



**DIRECTORATE GENERAL OF HYDROCARBONS**  
(Ministry of Petroleum & Natural Gas)  
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Corrigendum No. 1 to tender no. **MM-12014(12)/1/2018-DGH/ENQ-128** for supply, installation, and commissioning of Virtual Reality Centre at DGH Noida

**This corrigendum is issued to amend technical specifications, Bid evaluation criteria, Special Conditions of Contract, extend bid closing/opening date and to provide DGH's response to pre-bid queries.**

**A. Extension of bid closing/opening date**

	In lieu of	Revised
Bid Closing Date	02.11.2018	14.11.2018
Bid Opening Date	05.11.2018	15.11.2018

**B: Amendment to Technical Specifications, Bid evaluation criteria & Special Conditions of Contract**

S.N.	Reference	Existing Clause	Amended Clause
1	A.1.2.2 of Annexure III	In case the bidder is not a manufacturer, then during the last 10 years, the bidder should have executed/commissioned atleast two (02) projects in oil & Gas Industry based on “lamp less DLP 3D stereo technology” AND/OR “6P RGB Laser Projector for 6P Color3D use” atleast 8 million pixels in 3D stereo together with semirigid / rigid rear projection screen and Display Management System for 3D visualization application	In case the bidder is not a manufacturer, then during the last 10 years, the bidder should have executed/ commissioned atleast two (02) projects in high tech industries like oil & Gas/ automotive/ defence/ ship building/ Disaster Management/ aerospace industries etc. based on “lamp less DLP 3D stereo technology” AND/OR “6P RGB Laser Projector for 6P Color3D use” atleast 8 million pixels in 3D stereo together with semirigid / rigid rear projection screen and Display Management System (DMS) for 3D visualization applications. The bidder must ensure that the visualization solution work seamlessly with the popular E&P software like - Petrel, PetroMod, DecisionSpace, HampsonRussell, OFM, PetroBank, Paradigm, ArcGIS etc.
2	A.1.5 ANNEXURE III – Bid Evaluation Criteria	For the purpose of this tender, the Manufacturer Authorization Form (MAF) is required ONLY from the OEM of: 1. Display System (Display management system, screen, projector) 2. Image Generator (Workstation) 3. Storage 4. UPS	For the purpose of this tender, the Manufacturer Authorization Form (MAF) is required ONLY from the OEM of: 1. Display System (Display management system, screen, projector) 2. Image Generator (Workstation) 3. Storage
3	1.1.1 of Annexure-IV	Projector brightness: 44000 ± 5% lumens per projector	Projector brightness: 45000 ± 10% lumens per projector.
4	4th point of clause 1.1.4 of Annexure -IV	Low quality stereo technologies like those based on polarization of light (circular or linear); Z-screen, anaglyph stereo & low quality interlaced stereo are not acceptable.	Stereo technologies like those based on polarization of light (circular or linear); Z-screen, anaglyph stereo & interlaced stereo are not acceptable.
5	Display Management System (Annexure IV)	New Clause	The DMS should have a valid BIS (Bureau of Indian Standards) registration number. This is a mandatory requirement. Bidder shall provide the valid BIS registration number of the product in the bid.

6	Point No 2: Image Generators Item No 13: Security Features (Annexure-IV)	Support for Serial / Parallel / USB enable and disable options; Should support Memory Change Alert, Thermal Alert etc.; drive lock features for selected drives from system BIOS; Chassis Intrusion Alert	Line item stands deleted.
7	Storage capacity under Storage of Annexure-IV	20 TB Usable - 5 TB SSD - 15 TB SAS	Storage Capacity - 20 TB Usable (SSD)
8	Software and Licences under Storage of Annexure-IV	Storage Array Management, Thin provisioning, Implementation of the asked protocols, Move data between SAS & SSD, Point-in Time Copy/Snapshots & restore from Snapshots, Compression/Deduplication, Replication	Storage Array Management, Thin provisioning, Implementation of the asked protocols, Point-in Time Copy/Snapshots & restore from Snapshots, Compression/Deduplication, Replication
9	Capabilities under Storage of Annexure-IV	Cache disk data write protection mechanism to ensure no loss of data in cache or disk cache for minimum 48 hrs.	Cache disk data write protection mechanism to ensure no loss of data in cache or disk cache or equivalent for minimum 48 hrs.

