenant, (ii) Azure Hybrid Benefit treatment, or (iii) simply registration of entitlements under OIL's Microsoft VLSC / MCA agreement. The licensing vehicle materially changes both cost and the procurement route.	Pl refer to amended clause, to be published
1345	192	Microsoft Licensing | Part-4 Sec-II | A3 (general) | Windows Server Datacenter core licences are specified, but no Client Access Licences are mentioned anywhere in the RFP.	Kindly confirm the required Windows Server CAL type (User or Device) and quantity, or confirm that OIL's existing enterprise CAL entitlement covers all users and devices accessing the CCC servers. Datacenter core licences confer no client access rights. With 25 named OT users and up to 500 simultaneous visualization connections (Cl. vvv, p.200), CAL quantity is commercially significant.	Pl refer to amended clause, to be published

1346	187	Software Scope | Part-4 Sec-II | Cl. a) iv, p.187 | Bidder must supply all system and application components including OS, Databases and Middleware, with necessary licences.	No database or middleware product, edition, or quantity is specified anywhere in the RFP, and no BoQ line exists for them. Kindly specify the expected database and middleware (e.g. SQL Server edition and core count), or confirm that all such components are deemed included within the OT Data Lake platform subscription at BoQ E1.	OIL shall revert
1347	122-334	Licensing Model | Annexure-A3 vs Part-4 Sec-II | Cl. 8.7/8.8 (p.334) & Cl. cc (p.186) vs A6.16 (p.122), B6.15 (p.154), C5.13 (p.172), D5.13 (p.183), A6.17 (p.122), BoQ A9 (p.255) | Annexure-A3 Cl. 8.7 and 8.8 require licences to be subscription based; Cl. cc (p.186) states OIL's preference for subscription. Conversely A6.16/B6.15/C5.13/D5.13 require perpetual licensing with 'no recurring subscription costs', A6.17 requires a perpetual CMS licence, and BoQ A9 requires an on-premises perpetual licence.	Kindly confirm an explicit mapping: that subscription licensing applies to the data platform and cloud stack (BoQ E1, F1, F4, F5, G1, G2), and perpetual licensing applies to AV, collaboration and CMS software (BoQ A6, A8, A9, B6, C5, D5).	OIL shall revert
1348	249	Exit / Licensing | Part-4 Sec-III | Licences, Entitlements & Portability | All software licences to be transferred/assigned/reissued in OIL's name at no additional cost; where licences are non-transferable, the Contractor shall obtain at its own cost replacement or perpetual licences acceptable to OIL.	Cloud and SaaS subscriptions (BoQ E1, F1, F4, F5, G1, G2) are inherently non-transferable and have no perpetual equivalent. Kindly confirm this clause applies only to perpetual/on-premises licences, and that for subscription services the obligation is limited to novation or re-registration into OIL's own tenant/agreement at the next renewal, with migration assistance. Read literally, the bidder would be required to purchase perpetual equivalents of SaaS products that do not exist - an unquantifiable and uninsurable liability.	OIL shall revert
1349	105	Intellectual Property | Part-4 Sec-II | Cl. 4.25 | All source code, models, workflows, dashboards and platform customizations shall be the intellectual property of OIL, with full rights to extend, modify or replicate the solution.	COTS components (OT historian, IT middleware, visualization SaaS, AV collaboration suite, CMS) are licensed and cannot be assigned. Kindly confirm the clause applies to bespoke deliverables developed specifically for OIL, and that pre-existing/background IP and COTS products are provided under a perpetual, irrevocable, royalty-free licence for OIL's internal use. As drafted the clause is incapable of performance for any product-based solution and would exclude all COTS-based bids.	Core COTS/OEM intellectual property remains with the owner. OIL-specific code, configurations, dashboards, workflows and integrations developed under the contract shall be provided to OIL.

1350	192, 260	Sizing / Pricing | Part-4 Sec-IV | BoQ G1 & G2; cf. Cl. b) p.192 | BoQ G1 (SaaS cloud visualization subscription) and G2 (field mobile app subscription) carry no user count. 25 named users is stated only for the OT Data Lake; 500 simultaneous connections applies only to the OT Data Lake visualization tool.	Kindly specify for G1 and G2 the number of named and/or concurrent users, split by role (viewer / author / administrator) and by location, and the number of field devices for the mobile app. SaaS visualization and mobile platforms are licensed per user or per device. Without a stated count no bidder can produce a firm or comparable price.	Pl refer to para 'CCC & Web Application Users' at Pg 215 of current tender; For mobile app, 75 concurrent users to be supported. No named user is required for the OT Data Lake setup; Pl refer to amended clause for deletion of OT Data Lake named users;
1351	186, 192	Sizing / Pricing | Part-4 Sec-II | Cl. aa) p.186; Cl. b) p.192 | Tag capacity 50,000 initially, with scalability up to 100,000 tags and 'seamless expansion by 100% without any additional changes to architecture or hardware'.	Kindly confirm that the subscription licence quantity to be quoted is 50,000 tags, that expansion to 100,000 tags is a future requirement to be exercised separately, and that an optional unit rate line for incremental tag blocks may be provided. It is ambiguous whether the licence itself must be sized for 100,000 tags from day one. The two readings differ by roughly a factor of two on the largest software line item.	Initially, licences based on 50000 tags shall be considered. The solution shall be scalable up to 100000 tags.
1352	186, 202, 260	Cloud / Pricing | Part-4 Sec-II & Sec-IV | BoQ F4/F5; Cl. b) p.202; Cl. y) p.186 | Cloud compute and storage are quoted as fixed quarterly rates for 20 quarters, while Cl. b) p.202 requires CPU/RAM utilisation to average no more than 60% with any shortfall remedied at no extra cost, and Cl. y) requires 10-year OT data retention.	Kindly provide indicative data volumes to permit sizing: total tags with scan rates, expected ingestion in GB/day for OT and IT, projected total storage in TB at years 1 and 5, and expected egress. Further, kindly confirm a mechanism for consumption growth beyond the quoted baseline arising from OIL-initiated scope additions. Cloud cost is consumption-driven. A fixed quarterly price with an open-ended free-capacity obligation and no volume data transfers unbounded risk to the bidder and will force large contingencies into every bid.	OIL to revert
1353	260, 262	Term / Pricing | Part-4 Sec-IV | BoQ E1, F1, F4, F5, G1, G2; Payment Term #9 | Subscription and cloud line items are quoted for 20 quarters (60 months) and are paid quarterly only after Go-Live, whereas the OT and IT Data Lakes must be operational from approximately T0+7 and Go-Live is T0+10.	Kindly confirm whether (i) subscription and cloud consumption during the implementation phase is to be loaded into the implementation line items (E2, F2, G3), or (ii) the quantity at E1, F1, F4, F5, G1 and G2 should be increased to 24 quarters to cover the full 70-month contract. As drafted, roughly 3 to 10 months of subscription and cloud consumption has no BoQ line and no payment milestone.	Please refer to amendments with regards to cloud infrastructure; For Software subscription during implementation upto go-live may be factored into BOQ Line items E2,F2 & G3

1354	200-204, 260	Scope Definition | Part-4 Sec-II & Sec-IV | BoQ E3 & F3; OT table p.200-201; IT table p.203-204 | BoQ E3 provides for 15 OT system integrations and F3 for 15 IT system integrations, both payable on actual numbers integrated. The OT table lists approximately 13 sources, but STF, CTF and ITF each carry both a DCS and a separate TFMS, in some cases from different OEMs. The IT table lists 11 systems.	Kindly define what constitutes 'one system' for payment purposes - per site, per OEM control system, or per discrete data source - and publish the frozen list of systems for both OT and IT. The count varies between 11 and 16 depending on interpretation, directly affecting both effort and revenue on a per-system payment basis.	For integration and payment purposes, each approved discrete source system/interface listed in the Blueprint shall be treated as one integration, irrespective of site or OEM, unless multiple interfaces are separately approved. The final OT and IT integration register shall be frozen during Blueprint/Detailed Design.
1355	188	Hardware Spec | Part-4 Sec-II | A1.3 | Processor specified as 'Minimum 2 X Intel Xeon 6 Series processors with Granite Rapids-D architecture or later, 24 Cores per CPU, 3.0 GHz base or higher, 128 MB Cache or higher'.	The Granite Rapids-D (Xeon 6 SoC) line is an edge/network-optimised, single-socket-oriented family and does not offer the stated combination of dual socket, 24 cores at 3.0 GHz base with 128 MB cache in a 2U vSAN ReadyNode platform. Kindly amend to 'Intel Xeon 6 (Granite Rapids) 6500P/6700P series or later, minimum 24 cores per socket, minimum 2 sockets' or equivalent AMD EPYC, subject to vSAN ReadyNode certification.	OIL shall revert
1356	255, 257	Third-Party Licences | Part-4 Sec-IV | BoQ A7 & B7 | The 3D stereoscopic immersive simulation system shall support industry-leading 3D CAD and visualization software without file conversion, 'including Petrel for petroleum exploration, ArcGIS and more'.	Kindly confirm that OIL will provide its existing Petrel (SLB) and ArcGIS (Esri) licences and the necessary user entitlements, and that the bidder's scope is limited to the immersive visualization middleware, tracking system, stereo hardware and integration. If bidder-supplied licences are intended, kindly add a separate BoQ line and specify the required editions and user counts.	License for Petrel (SLB) is not in the scope of the Bidder
1357	256	AI / Licensing | Part-4 Sec-IV & Sec-II | BoQ A11 | Holographic Box with real-life 3D AI-based character creation and integration with Generative AI / LLM of company assets, with interactive CMS.	Kindly specify or confirm: (i) whether a specific LLM or a bidder-proposed model is required; (ii) whether the model may be consumed as a cloud service hosted in an Indian region, consistent with the data residency requirement at p.250; (iii) the expected query/token volume for sizing; and (iv) whether inference and hosting costs across the 5-year AMC are to be included in the AMC line items. Generative AI is consumption-licensed. With no volume basis and no hosting/residency position, the item cannot be priced and may conflict with OIL's own data residency requirement.	OIL shall revert

1358	49, 254-261	Price Bid Structure | Part-3 BEC vs Part-4 Sec-IV | BEC Cl. 6.14 (p.49) vs BoQ Table A (p.254-261) | BEC Cl. 6.14 evaluates on T = A+B+C+D+E+F where the components are Core Platform & Functional Modules, Integrations & Data Services, Implementation & Delivery, Licences/Hardware/Cloud, AMC, and Manpower & Mobilization. The BoQ at Table A is structured as Sections A to K on an entirely different basis, and contains no Manpower & Mobilization line.	Kindly confirm that the Proforma-B price bid format uploaded on the e-procurement portal is the sole authoritative pricing structure and that Cl. 6.14 is indicative only. If the two differ, kindly re-issue the price bid format and allow adequate time for re-pricing. Bidders cannot determine how to populate the price bid. This directly affects bid responsiveness and L-1 determination.	OIL shall revert
1359	200-201	Third-Party OEM | Part-4 Sec-II | OT integration table | OT systems in scope comprise DCS, SCADA and TFMS platforms from ABB, Yokogawa, Emerson and Honeywell across FHQ, PHQ and RF.	Integration typically requires OEM-supplied OPC servers, interface or connectivity licences, and in some cases OEM engineering support. Kindly confirm (i) whether valid OPC server licences already exist at each listed system, (ii) whether OEM AMC is current for each, and (iii) whether OEM charges for interface enablement, engineering and any required system modification are in OIL's scope or the bidder's. Legacy DCS/SCADA interface licences and OEM engineering can be a very large cost and are not addressed anywhere in the BoQ.	Data ingestion from individual OT System to OT Data Lake would be facilitated through the on-prem SCADA OPC UA Server. Bringing the data from these OT systems to OPA UA Server shall be OIL's responsibility.
1360	74, 216, 247	Liability | Part-4 Sec-III & Sec-I | Cl. 4.3 & 4.4 (p.247); Cl. d) p.216; Cl. 16.0 (p.74) | The contract provides for Liquidated Damages up to 7.5% of implementation cost, SLA penalties up to 7.5% of quarterly contract value, a penalty of Rs 10,000 per day per person for resource absence, withholding for AMC shortfall, and performance security of 10% and 3%.	Kindly confirm (i) the aggregate cap on the bidder's total liability for delay and performance, consistent with the Limitation of Liability provision at Part-4 Sec-I Cl. 16.0, and (ii) that Liquidated Damages and SLA penalties are the sole and exclusive financial remedy for delay and service level shortfall respectively. The remedies as drafted are cumulative with no stated interaction or overall ceiling, which is not insurable and will attract risk loading in every bid.	OIL shall revert
1361	119	Pg 119/ Section A5/ | SITC of Computing Rack servers to access Dashboards and Applications in Control Room	Need clarity on Power Supply Unit to be considered for each server so that overall IT Load and sizing can be calculated	Bidder to consider appropriate Power Supply Unit