10	Clause 4 of annexure - IV	<p>a. All Interior work including acoustic panelling for providing separation of Display System from audience for isolation of back-end noise, light fixtures, electrical/network points.</p> <p>b. All civil work or its supervision, including but not limited to creation of wall opening for screens, finishing around screen or any decorations for the interiors of the room, false ceiling/ flooring, wall modification, water proofing, gas-based fire proofing, seating arrangement, floor levelling, network installation, cabling baskets/conduits etc.</p> <p>c. Removal and disposal of existing equipment, associated items &amp; packaging material</p> <p>d. Covering the carpet/room equipment during screen painting.</p> <p>e. Installation of any equipment/cables etc. not specifically mentioned in the tender but are required for completion of the project must be supplied and installed by the bidder.</p> <p>f. Installation of cabling baskets or computer floor to cover cabling</p> <p>g. Any equipment &amp; labourers for hoisting the material like crane, manpower etc. must be arranged by the bidder.</p>	<p>a. All Interior work including acoustic panelling for providing separation of Display System from audience for isolation of back-end noise, light fixtures, electrical/network points.</p> <p>b. All civil work or its supervision, including but not limited to creation of wall opening for screens, finishing around screen or any decorations for the interiors of the room, false ceiling/ flooring, wall modification, water proofing, gas-based fire proofing, <u>seating arrangement for atleast 25 persons with single seater movable executive chairs with desk arm, presentation podium, dedicated desk for pilot station,</u> floor levelling, network installation, cabling baskets/conduits etc.</p> <p>c. Removal and disposal of existing equipment, associated items &amp; packaging material</p> <p>d. Covering the carpet/room equipment during screen painting. (if applicable)</p> <p>e. <b><u>Installation of any equipment/ cables/ interior work/ civil work etc. not specifically mentioned in the tender but are required for completion of the project must be supplied and installed by the bidder.</u></b></p> <p>f. Installation of cabling baskets or computer floor to cover cabling</p> <p>g. Any equipment &amp; labourers for hoisting the material like crane, manpower etc. must be arranged by the bidder.</p> <p>h. <u>Existing lay-out of VRC is attached vide Fig 1 &amp; 2.</u></p>
11	"1)" of Special Terms & Conditions	<p>a) Delivery Period: Within 90 days from the date of issue of Letter of Award (LoA). 90 days (applicable for both items i.e. Active &amp; Passive items) from the date of LoA will be considered as date of delivery</p> <p>b) Installation &amp; Commissioning: Within 45 days from the date of Intimation by DGH. Intimation Letter will be issued within 07 (Seven) days after receipt of ordered material at DGH, NOIDA and issue of satisfactory inspection report.</p>	<p>Project Completion Period: Within 135 days from the date of issue of Letter of Award (LOA). 135 days (Delivery of applicable Active &amp; Passive items and successful installation/commissioning of solution) from the date of LoA. On successful installation/ commissioning of the solution, the bidder is allowed 10 days to test and certify that the solution is working as per DGH satisfaction for the 3D visualisation E&amp;P applications viz. Petrel, Petromod, DecisionSpace, HampsonRussell, OFM, PetroBank, Paradigm, ArcGIS etc. The completion certificate will be issued only after certificate of acceptance of the System as per scope of work/ specifications at Annexure-IV and certificate of performance from DGH representative.</p>

12	Payment Terms" of Special Terms & Conditions	<p>(i) 70% payment of the material value on receipt of ordered material at DGH, Noida &amp; satisfactory physical inspection of the materials by DGH &amp; proof of dispatch of material along with other relevant documents as indicated in the tender document.</p> <p>(ii) 20% of the material value along with Installation &amp; commissioning charges will be released after successful installation &amp; commissioning of the entire solution and issue of a certificate of acceptance of the System as per scope of work / specifications at Annexure-IV.</p> <p>(iii) 5% of the material value after successfully fulfilling warranty conditions as per clause-5 for first year.</p> <p>(iv) Balance 5% of the material value after successfully fulfilling warranty conditions as per clause-5 for second year.</p>	<p>(i) 90% payment of the project value (Material Value + Site interior work + installation/Commissioning) on satisfactory physical inspection of the materials and issue of certificate of completion.</p> <p>(ii) 5% of the project value after successfully fulfilling warranty conditions as per clause-5 for first year.</p> <p>(iii) Balance 5% of the project value after successfully fulfilling warranty conditions as per clause-5 for second year.</p>
13	Clause 3 of special terms and conditions	At the rate of ½ % of the order value per week or part there of subject to a maximum of 10%, for the period extending beyond the scheduled delivery date and/or Commissioning date.	At the rate of ½ % of the order value per week or part there of subject to a maximum of 10%, for the period extending beyond the scheduled project completion date.
14	Clause 7 of Special Terms and Conditions	<p>Pre-dispatch Inspection:</p> <p>Pre dispatch inspection of the whole system including the projector &amp; the screen will be undertaken by DGH to verify that the materials conform to the requirements of the tender.</p>	Clause no 7 of special terms and condition stands deleted.

15	Special Terms & Conditions	New Clause	<p>Sum of quoted value of items from 1 to 6 as per price format should not exceed more than 70% of total quoted project value (sum of value of item no 1 to 11 as per price format). In case the total quoted value against items item no 1-6 exceeds 70% of total quoted value for the items from 1-11, the amount (value of items from 1-6) exceeding 70% of total quoted value shall be released in seven (07) equal installments on completion of each year under warranty &amp; AMC. AMC charges for the subsequent year should not be less than that of the previous year.</p> <p>Payemt Terms cluase under Special Terms and Conditions will be guided accordingly.</p> <p><b>Example:</b></p> <p>Sum of value of item from 1-6 = 8000₹</p> <p>Sum of valued of total item (1-11) = 10000₹</p> <p>70% of Total Project Value = <math>10000 \times 70\% = 7000₹</math></p> <p>Amount(value of item from 1-6) Exceeding from 70% of total project value = <math>8000 - 7000 = 1000₹</math></p> <p>These 1000₹ will be paid in 07 equal instalments on completion of each year under warranty &amp; AMC i.e. Amount paid every year = <math>1000/7 = 142.85₹</math></p> <p><b>Payment Terms:</b></p> <p>90% of 7000₹ on completion of project</p> <p>Year-1 : 5% of 7000₹ on completion of 1st year warranty + 142.85₹</p> <p>Year-2 : 5% of 7000₹ on completion of 2nd year warranty + 142.85₹</p> <p>Year-3 : AMC charges of 1st year + 142.85₹</p> <p>Year-4 : AMC charges of 2nd year + 142.85₹</p> <p>Year-5 : AMC charges of 3rd year + 142.85₹</p> <p>Year-6 : AMC charges of 4th year + 142.85₹</p> <p>Year-7 : AMC charges of 5th year + 142.85₹</p>
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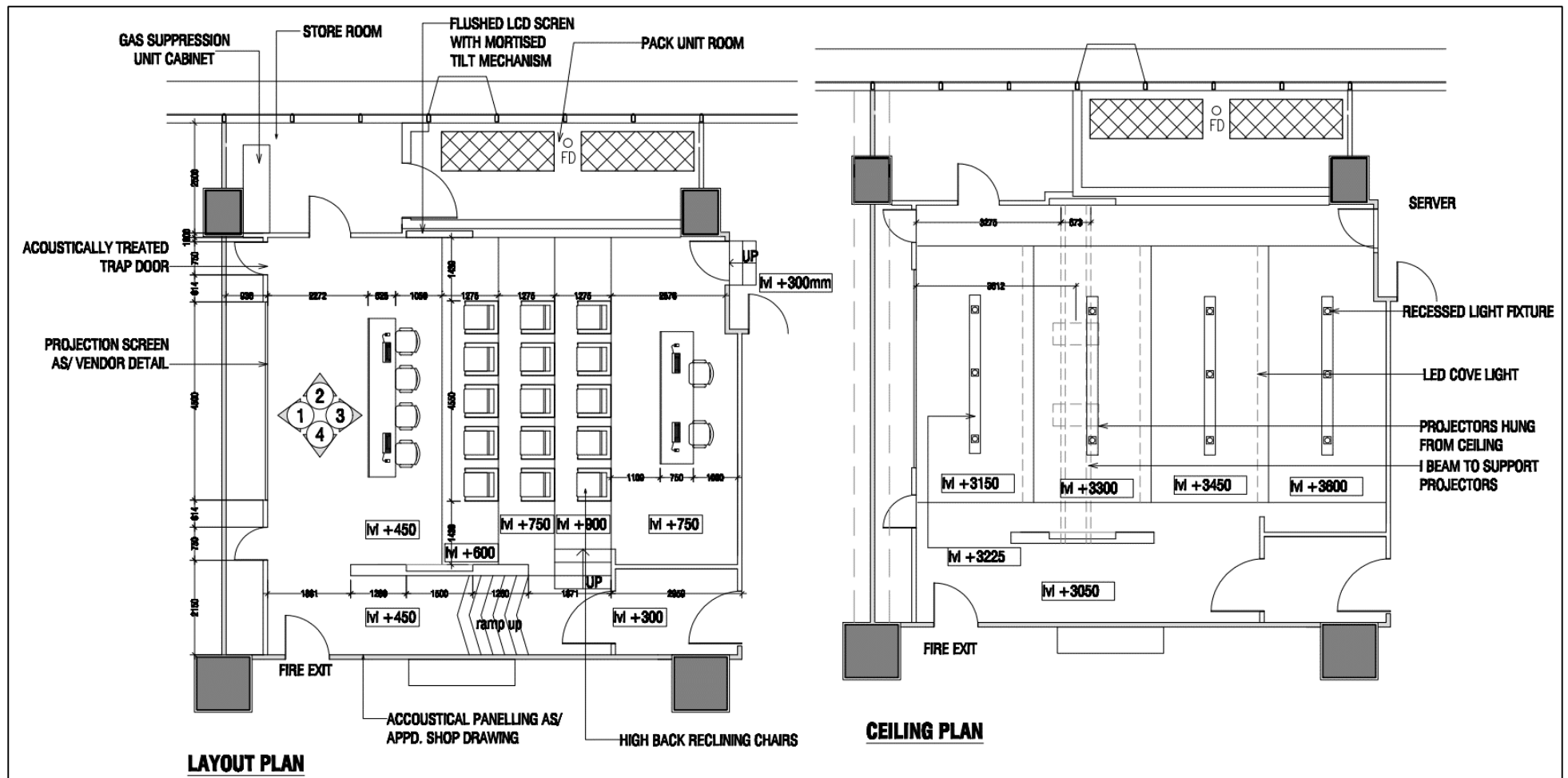