1362	139	Pg 139/ Section A15.7 | SITC of Server Rack	Please specify the following . dimenions of rack required . total usable space in rack . per rack IT load to be considered . what load bearing density in racks is required . type of accessories required	To be considered as per solution design & tender requirement
1363	139	Pg 139/ Section A15.7 | SITC of Server Rack	Kindly clarify the following: . Metering in IPDU's is required at PDU or socket level . Is switching required . Slot combination of C13/C19 required in PDU . Temperature and Humidity Sensors need to be considered . Are locking power cables considered at the time of accidental dislodging	To be considered as per solution design & tender requirement
1364	164	Pg 164/ Section 5.3.2 | Civil, Interior and Electrical	Clarificiation required on below points . Type of UPS required : Rack Mountable or Floor Standing . Power Factor to be considered . Total IT load to be connected with UPS	To be considered as per solution design & tender requirement
1365	108	Page no 108 - Section 5.1.2 a) | Bidder to specify Make & Model	Kindly confirm the make and model for UPS & PAC	Bidder is required to specify offered Make & Model
1366	110	Page no 110 - Section 5.1.2 U) | The bidder shall provide a modular online UPS of not less than 48 kVA, with N+1 redundancy,	Kindly confirm whether N+1 Redunadency has to be provided within the frame with modular Architechture UPS. With Hot swappable power modules	To be considered as tender requirement

1367	110	Page no 110 - Section 5.1.2 U) | Dual output distribution	Kindly specify the input & output panel configuration	To be considered as per solution design & tender requirement
1368	110	Page no 110 - Section 5.1.2 w) | VRLA or Li-ion,	Kindly specify the battery configuration for longer life and safety we propose lithium Ion Battery with NMC + LMO Chemistry	To be considered as tender requirement
1369	141	Page no 141 - Section 5.2.2 a) | Bidder to specify Make & Model	Kindly confirm the make and model for UPS & PAC	Bidder is required to specify offered Make & Model
1370	110	Page no 110 - Section 5.2.2 U) | The bidder shall provide a modular online UPS of not less than 48 kVA, with N+1 redundancy,	Kindly confirm whether N+1 Redunadency has to be provided within the frame with modular Architechture UPS. With Hot swappable power modules	To be considered as tender requirement
1371	110	Page no 110 - Section 5.2.2 U) | Dual output distribution	Kindly specify the input & output panel configuration	To be considered as per solution design & tender requirement

1372	110	Page no 110 - Section 5.2.2 w) | VRLA or Li-ion,	Kindly specify the battery configuration for longer life and safety we propose lithium Ion Battery with NMC + LMO Chemistry	To be considered as tender requirement
1373		Part-4, Section-II, Section 5.1.1, Item A1 (WTC Delhi CCC)	Kindly provide room-wise HVAC heat load calculations including Video Wall, AV equipment, Servers, UPS, Lighting and Occupancy loads.	As per requirement & solution design
1374		Section 5.1.2, PAC Requirements	Tender specifies 30 TR PAC/VRF cooling. Please clarify whether 30 TR refers to total installed capacity or net cooling demand.	30 TR refers to minimum installed cooling capacity with N+1 redundancy
1375		Section 5.1.2	Please confirm if PAC sizing shall consider future load expansion and specify the percentage margin to be considered.	PAC sizing shall be as per tender specifications
1376		Section 5.1.2	Kindly provide the indoor design temperature and humidity set points to be maintained by the PAC system. Tender specifies ±1°C temperature control and ±5% RH humidity control only.	Please refer to amended clause to be published

1377		Section 5.1.2	Please provide the outdoor design ambient conditions for Delhi, Duliajan, Jodhpur and Guwahati to be considered for equipment selection.	Bidder to assess during implementation phase
1378		Section 5.1.2 (Server & UPS Rooms)	Kindly provide separate heat loads for Server Rooms and UPS Rooms and confirm whether dedicated PAC units are required.	Please be guided by information in the tender
1379		Section 5.1.2	Please clarify whether DX Precision AC, Chilled Water PAC.	Chilled Water PAC shall not be accepted
1380		Section 5.1.2	Tender specifies N+1 redundancy. Please clarify whether redundancy shall be calculated based on room load or installed capacity.	Please be guided by information in the tender
1381		Section 5.1.2	Kindly confirm acceptable PAC configurations such as 2×15 TR, 3×10 TR or equivalent.	Configuration should meet tender requirement

1382		Section 5.1.2	Please confirm whether automatic Lead-Lag sequencing controller is mandatory and within PAC OEM scope.	Please be guided by information in the tender
1383		Section 5.1.2	Is automatic standby changeover required in the event of PAC failure.	Please be guided by information in the tender
1384		Section 5.1.2	Kindly specify acceptable switchover time between duty and standby units.	Please be guided by information in the tender
1385		Section 5.1.2	Please provide raised-floor height and under-floor plenum space available for air distribution.	OIL to revert
1386		Section 5.1.2	Kindly confirm whether Downflow PAC or Upflow PAC configuration is preferred.	Should meet tender requirement

1387		Section 5.1.2	Is Computational Fluid Dynamics (CFD) analysis required during detailed engineering?	Bidder should consider suitably, if required
1388		Section 5.1.2	Please provide designated locations and routing constraints for outdoor condenser units.	Bidder to carry out site visits to gather these information
1389		Section 5.1.2 (Building Automation)	Kindly confirm required integration protocol: BACnet IP, BACnet MSTP, Modbus TCP, Modbus RTU, or SNMP.	To be guided by tender requirement
1390		Section 5.1.2 (Automation & Monitoring)	Please provide the complete list of PAC monitoring parameters to be integrated with BMS/CCC dashboards.	To be guided by tender requirement
1391		Section 5.1.2	Kindly confirm whether room temperature and humidity sensors are part of PAC scope or BMS scope.	To be guided by tender requirement

1392		Section 5.1.2	Is PAC energy consumption monitoring required on the CCC dashboard?	To be guided by tender requirement
1393		Section 5.1.2	Kindly specify minimum filtration requirements (G4)	To be guided by tender requirement
1394		Section 5.1.2	Please confirm whether humidification and dehumidification functions are mandatory within PAC units.	To be guided by tender requirement
1395		Section 5.1.2	If humidification is required, kindly specify preferred technology	To be guided by tender requirement
1396		Section 5.1.2	Please confirm acceptable refrigerants and whether low-GWP refrigerants are preferred.	To be guided by information in tender

1397		Section 7 (AMC)	Kindly confirm whether compressors, EC fans, humidifier cylinders, controller cards, sensors and refrigerant gas refilling are included under the comprehensive 5-year AMC scope.	Yes
1398		Section 7 (AMC)	Please specify PAC uptime commitment and SLA requirements during AMC.	Uptime to support SLA defined at Pg 244
1399		Section 11 (Installation & Commissioning)	Kindly confirm SAT criteria for PAC systems including temperature stability, humidity stability, redundancy and failover testing.	To be as per standard practices
1400		Annexure A3 (Design Criteria)	Please confirm whether Factory Acceptance Test (FAT) is mandatory for PAC systems before shipment.	Yes
1401		Section 5 (Control Room Infrastructure)	Kindly provide room-wise HVAC layouts and reflected ceiling drawings for engineering and coordination purposes.	Bidder to carry out site visits to gather these information

1402		Section 5 (Control Room Infrastructure)	In absence of detailed room heat loads, please confirm that bidders may size PAC systems based on OEM engineering calculations, subject to OIL approval during detailed engineering.	Bidder to carry out site visits to gather these information
1403	Page 186 – Historical Data Migration Clause # ee	6.1. OT Data Lake setup in FHQ Duliajan Data Centre and, OT & IoT System Integration	The tender requires migration of a minimum of two (2) years of historical data from the integrated OT/IoT systems, including time-series data, events/alerts, SCADA logs and other relevant datasets. However, the tender does not specify the expected volume of historical data to be migrated. We request OIL to kindly provide the estimated/indicative data volume (in GB/TB) for the two completed financial years and current year, preferably system-wise, along with expected data growth rates. This information is required to accurately size the migration infrastructure, storage, processing capacity and associated effort.	The cloud resources shall be provided by OIL; Please refer to amended clause to be published in this regard;
1404	Page 200	OT System Integration / Cloud	The tender specifies integration with multiple OT systems including SCADA, DCS and other OT platforms. We request OIL to clarify whether the OT system integration layer / integration gateway / connectors may be deployed on a secure cloud environment, subject to OIL's cybersecurity, network segregation and data residency requirements, while retaining the OT Data Lake on-premises as specified. Alternatively, please confirm whether all OT integration components are mandatorily required to be deployed on-premises.	No;
1405	Page 225 of 343	9.2 Phase-1 (Current Scope) implementation timeline Table - Implementation & Delivery Schedule Testing & Acceptance Deliverables	The tender specifies various software, middleware, integration, data migration, visualization and application components. However, detailed, measurable Acceptance Criteria for the individual software line items are not clearly defined. We request OIL to kindly publish the Acceptance Criteria / Definition of Done for each software-related BOQ line item, including applicable functional, performance, integration, security, data quality, availability, UAT and documentation criteria. This will ensure a common and objective basis for delivery acceptance and payment.	The bidder shall provide solution as per the detailed functional scope defined in the tender document. The bidder shall demonstrate that the delivered solution meets the approved functional, integration, data migration, dashboard and reporting, workflow, performance, cybersecurity, data quality and operational requirements specified in the tender and subsequent approved Blueprint / Detailed Design documents.

1406	Page 225 of 343	9.2 Phase-1 (Current Scope) implementation timeline Table - Implementation & Delivery Schedule	The tender currently provides an overall implementation schedule for IT and OT Data Lake setup and system integration. Considering the different technical dependencies, security approvals, source-system readiness and operational constraints associated with IT and OT environments, we request OIL to provide separate implementation timelines/milestones for IT system integration and OT system integration. This will enable bidders to plan the respective workstreams independently and account for system-specific dependencies and approvals.	No change: to be guided by tender terms
1407	Page # 262	Page # 262 Payment milestones Page # 262 Payment milestones OT & IT Data Lake Setup, OT & IT System Integration	As per the Payment Terms, several payments are linked to completion of activities under the Implementation & Delivery Schedule, including OT/IT system integration and migration. We request OIL to consider decoupling payment milestones from the overall delivery schedule, particularly where completion of an individual activity may be dependent on third-party systems, availability of source-system data, OIL-side approvals or other dependencies beyond the bidder's control. Payment may instead be linked to objectively measurable and independently verifiable deliverables/acceptance criteria.	No change: to be guided by tender terms
1408	Page 225 of 343	9.2 Phase-1 (Current Scope) implementation timeline Table - Implementation & Delivery Schedule Testing & Acceptance Deliverables	The BOQ provides for payment based on the actual number of systems integrated and historical data migrated. We request OIL to clarify the specific acceptance criteria for considering an IT/OT system as successfully integrated and a historical dataset as successfully migrated, including data completeness, data accuracy, reconciliation, latency, contextualization, availability and successful UAT/sign-off.	An IT/OT system shall be considered successfully integrated upon completion of the approved connectivity, secure data ingestion, interface configuration, data mapping/contextualization, performance and UAT requirements. Historical data migration shall be accepted based on approved scope, completeness, accuracy, reconciliation, metadata mapping, contextualization, data-quality validation and successful sign-off. Detailed criteria and test cases shall be finalized during the blueprint phase and approved by OIL.
1409	Page 200	OT System Integration	The tender indicates that enablement of existing OT systems for OPC UA or equivalent standard communication protocols, along with site-level cybersecurity provisions, shall be provided by OIL. We request OIL to provide the system-wise readiness status and responsibility matrix covering protocol enablement, licenses, API/OPC UA access, network connectivity, firewall rules, cybersecurity approvals and source-system access, so that bidder responsibilities and project timelines can be appropriately defined.	Data ingestion from individual OT System to OT Data Lake would be facilitated through the on-prem SCADA OPC UA Server. Bringing the data from these OT systems to OPA UA Server shall be OIL's responsibility.