Fig 1

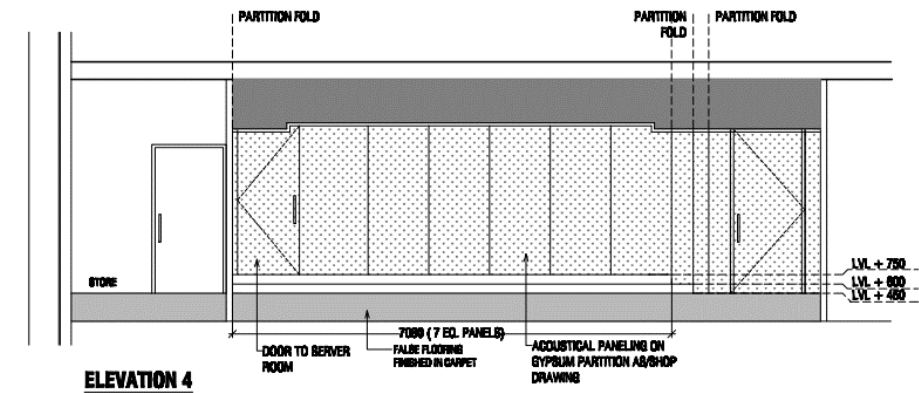
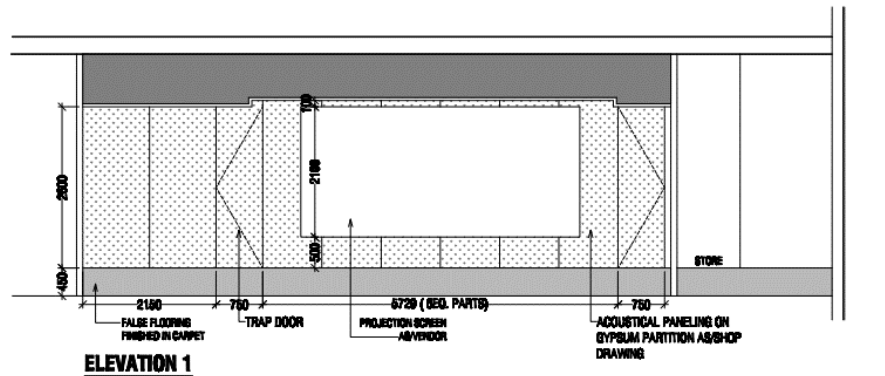
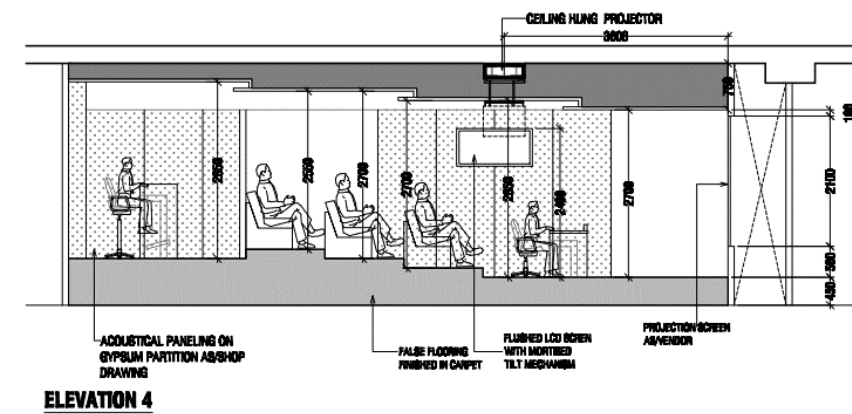
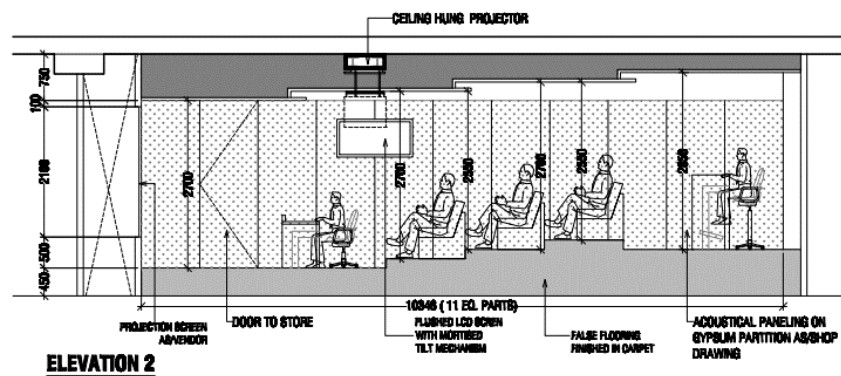


Fig 2



## C: DGH's response to Pre Bid Queries

### Queries from M/s Viz Expert

Sl. No.	Reference	Specification	Query/Proposed Change	Remarks	DGH View/Comment/Reply
1	A.1.2.1 (b) of Annexure III	Should have manufactured and supplied during the last 03 years 6P RGB Laser Projector for 6P Color3D use for minimum two projects of 6P Color3D for professional 3D visualization	Kindly clarify/define "Professional 3D Visualization" in a bit more detail.  Can we assume that "Professional" means projects for use in Oil & Gas, Design, Automotive, Research, Defense, Ship building, Government, Aerospace applications and not in consumer applications like Cinema, home-theater etc.?	Cinema applications like home theatre are not considered as professional applications and are in general very different from the use cases that are intended for this project.	"Profesional" here means projects for use in high tech industries like oil & Gas/ automotive/ defence/ ship building/ Disaster Management/ aerospace industries etc. and not for personal and consumer use like home theater, cinema etc.
2	A.1.2.2 of Annexure III	In case the bidder is not a manufacturer, then during the last 10 years, the bidder should have executed/commissioned atleast two (02) projects in oil & Gas Industry based on "lamp less DLP 3D stereo technology" AND/OR "6P RGB Laser Projector for 6P Color3D use" atleast 8 million pixels in 3D stereo together with semirigid / rigid rear projection screen and Display Management System for 3D visualization application	We request you to kindly amend this clause by adding more professional industries & also allowing the following in addition to "Oil & Gas": Design/Research/ Ship Building/ Automotive/ Defense/Government/ Aerospace/Disaster Management	VizExperts has done the largest number of professional VR installations in the country for mission critical installations with applications including design, research and development, defense and so on.	Refer Amendment SI no 1
3	A.1.3 & A.1.4 of Annexure III	AMC & Spares for 7 years	Will the AMC for 5 years (post warranty period of 2 years) also be awarded together with the contract for Supply? We would request DGH to make the "lifetime" as 5 years instead of 7 years.	OEMs do not provide upfront commitment of 7 years, nowadays.	AMC will be the part of bid evaluation, however the AMC contract will be signed separately. Total life of the project will not be changed.
4	Display Management System (Annexure IV)	No specification related to BIS certification for Display Management System	BIS registration is mandatory legal requirement for equipment like DMS. We request DGH to add the requirement of compulsory BIS registration of Display Management System to the Tender enquiry		Agreed Refer Amendment SI No 5
5	"1a)" of Special Terms & Conditions	Delivery Period: Within 90 days from the date of issue of Letter of Award (LoA). 90 days (applicable for both items i.e. Active & Passive items) from the date of LoA will be considered as date of delivery	Request you to kindly allow 140 days for delivery of goods		Refer Amendment SI no 11