1410	Page 200	OT System Integration	Since the data is extracted from multi vendor data and multiple OT systems . Do we need to transform OT Data into the common Asset / device tage hierarchy and normalize tag names which are coming from different vendors and so that the common KPIs / SOPs / workflows can be handled effectively . would OIl provides the common Asset / device tage hierarchy during the design / implementation phase	The bidder shall undertake tag standardization and mapping and configure the asset hierarchies, asset models and templates in accordance with the approved functional specifications. The common asset/device hierarchy, naming conventions and mapping rules shall be approved by OIL. Available master data, asset information, naming conventions, engineering references and business inputs etc. shall be provided by OIL
1411		General	The tender requires the solution to accommodate additional/future IT and OT systems. We request OIL to clarify that any IT/OT system or integration not included in the identified baseline scope shall be treated as additional scope, and that the effort, licenses, infrastructure and integration charges for such additions shall be mutually agreed based on the applicable BOQ/rate mechanism.	It is confirmed that the number of IT/OT systems to be integrated shall be limited to 15 or less for both IT & OT. The final list of IT/OT systems to be integrated will be decided post award of LoA. These may include systems that are currently not mentioned in the tender scope.
1412	42	4.0 FINANCIAL EVALUATION CRITERIA:	As per BEC Clause No. 4.1, the required annual financial turnover is Rs. 32,53,44,000.00. For Consortium members, it is mentioned that one member should meet the full turnover criteria and any one of the consortium member should meet Rs. 16,26,72,000.00 of the criteria. We request the Department to kindly clarify whether the Rs. 16,26,72,000.00 turnover requirement for any one of the consortium member should be achieved in any one of the preceding three financial years, or whether it is to be considered based on the average/cumulative turnover of the three financial years.	Clarified. To be guided as per tender clause.
1413		Compatibility	The proposed servers shall be VMware vSAN ReadyNode certified (or VMware vSAN certified, as applicable) and shall be certified/validated for compatibility with the latest version of VMware Cloud Foundation (VCF). The servers shall support mainstream operating systems, including Windows, SuSE Linux, Redhat Linux, and VMware virtualization platforms. The quoted server configuration may be customized to meet the solution requirements, provided it remains fully supported by the respective OEMs. The proposed server model shall be listed in the latest Broadcom Compatibility Guide for the proposed version of VMware Cloud Foundation (VCF), as published on the official Broadcom website. please amend it to - offered model must support given OS and virtualization software	Please refer to relevant amendments in this regard

1414	101	3.2 | d | IoT systems are implemented for well head monitoring which are deployed in cloud.	1. On which cloud platform IoT System is deployed. Pls confirm 2. How and Which protocol, IoT data will be exposed, Is it OPC UA or API's 3. Is there any network connectivity avialble between Cloud network and L4 Business LAN at Dhulijan network, Pls confirm	Data ingestion from Well-Head Monitoring System to OT Data Lake would be through the on-prem SCADA OPC UA Server & not from Cloud as currently shown in modified Architecture Diagram to be published at Pg#206; hence, integration with Azure Event Hub is not required. Pl refer to the modified Architecture Diagram to be published. The OT Data Lake shall support historical data migration/backfilling from existing OT data sources through APIs, database connectors, historian interfaces, OPC-based interfaces and file-based ingestion mechanisms, including CSV, TXT, ASCII, JSON, XML and equivalent formats as appropriate.
1415	186	6.1 | aa | Tag capacity shall be 50,000 tags initially. The bidder shall ensure proper design of the OT Data Lake solution to process the above tag volume efficiently, with scalability for future expansion up-to 1,00,000 tags.	1. Do we need to consider hardware sizing as per 50000 tags or 100000 tags, Pls confirm 2. What is the tags number segration per plant or site, Pls confirm.	OT Data Lake Hardware infra shall be provided by OIL. Tags number segregation shall be confirmed during design stage.
1416	192	6.1 | b) b | Based on current requirement, the system shall be based on subscription licensing model for 50,000 tags with the capability of seamless expansion by 100% without the requirement of any additional changes to the architecture or hardware. 25 Named users shall be considered for the 5 years subscription period. (software AMC, ongoing support, updates and maintenance etc)	We understand that 25 would concurrent users as it would be more beneficial for more system usage by multple users. Pls confirm.	As per tender
1417	192	6.1 | b) c | n	1. Does source system has redudant servers or support high availability kind of architecture, Pls confirm. 2. If source systtem expose data overr OPC US then does OPC UA server has HA (History Access) feature available, Pls confirm. 3. If souce systems expose data over classic OPC protocols then does it have OPC HDA connectivity, pls confirm.	1. OT Data Lake Integration at Level 4 A. The OT Data Lake (Level 4) shall connect to the OPC servers hosted within the respective SCADA systems at Level 3.5. B. This means the OT Data Lake will act as an OPC UA client and collect data from the SCADA environment. 2. SCADA Responsibility A. The SCADA servers are required to provide OPC UA connectivity and the necessary communication ports.

				B. Therefore, the responsibility for providing OPC UA server functionality lies primarily with the SCADA OEM/vendor. 3. OT Data Lake Compatibility A. The OT Data Lake solution must support OPC UA protocol for secure data exchange. 4. Data Transfer beyond OT Data Lake A. The OT Data Lake solution must support industry-standard protocols such as OPC UA, OPC DA, etc., to facilitate secure and reliable data transfer beyond the OT Data Lake to various data platforms that form part of OIL's Digital Drive 2.0 initiative.
1418	193, 194	6.1 | b) j | The system shall integrate and consolidate data from a variety of data sourcesincluding individual unit DCS, SCADA systems, automation systems,databases, controllers and devices including meters, IOT sensors with support to standard industry protocols: □ OPC-DA □ OPC-HDA □ OPC- A&E □ OPC-UA □ MODBUS TCP/IP □ IEC 61850 □ IEC 60870-5-104 □ DNP3 □ RDBMS □ BACNet □ MQTT □ SNMP	1. IEC 60870-5-104 : This protocol is very old and not used as standard connctors due to cyber security norms, Request you please exclude this from list. 2. BACNet: This is building systems protocol, do we really require this here, as per tender we need to integrate with DCS and SCADA systems and not the building systems. Pls clarify.	1. OT Data Lake Integration at Level 4 A. The OT Data Lake (Level 4) shall connect to the OPC servers hosted within the respective SCADA systems at Level 3.5. B. This means the OT Data Lake will act as an OPC UA client and collect data from the SCADA environment. 2. SCADA Responsibility A. The SCADA servers are required to provide OPC UA connectivity and the necessary communication ports. B. Therefore, the responsibility for providing OPC UA server functionality lies primarily with the SCADA OEM/vendor. 3. OT Data Lake Compatibility A. The OT Data Lake solution must support OPC UA protocol for secure data exchange. 4. Data Transfer beyond OT Data Lake A. The OT Data Lake solution must support industry-standard protocols such as OPC UA, OPC DA, etc., to facilitate secure and reliable data transfer beyond the OT Data Lake to various data platforms that form part of OIL's Digital Drive 2.0 initiative.

1419	194	6.1 | b) k | All the above protocols shall be supported out of the box without requiring any external third-party converters or additional development for protocol conversion. It shall be ready to use plug and play type installations requiring only basic settings with protocol related configurations.	1. If bidder is going to support the entire system for 5 years as per AMC terms, and if bidder takes the ownership of protocols and provide support for third party third party convertor, then our request is to allow Third party convertors for OT integration as per requirement. Pls confirm.	Will be through OPC UA. Refer to relevant amendments in this regard.
1420	194	6.1 | b) l | The data shall be acquired at the same frequency as the source data is updating.	1. Most of the DCS and SCADA system has sub second data, it is really required to capture all data in sub sescond, Pls confirm. 2. We propose to consider 1 or 2% of data is required at subsecond frequency as per use case and rest would be at 1 min scan frequency. Pls clarify.	The proposed OT Data Lake solution shall be capable of acquiring, storing, processing, and visualizing data at the frequency required by the source systems and approved business/operational use cases. The actual data acquisition frequency, historian compression strategy, aggregation intervals, and retention approach shall be finalized during the detailed design phase based on identified source systems, operational requirements, KPI requirements, visualization needs, storage considerations, and performance objectives.
1421	200, 201	6.1 | c) | c) OT System integration scope:	1. Please specify the communication protocol(s) through which each source system will expose data for historian integration (e.g., OPC DA, OPC HDA, OPC UA, Modbus TCP, etc.) and provide the details in the source sytem detail table, Pls confirm. 2. Request you to please specify the source system's operating system (e.g. windows server 2022, 2025 etc..and will it allow to install tunneler component in case of across firewall communication with source system from buffer server. Pls confirm. 3. Does source system has OPC A&E protocol available to collect alarms and event data, it is required for Alarms and evvent data collection. Pls confirm. 4. Please confirm whether a common L3 network layer is available for all unit source systems, or if each unit operates on a dedicated and segregated L3 network. If segregated, please provide details of the network boundaries and interconnectivity between the units. Pls confirm.	1. OT Data Lake Integration at Level 4 A. The OT Data Lake (Level 4) shall connect to the OPC servers hosted within the respective SCADA systems at Level 3.5. B. This means the OT Data Lake will act as an OPC UA client and collect data from the SCADA environment. 2. SCADA Responsibility A. The SCADA servers are required to provide OPC UA connectivity and the necessary communication ports. B. Therefore, the responsibility for providing OPC UA server functionality lies primarily with the SCADA OEM/vendor. 3. OT Data Lake Compatibility A. The OT Data Lake solution must support OPC UA protocol for secure data exchange. 4. Data Transfer beyond OT Data Lake A. The OT Data Lake solution must support industry-standard protocols such as OPC UA, OPC DA, etc., to facilitate secure and reliable data transfer beyond the OT Data Lake to various data platforms that form part of OIL's Digital Drive 2.0 initiative.