6	"2 Payment Terms" of Special Terms & Conditions	<p>(i) 70% payment of the material value on receipt of ordered material at DGH, Noida &amp; satisfactory physical inspection of the materials by DGH &amp; proof of dispatch of material along with other relevant documents as indicated in the tender document.</p> <p>(ii) 20% of the material value along with Installation &amp; commissioning charges will be released after successful installation &amp; commissioning of the entire solution and issue of a certificate of acceptance of the System as per scope of work / specifications at Annexure-IV.</p> <p>(iii) 5% of the material value after successfully fulfilling warranty conditions as per clause-5 for first year.</p> <p>(iv) Balance 5% of the material value after successfully fulfilling warranty conditions as per clause-5 for second year.</p>	<p>Request DGH to modify this to following:</p> <p>(i) 70% payment of the material value on receipt of ordered material at DGH, Noida &amp; satisfactory physical inspection of the materials by DGH &amp; proof of dispatch of material along with other relevant documents as indicated in the tender document.</p> <p>(ii) 30% of the material value along with Installation &amp; commissioning charges will be released after successful installation &amp; commissioning of the entire solution and issue of a certificate of acceptance of the System as per scope of work / specifications at Annexure-IV, post submission of Performance Bank Guarantee of 10% of project value valid for a period of 24 months.</p>		Refer Amendment SI no 12
7	Annexure III BEC/Rejection Criteria	New Clause request	<p>We would suggest including a Bid Rejection Clause as suggested below to make sure that DGH has the bidder fully committed for AMC support.</p> <p>"Bidders who do not quote for comprehensive AMC &amp; or their quoted rate for AMC charges for five years is less than 10% per annum of material cost (i.e. Supply + Installation including all duties &amp; taxes), their bids will be summarily rejected"</p> <p>These type of clauses were included in all recent VRC Tenders across other Public Sector organizations like ONGC.</p>	<p>There are multiple installations in India, where customers are suffering due to refusal of bidder to sign the AMC contract post award of the contract for supply in absence of such clauses.</p> <p>All Tenders where these clauses were included by customer are under active AMC contracts &amp; support.</p>	Refer Amendment SI no 15

**Queries from M/s Data Vision**

Sl. No.	Reference	Specification	Query/Proposed Change	Remarks	DGH View/Comment/Reply
1	A.1.2.1 (b) of Annexure III	Should have manufactured and supplied during the last 03 years 6P RGB Laser Projector for 6P Color3D use for minimum two projects of 6P Color3D for professional 3D visualization	Kindly clarify/ define Professional 3D Visualization in a bit more detail.		"Profesional" here means projects for use in high tech industries like oil & Gas/ automotive/ defence/ ship building/ Disaster Management/ aerospace industries etc. and not for personal and consumer use like home theater, cinema etc.
2	A.1.2.2 of Annexure III	In case the bidder is not a manufacturer, then during the last 10 years, the bidder should have executed/commissioned atleast two (02) projects in oil & Gas Industry based on "lamp less DLP 3D stereo technology" AND/OR "6P RGB Laser Projector for 6P Color3D use" atleast 8 million pixels in 3D stereo together with semirigid / rigid rear projection screen and Display Management System for 3D visualization application	We request you to kindly change this clause to: In case the bidder is not a manufacturer, then during the last 10 years, the bidder should have executed/commissioned atleast one (01) project in oil & Gas Industry based on DLP 3D stereo technology together with semi- rigid / rigid rear projection screen and Display Management System for 3D visualization application	This would promote healthy participation of more bidders for this Tender enquiry	Refer Amendment SI no 1
3	A.1.3 & A.1.4 of Annexure III	AMC & Spares for 7 years	Will the AMC for 5 years (post warranty period of 2 years) also be awarded together with the contract for Supply? We would request DGH to make the lifetime as 5 years instead of 7 years.	OEMs do not provide upfront commitment of 7 years, nowadays.	AMC will be the part of bid evaluation, however the AMC contract will be signed separately. Total life of the project will not be changed.
4	1.3.3.1, 1.3.3.2, 1.3.5.1& 1.3.5.2 of Annexure-IV	Full display resolution (i.e. 4096 x 2160)...	The requested screen size is of slightly different aspect ratio than 4096x2160. Although the projector is & can be capable of displaying 4096x2160 but, as the screen has a different aspect ratio, hence it will need to be operated at approximately 4096x1800 to avoid information loss.		Agreed The requested solutions should be able to provide the resolution of 4096x2160 pixels, however due to limitation of available space/screen, operating resolution may be lowered to avoid any information loss.
5	Display Management System (Annexure IV)	No specification related to BIS certification for Display Management System	BIS registration is mandatory legal requirement for equipment like DMS. We request DGH to add the requirement of compulsory BIS registration of Display Management System to the Tender enquiry		Refer Amendment SI no 5
6	"1a)" of Special Terms & Conditions	Delivery Period: Within 90 days from the date of issue of Letter of Award (LoA). 90 days (applicable for both items i.e. Active & Passive items) from the date of LoA will be considered as date of delivery	Request you to kindly allow 120 days for delivery of goods		Refer Amendment SI no 11
7	"2 Payment Terms" of Special Terms & Conditions	(I) 70% payment of the material value on receipt of ordered material at DGH, Noida & satisfactory physical inspection of the materials by DGH & proof of dispatch of material along with other relevant documents as indicated in the tender document. (ii) 20% of the material value along with Installation & commissioning charges will be released after successful installation & commissioning of the entire solution and issue of a certificate of acceptance of the System as per scope of work / specifications at Annexure-IV. (iii) 5% of the material value after successfully fulfilling warranty conditions as per clause-5 for first year. (iv) Balance 5% of the material value after successfully fulfilling warranty conditions as per clause-5 for second year.	Request DGH to modify this to following: (i) 70% payment of the material value on receipt of ordered material at DGH, Noida & satisfactory physical inspection of the materials by DGH & proof of dispatch of material along with other relevant documents as indicated in the tender document. (ii) 30% of the material value along with Installation & commissioning charges will be released after successful installation & commissioning of the entire solution and issue of a certificate of acceptance of the System as per scope of work / specifications at Annexure-IV, post submission of Performance Bank Guarantee of 10% of project value valid for a period of 26 months.		Refer Amendment SI no 12

8	Annexure III BEC/Rejection Criteria	Not Specified	<p>We would suggest including a Bid Rejection Clause as suggested below to make sure that DGH has the bidder fully committed for AMC support.</p> <p>"Bidders who do not quote for comprehensive AMC &amp; or their quoted rate for AMC charges for five years is less than 10% per annum of material cost (i.e. Supply + Installation including all duties &amp; taxes), their bids will be summarily rejected"</p> <p>These type of clauses were included in all recent VRC Tenders across other Public Sector organizations like ONGC.</p> <p>Following ONGC Tenders had these clauses:</p> <p>1) GEOPIC-Dehradun (Tender No. /A3JC15016)</p> <p>2) Panvel (Ref No.: P2CCC11002)</p> <p>3) Priyadarshini (Ref No. P2CCG10002/P2CCL11003)</p> <p>4) Bandra (Tender ref. Y150C10006)</p>	<p>There are multiple installations in India, where customers are suffering due to refusal of bidder to sign the AMC contract post award of the contract for supply in absence of such clauses.</p> <p>All Tenders where these clauses were included by customer are under active AMC contracts &amp; support.</p>	Refer Amendment SI no 15
9	Storage Capacity	20 TB Usable - 5 TB SSD - 15 TB SAS	Kindly change it to 50 TB Usable with SSD of 3.2 TB or above	Seismic data has become bigger and needs a lot of performance in order to give better user experience	Refer Amendment SI no 7
10	Controller	Redundant controller configuration running in an active-active mode / automatic failover capabilities	No change requested		
11	Controller Cache:	Minimum 64 GB across the proposed controllers	Minimum 256 GB usable data cache spread across controllers and deliver 200000 IOPS with 4k block size in 50:50 read write ratio	To handle SSDs and ensure the required performance is delivered this change is necessary	No change
12		Ability to de-stage cache to persistent storage in case of power failure	No change requested		
13	Functionality	<p>*Supports both SAN and NAS</p> <p>*Ability to create logical volumes without physical capacity being available (Feature for over provisioning or thin provisioning)</p> <p>*Support quality of service for NAS workload.</p> <p>Capability for Data *Compression/Deduplication.</p> <p>*Capability and license to take Snapshots backup and restore from snapshots."</p>	<p>Add - A) solution to provide storage virtualization capability for storages of other OEMs.</p> <p>B) The solution should be scalable by at least 500% in performance and capacity.</p> <p>C) Should provide data at rest encryption.</p>	Additional feature to ensure existing and future investment protection	No change
14	Raid Support	Supporting Raid Level 6 or equivalent	No change requested		
15	Host Interface	Supports FC, iSCSI, FCoE, NFS & CIFS Protocols	No change requested		
16		4 x 8Gbps FC host ports and 4 x 10Gbps Fibre port	No change requested		
17	Backend Interface	Min 2x 12 Gbps backend ports per controller	No change requested		
18	Interface	Easy to use GUI based and web enabled administration interface for configuration, storage management	No change requested		
19	OS Support	Support for industry-leading Operating System platforms including: LINUX & Microsoft Windows	No change requested		
20	Software and Licenses	The required software licenses should be supplied for the maximum supported capacity (full) for the following features –	No change requested		
21		Storage Array Management, Thin provisioning, Implementation of the asked protocols, Move data between SAS & SSD, Point-in Time Copy/Snapshots & restore from Snapshots, Compression/Deduplication, Replication	Remove "Move data between SAS & SSD"	Capacity on SSD only	Refer Amendment SI no 8
22	Capabilities	Easy to use GUI based and web enabled administration interface for configuration, storage management.	No change requested		
23		Cache disk data write protection mechanism to ensure no loss of data in cache or disk cache for minimum 48 hrs.	Add "or equivalent"	more open specs	Refer Amendment SI no 9
24		Any additional hardware software needed for making the system operational should be provided, and it is the sole responsibility of the vendor to make this operational.	No change requested		
25	Power supply	The system shall support Fully Redundant & Hot Swappable Fans & Power Supplies	No change requested		