1422	General	General | Networking at OT	Can you please share the detailed network topology diagram showing all network levels (L2, L3, L3.5/DMZ, and L4), including the location of each source system, switches, firewalls, and servers. Pls confirm.	Please refer to amended OT architecture
1423	General	General | Networking at OT	Are the L3, L3.5 (DMZ), and L4 network layers already established at the site, or are any of these layers planned to be created as part of the project scope, Pls confirm.	Yes, established at site
1424	General	General | Networking at OT	1. Where is the proposed Historian Interface Server / Collector Server planned to be deployed (L2, L3, L3.5, or L4), Pls confirm. 2. Will the Historian Interface Server require connectivity to all source systems, and from which network level will such access be permitted, Pls confirm. 3. Please confirm whether all source systems are reachable from the proposed Historian Interface Server location without violating cybersecurity policies, Pls confirm.	1. Proposed Historian Server in Cloud will be in Bidder's scope 2. Connectivity of Historian Interface Server will be with OPC Servers located at Duliajan, RF & PHQ 3. Yes
1425	General	General | OT Data Lake Hardware - OnPrem	For the proposed on-premises OT Data Lake deployment, please confirm the preferred infrastructure approach. Can the solution be deployed on an existing virtualization platform (VMware/Hyper-V/Nutanix), or is dedicated bare-metal hardware required? Alternatively, would a hybrid architecture combining virtualized (for Archiving Server) and physical servers (For interface/buffer servers) be acceptable, Pls confirm.	Pl refer to amendments to be published

1426	31	Clause 3.2	Considering the scope which includes IT, OT and CCC such similar work has been executed across Indian Industry under various government initiatives (i.e. Smart City) and basis this, we request you to kindly include Smart city (under Govenment Initiatives) as a part of Qualification. and we also request to include this for Option C.	OIL will review and revert on Experience criteria. However, there will not be any change in the Financial Criteria.
1427	261	SECTION-IV, Table B	Proposed Payment Terms : Mobilization : 10% of Implementation Cost Blueprint Design & Requirement Finalization : 10% of Implementation Cost Procurement Readiness & Approved BOM : 10% of Implementation Cost against approved BOM and procurement release Infrastructure Setup A/B/C/D : Existing 50% + 25% revised to 60% + 30% OT Data Lake Servers (E4) : 80% upon server delivery and installation OT Data Lake Installation (E2) : 50% payment after installation completion, remaining at UAT OT System Integration (E3) : 80% after successful integration and FAT, 20% after Go-Live Historical Migration (E5) : 80% after migration acceptance, 20% at Go-Live UAT / Go-Live : Release entire payment with only 2% retention Hypercare : 2% retained till Hypercare closure Training (J1) : Ok VAPT (H1) : Ok Software Subscription (E1/F1/G1/G2) : Annual payment in advance at the beginning of each year AMC : Quarterly in advance	As per tender
1428	General	General	How many units to be considered at each location, what is the approximatly geographical distance between the units, Pls confirm	Please be guided by tender information

1429	General	General	Does each location has netwrok segregation like L2, L3, L3.5 or is it expacted to be done as part of the project, Pls confirm	In OIL's scope
1430	General	General	Does each location requires it's own historian for process data,Pls confirm. And visualization of it or all the site level users will connect to central location only for visualization of data. Pls confirm	Proposed Historian Server in Cloud will be in Bidder's scope; Connectivity of Historian Interface Server will be with OPC Servers located at Duliajan, RF & PHQ
1431	General	General	Does any process graphics required as part of the visualization from historian ,Pls confirm. In case required, What is the total number of graphics to be considered	No
1432	General	Field Mobile App	Vibration monitoring data are very high frequency data, is it really expacted to be historized in historian, Pls confirm.	Yes
1433	General	General	We understand subscription based term license is acceptable here. Kindly confirm	Yes, as applicable

1434	67-68	1.0 APPLICABILITY, DEFINITION & INTERPRETATION	ADDITION- 1.2.31 INTELLECTUAL PROPERTY: Intellectual Property means all copyrights, trademarks, trade secrets, patents, utility models and other intellectual property rights recognized in any jurisdiction worldwide, including all applications and registrations. 1.8) SOFTWARE: Software means software and firmware provided by Service Provider, and any associated documentation, including any updates, upgrades, error corrections, changes or revisions. All software supplied by Contractor shall be governed by the EULA.	No change in GCC
1435	69-73	14.0 INSURANCE	Proposed revision as follows: "14.9 If any of the above policy expire or/are cancelled during the term of this CONTRACT and CONTRACTOR fails for any reason to renew such policies, OIL in no case shall be liable for any loss/damage occurred during the term when the policy is not effective. Furthermore, a penal interest @ 1% of the Total contract value shall be charged towards not fulfilling of the contractual obligations. Notwithstanding above, should there be a lapse in any insurance required to be taken by the Contractor for any reason whatsoever, loss/damage claims resulting therefrom shall be to the sole account of Contractor."	No Change
1436	74	16.0 LIMITATION OF LIABILITY	Proposed revision as follows: "a) Notwithstanding any other provisions herein to the contrary, except only in cases of Wilful misconduct and/or criminal acts and/or criminal negligence, neither the CONTRACTOR nor the COMPANY (OIL) shall be liable to the other, whether in Contract, tort, or otherwise, for any consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided however that this exclusion shall not apply to any obligation of the CONTRACTOR to pay Liquidated Damages to the COMPANY and/or COMPANY's right to forfeit the Performance Bank Guarantee(s) in terms of the contract. b) Notwithstanding any other provisions incorporated elsewhere in the contract, the aggregate liability of the CONTRACTOR in respect of this contract, whether under Contract, in tort or otherwise, shall not exceed 100% of the Contract Price (if not specified otherwise in SCC), provided however that this limitation shall not apply to the cost of repairing or replacing defective equipment by the CONTRACTOR, or to any obligation of the CONTRACTOR to indemnify the COMPANY with	No change in GCC

			respect to Intellectual Property Rights. c) COMPANY shall indemnify and keep indemnified CONTRACTOR harmless from and against any and all claims, costs, losses and liabilities in excess of the aggregate liability amount in terms of clause (b) above.”	
1437	75	19.0 RISK PURCHASE	We request to delete this clause.	No change in GCC
1438	75-76	22.0 ROYALTY PATENTS	Proposed addition as follows: Indemnitor will defend any suit against indemnitee for any final judgment against indemnitee resulting from the suit provided COMPANY: (a) gives Contractor prompt notice when indemnitee becomes aware of a third-party claim, (b) gives complete authority and assistance (at indemnitor expense) for disposition of the claim, and (c) makes no prejudicial admission about the claim. Indemnitor has no liability, and indemnitee will indemnify indemnitor for claims related to: (a) deliverables used other than for the purpose for which they were delivered, (c) combining a deliverable with a product or software not supplied by indemnitor, (d) modification of a deliverable by anyone other than indemnitor, (e) compromise or settlement made without written indemnitor consent, or (f) indemnitee’s failure to install updates, upgrades, error corrections, changes, or revisions provided by indemnitor. Indemnitor has no liability for indemnitee’s costs or attorney fees. If an infringement claim is made or is likely, Contractor may at its option and expense: (a) procure the right for COMPANY to continue using the Deliverable, (b) modify the Deliverable to be non-infringing, or (c) accept return of the Deliverable (and terminate COMPANY’s applicable software license) and credit COMPANY the purchase price paid for the Deliverable, less reasonable depreciation for use, damage and obsolescence. Failure of COMPANY to accept any of the above remedies in lieu of the infringing	No change in GCC

			Deliverable relieves Contractor of any liability for infringement. Failure to ship infringing Deliverables will not breach the Contract. THIS SECTION STATES CONTRACTOR'S ENTIRE LIABILITY AND COMPANY'S SOLE RECOURSE AND EXCLUSIVE REMEDIES WITH RESPECT TO INFRINGEMENT. ALL WARRANTIES AGAINST INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS, WHETHER STATUTORY, EXPRESS OR IMPLIED, ARE DISCLAIMED. Proposed addition "INTELLECTUAL PROPERTY: No right, title or interest in Intellectual Property provided by Contractor is transferred to COMPANY under the Contract, including Intellectual Property existing prior to, or created independently of, the performance of the Contract. All Intellectual Property and results of Services, including software, models, designs, drawings, documents, inventions, and know-how ("Inventions"), conceived or developed by Contractor in connection with the Contract, are the sole property of Contractor and COMPANY assigns any rights it may have in such Inventions to Contractor. COMPANY has no right or license to Intellectual Property or Inventions provided by Contractor, except as granted in the Contract. Contractor and its Contractors retain all right, title and interest to all Software, and all modifications and enhancements thereof, and no right, title, or interest in the Software, or any copies thereof, is transferred to COMPANY. COMPANY will hold all Software supplied by Contractor in strict confidence and will use best efforts not to disclose Software to others. All Software delivered by Contractor is subject to a software license or software subscription Contract ("License"). If COMPANY does not agree to a License with Contractor, COMPANY does not have a license or right to Software. COMPANY retains all rights that COMPANY already holds in data and other information that COMPANY or persons acting on COMPANY´s behalf input, upload, transfer or make accessible in relation to, or which is collected from COMPANY or third-party devices or equipment by, the Deliverables ("Input Data"). Contractor and its Affiliates have the right to retain, transfer, disclose, duplicate, analyze, modify and otherwise use Input Data to provide, protect, improve or develop Contractor's products or services. Contractor and its Affiliates may also use Input Data for any other	

			purpose provided it is in an anonymized form that does not identify COMPANY. Any COMPANY Personal Data contained within Input Data shall only be used or processed in accordance with the data privacy terms of this Contract and applicable law. All information, analysis, insights, inventions and algorithms derived from Input Data by Contractor and/or its Affiliates (but excluding Input Data itself) and any intellectual property rights related thereto, are owned exclusively and solely by Contractor and are Contractor´s confidential information. This section survives termination of this Contract.	
1439	76-77	23.0 WARRANTY AND REMEDY OF DEFECTS	Proposed revision as follows "23.2 Should COMPANY discover at any time during the tenure of the Contract or till the Unit/equipment/tools are demobilised from site or base camp (if applicable) that the work does not conform to the foregoing warranty, CONTRACTOR shall after receipt of notice from COMPANY, promptly perform any and all corrective work required to make the services conform to the Warranty. Such corrective Work shall be performed entirely at CONTRACTOR's own expenses. If such corrective Work is not performed within a reasonable time, the COMPANY, at its option may have such remedial Work performed by others and charge the cost thereof to CONTRACTOR subject to a maximum of the contract value payable for the defective work which needs corrective action which the CONTRACTOR must pay promptly. In case CONTRACTOR fails to perform remedial work, or pay promptly in respect thereof, the performance security shall be forfeited." Proposed addition as follows Exclusions: Contractor's warranty includes industry standard exclusions under which, Contractor is not liable for defects attributable to: (a) any non-compliance with Contractor's instructions, (b) any unauthorized alterations or repairs, (c) any accident, contamination, abuse, or negligence, or (d) damage caused by failure of any item or service not supplied by Contractor. Disclaimer: Warranties in this section are exclusive and in lieu of all other warranties, whether written, express, implied, statutory or otherwise, including without limitation, implied warranties of merchantability, non-infringement, and fitness for	No change in GCC

			particular purpose. The remedies in this section are Company's only remedies for breach of warranty.	
1440	77-78	26.0 CONFIDENTIALITY, USE OF CONTRACT DOCUMENTS AND INFORMATION	Proposed addition as follows: "Confidentiality obligations as enumerated under this Clause 26 shall apply to mutatis mutandis to the Contractor, to the extent applicable. Confidentiality Information" is information that: (a) is marked as "Confidential" or "Proprietary" at the time of disclosure; or (b) is disclosed orally or visually, is identified by the Party disclosing the information ("Discloser") as confidential at the time of disclosure and is designated as confidential in a writing sent to the receiving Party ("Recipient") within 30 days after disclosure that summarizes the Confidential Information sufficiently for identification. Company shall oblige to maintain the confidentiality of all the document submitted by the Contractor under this contract. Unless otherwise specified, each Party's obligations with respect to the Confidential Information of the other Party will continue for three (3) years after the date of data receipt. Parties agree that breach of confidentiality obligations by the Recipient will cause irreparable damage for which money damages will not be fully adequate, and Discloser is entitled to seek injunctive relief, in addition to any other legal remedies."	No change in GCC
1441	78-80	27.0 REMUNERATION AND TERMS OF PAYMENT	Proposed addition to cl. 27.9 If Company is delinquent in payment to Contractor, Contractor may at its option: (a) withhold performance until all delinquent amounts and late charges, if any, are paid; (b) repossess Products or software for which payment has not been made; (c) assess late charges on delinquent amounts at the lower of 1.5% per month or the maximum rate permitted by law, for each full or partial month; (d) recover all costs of collection, including but not limited to reasonable attorneys' fees;	No change in GCC