**Queries from M/s Barco**

Sl. No.	Reference	Specification	Query/Proposed Change	Remarks	DGH View/Comment/Reply
1	<b>Annexure-III A.1.2.1 (b) (Page No. 45 of 75)</b>	Should have .... for professional 3D visualization.	We request you to kindly define "Professional 3D Visualization".  Can we assume that "Professional" means projects for use in Oil & Gas, Design, Automotive, Research, Defence, Ship-building, Disaster Management, Government, Aerospace applications and not in consumer applications like home-theatre, Cinema etc.?		"Professional" here means projects for use in high tech industries like oil & Gas/ automotive/ defence/ ship building/ Disaster Management/ aerospace industries etc. and not for personal and consumer use like home theater, cinema etc.
2	<b>Annexure-III A.1.2.2 (Page No. 46 of 75)</b>	In case the bidder is not a manufacturer, then during the last 10 years, the bidder should have executed/commissioned atleast two (02) projects in oil & Gas Industry based.....	We request you to kindly add following professional industries in addition to "Oil & Gas" to this clause: Automotive/ Design/ Research/ Ship Building/ Defence/ Disaster Management/ Government/ Aerospace	This would promote healthy participation of multiple bidders for this Tender enquiry	Refer Amendment SI no 1
3	<b>Annexure-III A.1.2.2 (Page No. 46 of 75)</b>	In case the bidder is not a manufacturer, then during the last 10 years, the bidder should have executed/ commissioned atleast two (02) projects in oil & Gas Industry based on "lamp less DLP 3D stereo technology" AND/OR "6P RGB Laser Projector for 6P Color3D use" atleast 8 million pixels in 3D stereo .....	Can we assume that "Atleast 8 million pixels in 3D stereo" is also a mandatory requirement whether the bidder has executed projects based on "lamp-less DLP 3D stereo technology" OR "6P RGB Laser Projector for 6P Color3D use"? Request you to kindly confirm.		Atleast 8 Million pixels are mandatory for both technologies i.e. "lamp less DLP 3D stereo technology" AND/OR "6P RGB Laser Projector for 6P Color3D use"
4	<b>Annexure-III A.1.3 &amp; A.1.4 (Page No. 46 of 75)</b>	AMC & Spares for 7 years	Will the AMC for 5 years (post warranty period of 2 years) also be awarded together with the contract for Supply? Technology changes at very rapid pace these days, we would humbly request DGH to make the "lifetime" as 5 years instead of 7 years.		AMC will be the part of bid evaluation, however the AMC contract will be signed separately. Total life of the project will not be changed.
5	<b>Annexure-III (iii) of A.1.4 (Page No. 46 of 75)</b>	For supply of major equipment & items, the bidder should indicate the source of their bought out items for Projector, Display Management System and Image Generator and clearly indicate the names of the original equipment manufacturer for such bought out items	This appears to be an undertaking to be provided by the bidder & not the OEM.  Kindly clarify.		Agreed, undertaking to be provided by the bidder & not the OEM.
6	<b>Annexure-IV 1.2.3.4 (Page No. 51 of 75)</b>	Screen should be flat – maximum deviation allowed for flatness of screen is 0.7% (± 5%) of screen height	This statement mentions 0.7% & also 5%.  Please confirm which value has to be considered as the requirement of Tender		No, The statement means deviation allowed for flatness of screen is 0.7% which may range between 5% of 0.7% of screen height i.e. the allowed deviation may be in the range of 0.665% to 0.735% of screen height.
7	<b>Annexure-IV 1.3.3.1, 1.3.3.2, 1.3.5.1 &amp; 1.3.5.2 (Page No. 52 of 75)</b>	Full display resolution (i.e. 4096 x 2160)...	The requested screen size (in section 1.2.3) is of slightly different aspect ratio than 4096x2160.  We wish to bring to your kind notice that although the projector is & will be capable of displaying 4096x2160 but, as the screen has a different aspect ratio, hence it will need to be operated at 4096x1800 to avoid information loss.  Ideally, then the main Windows & Linux 3D sources should also be operated at same resolution.		Agreed The requested solutions should be able to provide the resolution of 4096x2160 pixels, however due to limitation of available space/screen, operating resolution may be lowered to avoid any information loss.
8	<b>Annexure-IV Display Management System (Page No. 53 of 75)</b>	No details related to Mandatory certification for Display Management System	We request DGH to add the following Mandatory specification for Display Management System: The DMS should have a valid BIS registration number. Bidder shall provide the valid BIS registration number & certificate of the product in the bid	We wish to bring to your kind notice that as per notifications from Ministry of Electronics & Information Technology (MeitY), data processing equipment needs to mandatorily have BIS registration. Display Management Systems are also covered under this mandatory registration scheme.	Refer Amendment SI no 5
9	<b>Special Terms &amp; Conditions 1a) Delivery Period</b>	Delivery Period: Within 90 days from the date of issue of Letter of Award (LoA). 90 days (applicable for both items i.e. Active & Passive items) from the date of LoA will be considered as date of delivery	Request you to kindly amend this to 130 days		Refer Amendment SI No 11

10	Annexure-III BEC/ Rejection Criteria	Not Specified	<p>It would be beneficial for DGH to include a Bid Rejection Clause similar to the ones included in all recent VRC Tenders across other Public Sector organizations like ONGC – for example, <b>GEOPIC-Dehradun (Tender No. ZA3JC15016), Panvel (Ref No.: P2CCC11002), Priyadarshini (Ref No. P2CCC10002/ P2CCL11003), Bandra (Tender ref. Y15OC10006).</b></p> <p>These clauses make sure that DGH gets a committed AMC support from the bidder.</p> <p>Hence, we recommend adding a clause as hereunder (was also included in ONGC VRC Tender No. ZA3JC15016):</p> <p><b><i>"Bidders who do not quote for comprehensive AMC &amp; or their quoted rate for AMC charges for five years is less than 50% of material cost (i.e. Supply + Installation including all duties &amp; taxes), their bids will be summarily rejected"</i></b></p>	<p>There have been multiple instances where the bidders have quoted the major amount in the initial Supply value and later on during the AMC period have surrendered the AMC contract or have even refused to sign the AMC contract.</p> <p>In this process they just paid small penalty, but the installations in these cases remained without any active AMC support &amp; have significant down-time &amp; cost for customers.</p> <p>There have been more than 3 installations where Bidder had withdrawn AMC support without any justifiable reason, where this clause was not included in tender.</p>	Refer Amendment SI no 15
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**Queries from M/s Schlumberger**