1442	81	30.0 TIMELY MOBILIZATION AND LIQUIDATED DAMAGES	Proposed revision as follows: "a) Time is the essence of this Contract. If the CONTRACTOR fails to mobilize and deploy the required manpower/equipment and/or fails to commence the operation within the period specified as specified under mobilization clause under SCC, OIL shall have, without prejudice to any other right or remedy in law or contract including sub clause (b) below, the right to terminate the contract, only if the delay is solely attributed by the Contractor. The right to terminate the contract and the right specified under sub clause (b) shall be the Contractor's entire liability and Company's sole recourse and exclusive remedies with respect to delay. b) If the contractor is unable to mobilize/deploy and commence the operation within the period specified in sub clause (a) above, it may request OIL for extension of the time with unconditionally agreeing for levy and recovery of LD. Upon receipt of such a request, OIL may at its discretion, extend the period of mobilization and shall recover from the CONTRACTOR, as an ascertained and agreed Liquidated Damages, a sum equivalent to @ 0.5% of contract value of the delayed work including mobilization cost, per week or part thereof of delay subject to maximum of 7.5 (five)% of the Contract Price. d) LD will be calculated on the basis of Total Contract value of the delayed work [(if not specified otherwise in SCC] excluding duties and taxes, where such duties/taxes have been shown separately in the contract. However, the applicable GST on the LD shall have to be borne by the CONTRACTOR. Accordingly, the liquidated damages shall be recovered from the CONTRACTOR along with applicable GST."	No change in GCC
1443	81-82	31.0 FORCE MAJEURE	Proposed addition at the end of 1st para "pandemics, quarantines or regional medical crises; shortages or inability to obtain materials, equipment, energy, or components" Proposed addition at the end of 5th para "Upon such termination the Contractor shall entitled to get paid for the completed work before the receipt of Force Majeure event" Proposed addition Add: "Without limiting the generality of the foregoing	No change in GCC

			(including, without limitation, to section pertaining to force majeure, deliveries may be affected by (a) measures implemented by municipal, provincial and federal authorities across the world restricting travel, instituting localized quarantines or requiring companies to interrupt operations in order to contain the spread of COVID-19 or (b) measures implemented by governments, recognized health authorities or private entities to adhere to recommendations from authorities to contain the spread of COVID-19. Contractors will use reasonable endeavors, in accordance with laws and recommendations from recognized health or other authorities, to minimize any such disruptions due to these types of events. The quoted delivery dates may be adjusted by Contractor accordingly, and Contractor will not be liable for damages, including Liquidated Damages, for any delays caused by these types of events. For the avoidance of doubt, the provisions of the Force Majeure clause will be effective even through the circumstance or contingency giving rise to inability of performance will have been operative on the date hereof. If COMPANY cancels an Order without cause, Contractor may enforce any available remedies against COMPANY, including seeking recovery of expenses incurred by Contractor due to producing Deliverables including expenses and costs associated with demobilization, remobilization, contract breakage, restocking, product obsolescence and stranded costs."	
1444	82-83	32.0 SET-OFF	Request to kindly delete this Clause	No change in GCC
1445	83-84	33.0 WITHHOLDING	Request to kindly delete this Clause	No change in GCC

1446	89-92	42.0 SETTLEMENT OF DISPUTES	Proposed deletion of point 3 & 4 of cl. 42.3 Arbitration, instead "If the value of the dispute is less than Rupees One Crore, then Arbitration will be conducted by a single arbitrator to be appointed with mutual consent of both parties. If the Parties are unable to agree on the appointment of a single arbitrator within 30 days of dispute, then a single arbitrator will be appointed by the Mumbai High Court. If the value of the dispute is Rupees one crore or more, then arbitration will be conducted by a panel of three arbitrators. Each Party will appoint one arbitrator, and the said arbitrators will appoint a third arbitrator to act as Presiding Arbitrator." Proposed deletion of cl. 42.6 (a)	No change in GCC
1447	92-94	44.0 TERMINATION	Proposed revise the cure period from "15 days" to "30 days" in cl. 44.5 Termination for Unsatisfactory Performance Proposed revision in cl. 44.8 Termination for delay in mobilization: "CONTRACTOR is required to mobilize complete equipment along with crew for commencement of services at the specified site within the maximum allowed number of days from the date of LOA/Notice for Mobilization as specified in the special conditions of contract. If the CONTRACTOR (successful bidder) fails to complete the mobilization as above, due to the delay attributed by the Contractor, OIL shall have, without prejudice to any other clause of the CONTRACT, the right to terminate the contract." Proposed deletion of cl. 44.9 – termination for convivence – not acceptable Proposed addition to cl. 44.10 at the end of the last para "Provided that, the Contractor shall be entitled to get paid for the completed work before the receipt of termination as specified under 44.2 to 44.8" Proposed addition: "Contractor may terminate this Contract by giving written notice to COMPANY on the following events: (a) material breach of Contract including failure of COMPANY to make payment within 30 days of invoice or the Contractor has reasonable grounds to believe that COMPANY is unable to make payment, and failure	No change in GCC

			to remedy the breach within 3 calendar days after receipt of written notice of non-payment from Contractor; or (b) insolvency or suspension of other Party's operations or any petition filed or proceeding made by or against other Party under any state, Central or other applicable law relating to bankruptcy, arrangement, reorganization, receivership or assignment for benefit of creditors or other similar proceedings. If Contractor terminates the Contract for COMPANY's default, Contractor will, in addition to the payment for the work actually performed by the Contractor till such date of termination (if not already paid for), be also compensated for the following: the cost of equipment manufactured, but not delivered, and the equipment in transit, demobilization costs, other reasonable costs such as payment to sub-Contractors, incurred by the Contractor in the expectation of completing the works, and cancellation fee equivalent to a reasonable margin on the then remaining term of the Contract."	
1448	94-95	45.0 TO DETERMINE THE CONTRACT	Proposed revision as follows "In such an event (i.e. termination under Article No. 44.4 to 44.9 above), the contract shall stand terminated and shall cease to be in force from the date of such notification by the COMPANY. Thereafter the CONTRACTOR shall stop forthwith any of the work then in progress, except those work which the COMPANY may, in writing, require to be done to safeguard any property or work, or installations from damages, and the COMPANY may take over the remaining unfinished work of the CONTRACTOR and complete the same through a fresh CONTRACTOR or by other means, at the risk and cost of the CONTRACTOR, and any of its sureties if any, shall be liable to the COMPANY for any excess cost occasioned by such work having to be so taken over and completed by the COMPANY over and above the Contractor shall be entitled to cost at the rate/cost specified in the schedule of quantities and rates/prices for the completed work."	No change in GCC

1449	95	46.0 WITHOUT DETERMINING THE CONTRACT	Proposed revision "In such an event (i.e. termination under Article No. 44.4 to 44.9 above), the COMPANY may take over the work of the CONTRACTOR or any part thereof and complete the same through a fresh CONTRACTOR or by other means, at the risk and cost of the CONTRACTOR. The CONTRACTOR and any of its sureties are liable to the COMPANY for any excess cost over and above the Contractor shall be entitled to cost at the rates specified in the schedule of quantities and rates/prices, occasioned by such work having been taken over and completed by the COMPANY Contractor."	No change in GCC
1450	232	Definitions	Proposed revision as follows: 2. "Software" refers to all necessary software required for the AP Automation tool to run in a secured manner. Software includes all operating software as well as application software as mentioned under section terms of reference and technical specification. All software shall be governed by End- User License Agreement	No change;
1451	233	Obligations of Bidder	We request to add following:- "8. The bidder shall comply with OIL's software development security requirements and ensure that all solution components, integrations, and deployment processes adhere to OIL's ICT Policies and associated security guidelines."	No change:to be guided by tender terms
1452	234	Other Conditions / Project Progress Tracking	Proposed revision as follows: "2. The Contract price shall remain firm and fixed during the execution of the Contract and not subject to variation on any account. Provided that Contractor may provide COMPANY with written notice of a price increase (a "Price Increase Notice"), in the event that, after the Effective Date, there is an increase of more than [five percent (5%)] in (a) the prices of third-party Products, as well as components and commodity raw materials used for or in the manufacturing of Contractor Products (collectively, the "Materials") or (b) Contractor's costs for energy, freight or labor to manufacture, install, service, or deliver the Materials (each, a "Price Change"). Upon Buyer's request, Contractor will provide reasonable documentation substantiating a Price Increase Notice which may include, without limitation, supplier notifications of	OIL will review and revert.

			price changes or invoices, published index data as applicable for commodities, metals, utilities, energy, electronics, labor, freight carrier rate sheets, third-party market reports from recognized industry sources, or other relevant materials substantiating the Price Change. Upon receipt of a Price Increase Notice, the unit price for all undelivered affected Materials shall be adjusted to reflect the applicable Price Change, effective as of the date stated in the Increase Notice. Any Price Increase Notice under this section is separate from and in addition to other terms which may permit price changes under this Agreement."	
1453	246	4.3. DURING IMPLEMENTATION STAGE	Proposed revision as follows: "2 Liquidated Damage For delay in final Go-live, solely attributed by the Contractor, Liquidated Damages, a sum equivalent to @ 0.5% of Implementation Cost* per week or part thereof of delay subject to maximum of 7.5 (five)% of the Implementation Cost* shall be applicable. Provided that, the liquidated damages under this clause and the liquidated damages specified in clause 30 of the General Condition of Contract shall be capped to 5% of the total contract value."	No change: to be guided by tender terms
1454	247-248	4.4. POST-IMPLEMENTATION PHASE	We request to delete this clause or Consider following revision "6. The penalty shall be capped at a maximum of 7.5 (five)% of the quarterly yearly contract value for the relevant AMC period." Proposed deletion of cl. 7 & 8, "7. In absence of resources during AMC period, a penalty of Rs. 10,000/- per day per person shall be recovered from the quarterly AMC invoice of the Bidder. 8. In addition to the AMC resources, absence of Hyper Care resources during Hyper care period, a penalty of Rs. 10,000/- per day per person shall be recovered from the Hypercare Payment as per Payment Terms # 6." Proposed deletion of whole cl. 11 –	No change: to be guided by tender terms

1455	248-251	6. Exit Management	Proposed revision to "Licenses, Entitlements & Portability" "All software licences procured by the Contractor for the Solution that are required for normal operation shall be transferred or assigned to OIL (or reissued in OIL's name) at no additional cost, unless otherwise stated in the licence terms agreed up-front. Where licences are non transferable, the Contractor shall obtain, at its cost, replacement or perpetual licences acceptable to OIL. The Contractor shall provide a complete inventory of all software (commercial and open source), licences, entitlements, support contracts, and any limitations or vendor dependencies, together with license keys, vendor contacts and renewal schedules. For any custom-developed software, models, dashboards, workflows, automation scripts, and configuration, the Contractor shall deliver source code, build scripts, compiled artifacts, container images."	no change: to be guided by tender terms
1456	251	Cloud & Infrastructure Transition	"Ensure all data processing, backups, and disaster recovery artefacts are located within India, consistent with contract data residency requirements, and document exact data locations."	Data processing, backup, disaster-recovery and residency requirements shall comply with the tender and applicable law.
1457		COMPANY – CAUSED DELAY	Notwithstanding anything else to the contrary, Where Company suspends/delays an order for reasons other than contractual breach by Contractor. Contractor reserves the right to cancel the order and is entitled to be compensated for the work performed/goods delivered/obligations undertaken, including storage charges, insurance payments, title transfer impact etc. The Contractor may at his discretion reserve right to suspend the Contract/ Order and the Company shall be liable to bear an increase in the costs to Contractor including, but not limited to, inventory costs, wind down or startup costs, labor or material costs, or costs incurred from Contractor's Contractors, Contractor will notify the Employer of the cost impact. The parties will agree on the cost and schedule changes within 30 days of Contractor's notification.	The proposed additional clause is not accepted.

1458		PERSONAL DATA PROTECTION	Each Party acknowledges and agrees that it may process certain business contact details relating to individuals engaged by the other Party in the performance of that other Party's obligations under this Agreement ("Staff"). Each Party will take appropriate technical and organizational measures to protect such personal data against any security breaches and shall securely delete it once no longer required for the purposes for which it is processed. Where appropriate and in accordance with the applicable data protection legislation, each Party shall inform its own Staff that they may exercise their rights in respect of their personal data against the other Party by sending a written request with proof of identity to the other Party to the address set forth in this Agreement.	No Change
1459		SANCTIONS	Relating to the entry into and performance pursuant to this Contract, COMPANY will comply with all Sanctions Laws, including regulations administered by the United States of America, the European Union and its Member States, the United Kingdom, and the United Nations ("Sanctions Laws"). COMPANY will not sell, export, re-export, divert, use or otherwise transfer, any Contractor products technology, software, or proprietary information: (i) to or for any Sanctioned Persons or Sanctioned Jurisdictions; or (ii) for purposes prohibited by any Sanctions Laws. COMPANY agrees that Contractor may take any and all actions relating to this transaction or Contract that are required to ensure full compliance with all Sanctions Laws without Contractor incurring any liability. For the purpose of this paragraph, Sanctioned Persons are defined as any individual or entity: (1) named on a governmental denied party or restricted list, including but not limited to: the Office of Foreign Assets Control ("OFAC") list of Specially Designated Nationals and Blocked Persons ("SDN List"), the OFAC Sectoral Sanctions Identifications List ("SSI List"), and the sanctions lists under any other Sanctions Laws; (2) organized under the laws of, ordinarily resident in, or physically located in a jurisdiction subject to comprehensive sanctions administered by OFAC (currently Cuba, Iran, North Korea, Syria, and the Crimea region of Ukraine/Russia) ("Sanctioned Jurisdictions"); and/or (3) owned or controlled, directly or indirectly, 50% or more in the aggregate by one or more of any of the foregoing."	OIL will review and revert.

1460		ORDER CANCELLATION	Notwithstanding anything to the contrary in this Agreement, if Company cancels an Order, including an Order for services or a project, or a portion thereof after Contractor's acceptance of it, Contractor may invoice and Company shall pay a cancellation fee equal to the Order amount for the services; special, discontinued, made-to-order, engineered-to-order, or custom-order parts; or projects. All other Order cancellations by Company are subject to a cancellation fee of thirty percent (30%) of the Order amount. If applicable cancellation fees are not timely paid by Company, Contractor may deliver any Products which were part of the Order and invoice Company for the relevant amount, which invoice Company shall pay in accordance with the payment terms of this Contract.	No change
1461		ANTI- BRIBERY AND ANTI-CORRUPTION	Contractor is subject to national and international laws prohibiting bribery and corruption. Because Contractor is a US Company, Employees, Companies, Contractor-controlled Joint Ventures and Joint Bidding Arrangements, as well as any third party acting on Contractor's behalf must comply with the US Foreign Corrupt Practices Act ("FCPA") and similar anticorruption laws applicable in the countries where Contractor operates. COMPANY certifies that has read, understands, and agrees to abide by the provisions of, the Contractor Code of Business Conduct which is available at: https://www.honeywell.com/who-we-are/integrity-and-compliance and Honeywell Anticorruption Policy https://www.honeywell.com/content/dam/honeywellbt/en/documents/downloads/Anticorruption%20Policy%202066%20pdf.pdf The COMPANY agrees that in connection with its activities under this Agreement, neither the COMPANY nor any agent, affiliate, employee, or other person acting on its behalf will offer, promise, give or authorize the giving of anything of value, or offer, promise, make or authorize the making of any bribe, rebate, payoff, influence payment, kickback or other unlawful payment, to any government official or political party in order to obtain or retain business, gain any unfair advantage or influence any government official's decision. If Contractor has reason to believe that the provisions of this agreement may have been violated, Contractor and its authorized representatives will have the right to audit, examine and make copies of all records that relate to this Agreement including, but not limited to, financial, legal, tax,	No Change

			accounting, operational, labor, and regulatory information. The COMPANY will retain and preserve all records and materials including invoice records, pertaining to the Goods provided under this Purchase Order for a period of 3 (three) years after the termination of this Agreement or for the period prescribed by applicable law, whichever period is longer. In the event that Contractor determines, in its sole discretion, that the COMPANY has engaged in conduct that violates the Contractor Anticorruption Policy or its applicable anti-corruption laws and regulations, Contractor shall have the immediately right to terminate the agreement. If the COMPANY learns of any violations of the above anticorruption provisions in connection with the performance of this agreement, it will immediately notify Contractor's (a) Chief Compliance Officer (b) any member of the Integrity Compliance Department (c) Contractor Access Integrity Helpline (AccessIntegrityHelpline@honeywell.com) and/or the (d) Business Sponsor or Strategic Business Group President. COMPANY agrees to cooperate fully with any Contractor investigation, audit or request for information.	
1462		SOFTWARE LICENSE	The software supplied by Contractor shall be governed by the End User License agreement along with the End User Certification applicable to the transaction.	No change
1463		CYBERSECURITY DISCLAIMER	While cybersecurity services will be provided in professional and workmanlike manner, and include reasonable efforts to validate that recommended third-party cybersecurity solutions will not detrimentally impact performance of Contractor standard products, Contractor makes no guaranty that the cybersecurity products (inclusive of equipment, software and services) provided by Contractor ("Cybersecurity Products") will prevent a cyber attack or mitigate the impact of any cyber attack, and COMPANY acknowledges that Contractor's sole liability, and COMPANY's sole remedy, for any failure of the Cybersecurity Products to perform as specified is replacement of defective product and/or re-performance of defective service, provided Contractor	No change

			is notified by COMPANY of the defects in the Cybersecurity Products during the agreed upon warranty period. Notwithstanding any other terms agreed to between Contractor and COMPANY, COMPANY acknowledges that all Cybersecurity Products that do not carry the Contractor brand ("Third Party Product") are provided to COMPANY subject to the Third Party Product supplier's standard terms and conditions (including software license terms) in effect at the time such Third Party Products are delivered to COMPANY and Contractor has no liability whatsoever with respect to the performance or non-performance of such Third Party Products. Contractor reserves the right to substitute the Third-Party Product included herein or as part of this proposal for other substantially similar products at its sole discretion. Since ultimate system performance, security, and availability is subject to multiple factors outside of Contractor's control, Contractor makes no representation or warranty concerning the results of these services. Contractor does not warrant the security, availability, design, or performance of COMPANY's systems. Contractor's sole obligations with respect to warranty of the services and the associated limits of liability are defined in the agreed upon terms and conditions applicable to the delivery of the services. Contractor accepts no liability for COMPANY's loss of data, system downtime, system degradation, loss or production, or other losses.	
1464	108-139	Section 5.1.2 PG 108-139	Is automatic standby changeover required in the event of PAC failure.	Please be guided by information in the tender
1465	108-139	Section 5.1.2 PG 108-139	Kindly specify acceptable switchover time between duty and standby units.	Please be guided by information in the tender

1466	108-139	Section 5.1.2 PG 108-139	Please provide raised-floor height and under-floor plenum space available for air distribution.	Winning bidder mandatorily need to carry out site visit
1467	108-139	Section 5.1.2 PG 108-139	Kindly confirm whether Downflow PAC or Upflow PAC configuration is preferred.	Should meet tender requirement
1468	108-139	Section 5.1.2 PG 108-139	Is Computational Fluid Dynamics (CFD) analysis required during detailed engineering?	Bidder should consider suitably, if required
1469	108-139	Section 5.1.2 PG 108-139	Please provide designated locations and routing constraints for outdoor condenser units.	Bidder to carry out site visits to gather these information
1470		Section 5.1.2 (Building Automation)	Kindly confirm required integration protocol: BACnet IP, BACnet MSTP, Modbus TCP, Modbus RTU, or SNMP.	To be guided by tender requirement

1471		Section 5.1.2 (Automation & Monitoring)	Please provide the complete list of PAC monitoring parameters to be integrated with BMS/CCC dashboards.	To be guided by tender requirement
1472	108-139	Section 5.1.2 PG 108-139	Kindly confirm whether room temperature and humidity sensors are part of PAC scope or BMS scope.	To be guided by tender requirement
1473	108-139	Section 5.1.2 PG 108-139	Is PAC energy consumption monitoring required on the CCC dashboard?	To be guided by tender requirement
1474	108-139	Section 5.1.2 PG 108-139	Kindly specify minimum filtration requirements (G4)	To be guided by tender requirement
1475	108-139	Section 5.1.2 PG 108-139	Please confirm whether humidification and dehumidification functions are mandatory within PAC units.	To be guided by tender requirement

1476	108-139	Section 5.1.2 PG 108-139	If humidification is required, kindly specify preferred technology	To be guided by tender requirement
1477	108-139	Section 5.1.2 PG 108-139	Please confirm acceptable refrigerants and whether low-GWP refrigerants are preferred.	To be guided by information in tender
1478	215	Section 7 (AMC) PG 215	Kindly confirm whether compressors, EC fans, humidifier cylinders, controller cards, sensors and refrigerant gas refilling are included under the comprehensive 5-year AMC scope.	Yes
1479	215	Section 7 (AMC) PG 215	Please specify PAC uptime commitment and SLA requirements during AMC.	Uptime to support SLA defined at Pg 244 of current tender
1480	224	Section 11 (Installation & Commissioning) PG 224	Kindly confirm SAT criteria for PAC systems including temperature stability, humidity stability, redundancy and failover testing.	To be as per standard practices

1481	323	Annexure A3 (Design Criteria), Pg 323	Please confirm whether Factory Acceptance Test (FAT) is mandatory for PAC systems before shipment.	Yes
1482	105	Section 5 (Control Room Infrastructure) PG 105	Kindly provide room-wise HVAC layouts and reflected ceiling drawings for engineering and coordination purposes.	Bidder to carry out site visits to gather these information
1483	105	Section 5 (Control Room Infrastructure) PG 105	In absence of detailed room heat loads, please confirm that bidders may size PAC systems based on OEM engineering calculations, subject to OIL approval during detailed engineering.	Bidder to carry out site visits to gather these information
1484		CCC Platform	The RFP mentions that many of the applications should be scalable and future integrations should be possible. However we see no scope of sandboxing or test servers / workstation which ensures production is not hampered. Please clarify.	To be guided by tender information
1485		CCC Platform	Since this ccc application to be integrated with and will have data communication from OT and IT , this calls for L4 application layer , the OT is in L3 , we feel there should be data layer 3.5 to be able to communicate between L3 & L4 , wherein as per the IRC 62443 and international standards these layers are mandatory to avoid vulnerability and OT layer exposure to cyber threat. Please suggest.	Please be guided by amended OT Architecture

1486		Connectivity	We request to share a diagram to explain the overall connectivity between various sites ,in terms of available boundary firewall and other routing capabilities , as this will be crucial for us to estimate the connectivity of our racks /systems for in/out of data flow ,	Bidder's scope is limited to requirement specified in the tender
1487	66	12.0 CLAIMS, TAXES & DUTIES: 12.3 Taxes:	All fees payable to Contractor are exclusive of any sales, use, value added tax, service , GST or taxes of a similar nature measured by the services, deliverables or charges thereon, imposed by any applicable taxing jurisdiction and where such taxes are applicable, Company shall be responsible to pay or reimburse Contractor the amount of such taxes. Where applicable, Contractor shall invoice such taxes as a separate line item in applicable invoices and shall pay such amount of tax to the appropriate taxing authority upon receipt of such amount from the Company. Any increase or decrease in the existing taxes or newly introduced taxes shall be to the account of the Company. Each party is responsible for its own income taxes, corporate taxes and franchise taxes. All fees payable to Contractor are exclusive of any sales, use, value added tax, service , GST or taxes of a similar nature measured by the services, deliverables or charges thereon, imposed by any applicable taxing jurisdiction and where such taxes are applicable, Company shall be responsible to pay or reimburse Contractor the amount of such taxes. Where applicable, Contractor shall invoice such taxes as a separate line item in applicable invoices and shall pay such amount of tax to the appropriate taxing authority upon receipt of such amount from the Company. Any increase or decrease in the existing taxes or newly introduced taxes shall be to the account of the Company. Each party is responsible for its own income taxes, corporate taxes and franchise taxes.	No change

1488	78	27.0 REMUNERATION AND TERMS OF PAYMENT:	All payments due for more than thirty (30) days will attract an interest at the rate of 2 percent per month on the invoice amount calculated from the date the payment became due until the recovery is made in full with interest. Without prejudice to the other rights available, Contractor also reserves the right to withhold the provision of services till such time all the payments due to it under this Agreement have been made by Company and any such withholding by the Contractor shall not be treated as breach by it of the provisions of this Agreement.	No change
1489			Contractor 's Proprietary Software and Pre-Existing IP:- The COMPANY acknowledges and agrees that this is a professional services agreement and this agreement is not intended to be used for licensing of any Contractor 's proprietary software or tools. If Contractor and the COMPANY mutually agree that the Contractor provides to the COMPANY any proprietary software or tools of Contractor or of a third party, the parties shall negotiate and set forth the applicable terms and conditions in a separate license agreement and the provisions of this Clause shall not apply to any deliverables related to customization or implementation of any such proprietary software or products of Contractor or of a third party. Further, the COMPANY acknowledges that in performing Services under this Agreement Contractor may use Contractor 's proprietary materials including without limitation any software (or any part or component thereof), tools, methodology, processes, ideas, know-how and technology that are or were developed or owned by Contractor prior to or independent of the Services performed hereunder or any improvements, enhancements, modifications or customization made thereto as part of or in the course of performing the Services hereunder, ("Contractor Pre-Existing IP"). Notwithstanding anything to the contrary contained in this Agreement, Contractor shall continue to retain all the ownership, the rights title and interests to all Contractor Pre-Existing IP and nothing contained herein shall be construed as preventing or restricting Contractor from using Contractor Pre-Existing IP in any manner. To the extent that any Contractor Pre-Existing IP or a portion thereof is incorporated or contained in a deliverable under this Agreement, Contractor hereby grants to the COMPANY a non-exclusive, perpetual, royalty free, fully paid up, irrevocable license, with the right to sublicense through	No change

			multiple tiers, to use, copy, install, perform, display, modify and create derivative works of any such Contractor Pre-Existing IP in connection with the deliverables and only as part of the Deliverables in which they are incorporated or embedded. The foregoing license does not authorizes COMPANY to (a) separate Contractor Pre-Existing IP from the deliverable in which they are incorporated for creating a stand-alone product for marketing to others; (b) independently sell, lease, exchange, mortgage, pledge, license, sub license, assign or in any other way convey, transfer or alienate the Contractor Pre-Existing IP in favour of any person (either for commercial consideration or not (including by way of transmission), and/or (c) except as specifically and to the extent permitted by the Contractor in the relevant Work, reverse compile or in any other way arrive at or attempt to arrive at the source code of the Contractor Pre-Existing IP. Residuary Rights. Each Party shall be entitled to use in the normal course of its business and in providing same or similar services or development of similar deliverables for its other clients, the general knowledge and experience gained and retained in the unaided human memory of its personnel in the performance of this Agreement and applicable Work(s) hereunder. For the purposes of clarity the Contractor shall be free to provide any services or design any deliverable(s) that perform functions same or similar to the deliverables being provided hereunder for the Client, for any other customer of the Contractor (including without limitation any affiliate, competitor or potential competitor of the COMPANY). Nothing contained in this Clause shall relieve either party of its confidentiality obligations with respect to the proprietary and confidential information or material of the other party Similarly all the Intellectual Property Rights (IPR) in the third party software used in providing services including those forming part of or incorporated into the deliverables shall remain with the respective third party owners/ Contractor's licensor and the COMPANY shall have user rights in accordance with end user license agreement (EULA) as applicable to use of such software.	

1490			Notwithstanding anything to the contrary, the maximum penalty and liquidated damages payable to Company by Contractor shall not exceed in aggregate 10% of the value of contract price for reasons solely attributable to the Contractor.	
1491			Following clauses needs to be submitted with the prebid queries/ deviations /proposal. Validity of Proposal This proposal will remain valid for acceptance for a period of ....weeks from the proposal date. Language for Communication The official language for communication on this assignment will be English. Further, all deliverable documents will be in the English language. Letter of Acceptance As the first step for the assignment, the COMPANY will issue Bidder a Letter of Acceptance. This letter will refer to proposal and confirm its acceptance. Initial payment, by cheque or draft drawn on a branch at the location of Bidder's branch submitting the proposal, must accompany the Letter of Acceptance. Lead Time Bidder will commence work within ..... weeks of receiving the requisite advance payment. Execution Infrastructure The COMPANY will provide necessary and adequate infrastructure to enable Bidder to fulfill its commitment for the assignment. This will be applicable for each Bidder Consultant associated with the project and will be arranged for and provided at no cost to Bidder. The infrastructure will include: i. Office space;	No change

			ii. Hardware and software; iii. Computer consumable including stationery, printer ribbons/toner, magnetic storage media such as floppy disks, tapes, cartridges, DATs; iv. Office stationery and consumable; v. Secretarial assistance, if necessary at site; vi. Telephone, e-mail and fax facilities at site; vii. Photocopying assistance; viii. Meeting Room facilities including room equipped with a writing board, seating arrangements, computers/ terminals, overhead projector and consumables. (pl. mention if any additional infrastructure is to be provided). The above-mentioned infrastructure will be required for work to be carried out at the site of COMPANY during regular working hours. COMPANY shall make arrangements to provide for the same beyond these hours such as after regular working hours and on holidays (excluding only compulsory national holidays), whenever required. Co-ordination COMPANY will provide timely clarifications and feedback sought by Bidder's Consultants during the period of this assignment. COMPANY will allocate a Project Co-ordinator to interact with Bidder, fix appointments with various COMPANY Personnel and provide local assistance to Bidder's Consultants. The Project Co-ordinator will have necessary authorization from COMPANY to take decisions and give timely approvals as per the need of the project. Assistance The COMPANY will ensure, through its Project Co-ordinator, transfer of information, specification of mutually agreed change-requirements (Change Requests), availability of materials such as documents and equipment, meetings with relevant users and other personnel among other requisites for Bidder to understand and document the same for the purpose of time-bound formal approval by the COMPANY, before the service is undertaken by Bidder. Necessary and sufficient time will have to be spent by	

			Users in COMPANY with Bidder personnel during this stage of the assignment. Methodology, Tools and Techniques Bidder will use the methodology, tools and techniques as stated in the accompanying Technical Proposal. Any change in these, if desired by the COMPANY will need to be communicated to Bidder in writing with a reasonable notice period to allow for an assessment of their impact, if any, on schedule, technical requirements, feasibility and cost. Deliverables The deliverables will be as per the details of the deliverables provided in the accompanying Technical Proposal. Acceptance of Deliverables COMPANY will carry out acceptance of deliverables (for the deliverables which are subject to acceptance procedure) as per the schedule presented in the accompanying Technical Proposal. The application software (if any) will be delivered/installed for acceptance to COMPANY as and when the same is ready for delivery. The actual Acceptance Testing of the software will be the responsibility of COMPANY. COMPANY will prepare the Acceptance Test data along with the expected test results (consistent with the detailed specifications of the system and any change-request agreed in the documents) and keep it ready at least four (4) weeks in advance before the scheduled commencement of the Acceptance Testing of the software. The acceptance testing will be based on the test cases provided by COMPANY. Bidder will provide support for any clarifications during the Acceptance Testing of the system. Defects if any, observed by COMPANY, will be notified to Bidder in writing not later than two (2) weeks of delivery. Bidder will correct the defects that are a deviation from the baseline immediately following the acceptance, whichever is later. COMPANY will confirm acceptance in writing to Bidder. The COMPANY shall not withhold or delay the issuance of acceptance	

			certificate of any of the deliverables, if the deliverables substantially meet the specifications or on account of any minor defects which have no material effect on the functionality of the deliverables. Notwithstanding the foregoing sentence, a deliverable shall be treated as accepted by COMPANY if the COMPANY (a) fails to provide the list of non conformities within two (2) weeks of delivery, (b) fails to notify the acceptance of the deliverables in terms of this clause within the period of two (2) weeks from delivery, or (c) starts using the deliverable in a live production environment (other than as part of agreed review and acceptance testing procedure, such as UAT). Reworking of defects shall be at the cost of Bidder provided the defects are for reasons solely and entirely attributable to the Bidder, in all other cases it shall be to the account of the COMPANY. Items reported as defects that are not deviations from the immediate previous accepted baseline will be reported again through fresh Change Request documents under the Change Management Procedure described herein. Items reported through the Change Management Procedure will be dealt with separately. Change Management Procedure A change identified at any stage of the assignment which requires the deliverable to deviate from the then current baseline or the approved deliverable of the previous baseline to be modified, will be conveyed by the COMPANY to Bidder or vice-versa in the form of a Change Request document. The request for change will then be assessed by Bidder to evaluate its impact on feasibility, time schedules, technical requirements in consequence of the proposed change and cost. Bidder will present this assessment to the COMPANY for its approval within a reasonable time period. Bidder will incorporate the change after receiving the COMPANY's written approval. In case of delay in approval by the COMPANY, the baseline itself may undergo a change; this will mean a reassessment of the charges. Changes in the requirements like office space, hardware/software, and tools etc. during the execution of the assignment will be conveyed by Bidder to the COMPANY. These will be evaluated jointly by the COMPANY and Bidder and will be provided by the	

			COMPANY at no cost to Bidder. Warranty Bidder shall warrant that the delivered software meets the requirements as specified in the detailed Specifications. This warranty shall remain valid for three (3) months after the acceptance of the software by the COMPANY or three (3) months after the delivery of the software, whichever is earlier. COMPANY shall promptly notify Bidder in writing of any 'defect' in the software arising due to the reasons solely and entirely attributable to Bidder under this warranty. Upon receipt of such notification, Bidder shall remove the 'defect' in the application software. The scope of the warranty shall be limited only to correction of any bugs that were left undetected during acceptance testing by the COMPANY. Warranty shall not cover any enhancements or changes in the application software, carried out after acceptance testing. This warranty is only valid for defects against approved Specifications. The above mentioned warranty shall also not apply if there is any (i) combination, operation, or use of some or all of the deliverables or any modification thereof furnished hereunder with information, software, specifications, instructions, data, or materials not approved by Bidder and operation of the deliverables on incompatible hardware not recommended by Bidder; (ii) any change, not made by Bidder, to some or all of the deliverables; or (iii) if the deliverables have been tampered with, altered or modified by the COMPANY without the written permission of Bidder; or (iv) defects in components or materials provided to Bidder by COMPANY in connection with the preparation of the deliverable. In case of breach of this warranty, COMPANY's exclusive remedy will be to obtain (1) the re-performance of the service or the correction or replacement of any service deliverable that provides substantially similar functionality or (2) if both parties mutually determines that such remedies are not	

			practicable, a refund of the fees allocable to that part of the deliverable will be due to the COMPANY if already paid by the COMPANY. EXCEPT AS SET FORTH IN THIS AGREEMENT, BIDDER MAKES NO WARRANTIES TO COMPANY, EXPRESS OR IMPLIED, WITH RESPECT TO ANY SERVICES OR DELIVERABLES PROVIDED HEREUNDER, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ALL SUCH OTHER WARRANTIES ARE HEREBY DISCLAIMED BY THE BIDDER. Additional Support and Services In case the COMPANY requires any additional support in execution of its tasks in respect of the assignment, it shall be provided to them by Bidder on availability-basis at its then current market rate. Travel and Related Expenses Should the assignment require any travel by any Bidder expert outside their respective base location(s), the COMPANY will provide to-and-fro airfare, board-and-lodging expenses (or, arrangements for the same), as well as local transportation for all such travels. Cost Escalation Bidder will monitor the cost components related to this assignment. At each milestone and at the time of periodic reviews, in case of variances against its budget for reasons not attributable to Bidder like delays in inputs/approvals by the COMPANY, non-availability of facilities at the COMPANY, increase in the scope of the agreed Change-Requirements or increase in the COMPANY's Implementation support requirements etc., Bidder will bring this to the attention of the COMPANY. All such cost increases will be discussed and mutually agreed upon. Bidder will then raise invoices, payment period and other conditions for such invoices, which will be similar to those for payments laid out in this proposal. Confidentiality Both parties agree that they may, in the course of their	

			business relationship with the other, acquire or be exposed to information that is proprietary or confidential to the other party, its affiliates or its or their respective COMPANYs. Both parties undertake, to hold all such information in strictest confidence and not to disclose such information to third parties nor to use such information for any purpose whatsoever save as may be strictly necessary for the performance of the assignment as mentioned in this proposal. The term "Confidential Information" as used herein means any information or documents disclosed by one party to the other party orally, and which is reduced to writing within a period of 3 days of the disclosure or in writing or including but not limited to any written or printed documents, samples, model, technical data/know-how, drawings, photographs, specifications, standards, manuals, reports, formulae, algorithms, processes, information, lists, trade secrets, computer programs, computer software, computer data bases, computer software documentation, quotations and price lists, research products, inventions, development, processes, engineering techniques, strategies, customers, internal procedures, employees and business opportunity and clearly identified and marked as "Confidential Information". The data contained herein shall not be disclosed, duplicated, used in whole or in part for any purpose other than to evaluate the proposal provided that, a contract is awarded to this proposal as a result of, or in connection with the submission of this data. Both the parties shall have the right to duplicate, use or disclose the data to the extent provided in the contract. This confidentiality restrictions shall be for the term of the resultant contract and for a period of two years thereafter. This restriction does not limit the right to use information contained in the data if it: a. Is obtained from another source without restriction. b. Is in the possession of, or was known to, the receiving party prior to its receipt, without an obligation to maintain confidentiality; c. becomes generally known to the public without violation of this Proposal; d. is independently developed by the receiving party without the use of confidential Information and without the participation of individuals who have had access to confidential information; e. is required to be provided under any law, or process	

			of law duly executed. Non-employment The COMPANY will neither offer to employ nor employ, directly or otherwise, any Bidder employee, associated for the purpose of, or with the assignment, during the period between the date of this proposal and two years from the completion of the assignment arising herefrom. General Indemnity The COMPANY will, during the period of the coverage of this assignment, indemnify and hold Bidder harmless from any loss, injury, claim or damage resulting from any death or injury to any person or property of Bidder arising out of the use or possession of the equipment or location of the COMPANY by Bidder or its personnel, unless caused by the negligence of Bidder personnel and the limitation or liability provided herein shall not apply to such loss, injury, claim or damages. Indemnity for infringement of intellectual property rights The COMPANY warrants that all software, information, data, materials and other assistance provided by it under this proposal shall not infringe any intellectual property rights of third parties, and agrees that it shall at all times indemnify and hold Bidder harmless from any loss, claim, damages, costs, expenses, including Attorney's fees, which may be incurred as a result of any action or claim that may be made or initiated against it by any third parties alleging infringement of their rights. Force Majeure Except to the extent otherwise provided herein, no liability shall result to other Party from delay in performance of from non-performance caused by circumstances beyond the control of the Party affected, including but not limited to act of God, fire, flood, explosion, war, action or request of governmental	

			authority, accident, labour trouble but each of the hereto shall be diligent in attempting to remove such cause or causes. If such an event lasts for a continuous period of thirty (30) days, then either party may at any time thereafter while such performance continues to be excused, terminate this Assignment without liability, by notice in writing to the other party. However Bidder shall be entitled to receive payments for all services rendered by it under this Assignment. Arbitration In the event of a dispute or difference of any nature whatsoever between Bidder and the COMPANY during the course of the assignment arising as a result of this proposal, the same will be referred for arbitration to Delhi International Arbitration Center (DIAC) Delhi High Court New Delhi by a sole arbitrator to be mutually appointed by the parties. Such Arbitration shall be governed by the provisions of the Indian Arbitration and Conciliation Act 1996 and the place of arbitration shall be New Delhi. Governing law: This proposal shall be governed by and construed in accordance with Laws of India and the parties submit to the exclusive jurisdiction of the courts in Delhi. Term and Termination This Agreement shall remain valid for a period of _____ The Agreement resulting from this proposal may be terminated: (a) by either party by giving the other party not less than ninety (90) days written notice of termination; (b) forthwith if either party commits any material breach of any term of this contract and which in the case of a breach capable of being remedied shall not have been remedied within thirty (30) working days of written notice to remedy the same; (c) forthwith by either party if the other party shall convene a meeting of its creditors or if a proposal is made for a declaration as insolvent or a proposal for any other composition scheme or arrangement (or assignment for the benefit of its creditors), or if a trustee	

			receiver, administrative receiver or similar officer is appointed in respect of all or any part of the business assets of the other party or if an order is made or a resolution is passed for the purpose of the winding-up of the other party or for the making of an administration order (otherwise than for the purpose of amalgamation or reconstruction); (d) by either party pursuant to Force Majeure. Termination shall be without prejudice to any other rights or remedies a party may be entitled to hereunder or at law and shall not affect any accrued rights or liabilities of either party nor the coming into force or continuation in force of any provision hereof which is expressly intended to come into force or continue in force on or after such termination. In the event of this assignment being terminated, the COMPANY shall be liable to make payments of all the amount due under this assignment for which services have been rendered by Bidder's Consultant's. Forthwith on the expiry or earlier termination of this agreement, each party shall, return to the other party all documents and materials, belonging to the other party with regard to this assignment, or shall at the option of the disclosing party destroy all documents or materials in connection with this assignment. Notices All notices, requests, demands and other communications under this proposal or in connection herewith shall be given to or made upon the respective parties as follows – Bidder:Tata Consultancy Services Limited, TCS House, Raveline Street, Fort, Mumbai 400 001. With a copy to: General Counsel Tata Consultancy Services Limited, TCS House, Raveline Street, Fort, Mumbai 400 001. COMPANY: (pl. fill up the Address).	

			or to such other person or addresses as any of the Parties shall have notified to the others. All notices, requests, demands and other communications given or made in accordance with the provisions of this proposal shall be in writing by letter, fax, email or telegram. Waiver No forbearance, indulgence or relaxation by any Party at any time to require performance of any provision of this Proposal shall in any way affect, diminish or prejudice the right of such party to require performance of that provision and any waiver by any party or any breach of any provisions of this Proposal shall not be construed as a waiver or an amendment of the provisions itself, or a waiver of any right under or arising out of this Proposal. Assignment Neither Party shall be entitled to assign or transfer all or any of its rights, benefits and obligations under this proposal without the prior written consent of the other Party Nonexclusively Bidder shall be free to do similar business either for itself or for any other party or offer similar services to any third parties but without in any way affecting the services agreed to be offered by Bidder under this Proposal. Independent Relationship This Proposal is not intended to create a relationship such as a partnership, joint venture, agency, or employment relationship. Neither party may act in a manner, which expresses or implies a relationship other than that of independent party nor bind the other party. Modification This proposal may be modified only by an amendment	

			executed in writing by a duly authorised representative for each party. Publicity Neither party shall publicize any information pertaining to this assignment or the other party without seeking the prior written consent of the other party. Entire Understanding This Proposal together with the Schedules, Annexure and Exhibits hereto and executed by the parties hereto constitutes the entire understanding between the parties hereto with respect to the subject matter hereto and supercedes and cancels all previous negotiations thereof. To the extent permitted by Applicable Law, a party is not liable to another party in contract or tort or in any other way for a representation or warranty that is not set out in this Agreement. Tata Code of Conduct: The business activities of the Bidder are self-regulated by the "Tata Code of Conduct". The COMPANY undertakes that it will endeavor to promptly report any violation or potential violation of the Code by any person to the Local Ethics Counselor or the Principal Ethics Counsellor or the CEO of Bidder. Bidder, in turn, undertakes that it will maintain confidentiality of all communications received. Survival The clauses of this proposal which by their nature are intended to survive shall so survive the termination/expiry of this proposal. IPR indemnity from COMPANY: COMPANY warrants to Bidder that the software, materials, and other assistance ('COMPANY materials') supplied by COMPANY to Bidder for the purpose of execution of the terms of the agreement are either COMPANY owned properties or are properties obtained by COMPANY under proper intellectual property licenses. COMPANY further warrants that the said software, material and other information, to be	

			provided by COMPANY shall not infringe the intellectual property rights, proprietary rights or any other property rights of any party. If COMPANY materials supplied by COMPANY are found to infringe the intellectual property rights of any party, then COMPANY shall hold harmless and indemnified Bidder , against all claims and actions associated with such infringement, including without limitation the attorney fees spent by Bidder in defending such actions and claims, and any compensation that may be paid by Bidder to settle such claim either in satisfaction of a court decree or otherwise. This clause shall survive the termination of this agreement. The COMPANY will indemnify, defend and hold Bidder harmless from any loss, injury, claim or damage resulting from any death or injury to any person or property of Bidder arising out of the use or possession of the facilities/equipment or location of COMPANY by Bidder or its personnel, unless caused by the negligence of Bidder personnel and the limitation of liability provided herein shall not apply to such loss, injury, claim or damages. SLA Exclusions The time lost due to any of the following causes shall not be included in calculating “Fix/Work Around Available Time” or “Resolution Time”: i Time lost due to power or environmental failures; ii Time taken to recover the equipment because of power or environmental failures; iii Time lost due to damage or malfunction of the equipment or any of the units thereof due to causes attributable to Customer/OEM, such as attachment of additional devices, making alteration to the system, participate in maintenance of the system, etc., without Contractor/ Bidder’s consent. iv Time taken for scheduled maintenance/troubleshooting (including back-up and restore times) either for preventive purposes or improvement in function or other purposes; v Time taken for reconfiguration or other planned downtime situations; vi Scheduled shutdowns as required by Owner/ Purchaser. Contractor/ Bidder may also request Owner/ Purchaser for a shutdown for maintenance purpose, which request will not be denied	

			unreasonably by Owner/ Purchaser. vii Time taken for booting the systems. viii Time taken to get approval from all stakeholders for the exclusive availability of system for support activities where the prospective solutions can be tested prior to promotion into production. ix Time taken by Customer to approve the work around or fix. x Time taken by the third-party Bidders and service providers for fixing a product related fault/ defect, replacement of part(s), or responding to clarifications. Bank Guarantee clause This Bank Guarantee issued by _____Bank, on behalf of the Contractor in favor of Purchaser is in respect of the Contract/agreement dated_____. As communicated by Contractor on the date of execution of this Bank Guarantee an amount of Rupees _____ (Rupees _____ only) is outstanding and payable to Contractor by Purchaser, in respect of pervious contracts between Contractor and Purchaser. As communicated by Contractor on the date of execution of this Bank Guarantee, there are no outstanding disputes related to any pervious contracts between Contractor and Purchaser. Notwithstanding anything contained hereinabove: a) Our liability under this Bank Guarantee shall not exceed and is restricted to Rs._____ (Rupees _____ only) b) This Guarantee shall remain in force up to and including _____ (including claim period of three months) c) Unless the demand/claim under this guarantee is served upon us in writing before _____ all the rights of Purchaser under this guarantee shall stand automatically forfeited and we shall be relieved and discharged from all liabilities mentioned hereinabove.	