Sl. No.	Reference	Specification	Query/Proposed Change	Remarks	DGH View/Comment/Reply
<b>ANNEXURE I – INSTRUCTIONS TO BIDDERS</b>					
1	28.1		Lines 4-6, Delete “The DGH also reserves to itself the right to accept any bid in part or split the order between two or more bidders.”	We would request DGH to remove the condition as this tender requires complete supply, installation & commissioning of the VRC by the bidder and scope cannot be splitted between bidders.	This clause is not applicable against this tender
<b>ANNEXURE II- GENERAL TERMS AND CONDITIONS</b>					
2	1.17 (vii); Effective Date of Contract/ Supply Order		Special conditions and deviations, if any, taken by SUPPLIER/CONTRACTOR <del>but not and</del> agreed by DGH	Any deviations agreed by DGH should form part of the Contract	To be guided by tender conditions.
3	1.18 (New Definition)		"External Software" means stand-alone, off-the-shelf, third party software delivered with the Equipment/Materials/Goods.		Not agreed. To be guided by tender conditions
4	1.19 (New Definition)		"Proprietary Information" means Contractor software (including all enhancements, updates, corrections, derivative works and other modifications thereto); Documentation, diagnostic software; Equipment design information; Company supplied printed materials; visually transmitted information; and any modifications or components thereof, whether made by Contractor or DGH.		Not agreed. To be guided by tender conditions
5	2.3; Scope of Order		Line 4, replace “to the entire satisfaction of DGH” with “as per Scope of supply (Annexure-IV)”	The design and delivery of the equipment shall be as per scope of supply. Request you to consider the modified language.	Not agreed. To be guided by tender conditions
6	9.3 (Insert new sub clause)		<b>External Software.</b> DGH accept any External Software on "As Is" basis. However, Supplier will pass through any applicable third party vendor's warranties for External Software supplied by Supplier to DGH as the end user, and DGH agree that this is DGH's exclusive remedy.	As per standard industry practice, request DGH to include the standard exclusions from the warranty clause.	Not agreed. To be guided by tender conditions
			<b>Limitations:</b> Supplier's sole responsibility under these warranties will be to provide the Equipment/Materials/Goods, described in the Contract with DGH. Warranties do not apply to: (a) any products other than Equipment/Materials/Goods listed in the Contract; or		Not agreed. To be guided by tender conditions
			(b) conditions resulting from improper use or storage of the Equipment/Materials/Goods or operation of the Equipment/Materials/Goods outside the specified environmental conditions; or		Not agreed. To be guided by tender conditions
			(c) conditions resulting from causes external to the Equipment/Materials/Goods after delivery; or		Not agreed. To be guided by tender conditions
			(d) conditions resulting from modifications to the Equipment/Materials/Goods other than modifications made by Supplier or Supplier's service vendor; or		Not agreed. To be guided by tender conditions
			(e) conditions resulting from DGH's movement of the Equipment/Materials/Goods; or		Not agreed. To be guided by tender conditions
			(f) Equipment/Materials/Goods from which Supplier's or Supplier's service vendor's serial numbers have been removed.		Not agreed. To be guided by tender conditions
			Disclaimer of Warranties. Except as expressly stated herein, CONTRACTOR MAKES NO WARRANTIES, EXPRESS, IMPLIED, OR STATUTORY, WITH RESPECT TO THE EQUIPMENT/MATERIALS/GOODS PROVIDED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.		Not agreed. To be guided by tender conditions
7	15.1; Sub-standard Material / Replacement of Rejected Goods		The clause to be modified as follows: If DGH finds that material supplied are not of the correct quality or not according to specifications required as stated in the Contract or otherwise not satisfactory owing to any reason of which DGH will be the sole judge, DGH shall notify Supplier in accordance with clause 9.2. & 11.0 In case, Supplier fails to rectify /replace/ modify the Equipment/Materials/Goods within the time line stated, DGH will be entitled to reject materials, cancel the contract and buy its requirement in the open market at the risk and cost of SUPPLIER subject to clause 33.0, reserving always to itself the right to forfeit the performance security/Performance Bond placed by the SUPPLIER for the due fulfilment of the contract.	Request you to give us reasonable notice to rectify/repair prior to cancellation of the contract.	To be guided by clause no 9.2 of Annexure II also.

8	21; Designs, Patents and Royalties		Insert new paragraph: Supplier shall not be liable under clause 21 for any patent or copyright infringement or claim thereof based upon		Not agreed. To be guided by tender conditions
			(a) Supplier's compliance with DGH'S specifications, where such specifications require Supplier to modify an Equipment/Materials/Goods or Service;		Not agreed. To be guided by tender conditions
			(b) the combination of the Equipment/Materials/Goods or Service with other items or services not furnished or approved in writing by Supplier;		Not agreed. To be guided by tender conditions
			(c) any unauthorized addition to or modification of the Equipment/Materials/Goods, or alteration of the Services at the request of DGH: or		Not agreed. To be guided by tender conditions
			(d) any use of the Equipment/Materials/Goods in the performance of a method or process (practice of a process), except where such practice is solely completed by or within the Equipment/Materials/Goods.		Not agreed. To be guided by tender conditions
			DGH shall defend and hold Supplier harmless against any expense, judgment or loss for alleged infringement of any patent, copyright or other proprietary right which results from a claim based upon (a), (b), (c), or (d).		Not agreed. To be guided by tender conditions
9	Insert new clause		Indemnity: Either party shall be responsible for and shall protect, indemnify and hold harmless the other, its co-venturers, other contractors, sub-contractors, invitees and their owned, controlled, affiliated and subsidiary companies and the stockholders, directors, agents, employees and representatives of each from and against any and all losses, damages, suits litigation, claims etc arising out of loss or injury to their person or property, without regard to the negligence and/or breach of duty (statutory or otherwise), and/ or default of the other.		Not agreed. To be guided by tender conditions
10	Insert New clause		<b>Ownership and Protection of Proprietary Information:</b> All Intellectual Property rights and Proprietary Information in and to the Equipment/Materials/Goods and any modifications, improvements, enhancements or derivative works of the Equipment/Materials/Goods will vest and remain with Supplier or Supplier's licensors or suppliers.		Not agreed. To be guided by tender conditions
			DGH agree to use DGH's best efforts to safeguard the Intellectual Property and Proprietary Information in the Equipment/Materials/Goods as DGH would DGH's own confidential information. DGH will disclose the Proprietary Information only to its employees on a need-to-know basis. DGH will maintain adequate internal procedures, including appropriate binding agreements with DGH's employees, to protect the Proprietary Information in the same way as DGH protect its own confidential proprietary information. If this Agreement is cancelled or terminated, DGH agree to return or destroy, at Contractor's direction, all such Proprietary Information.		Not agreed. To be guided by tender conditions
			The confidentiality obligations contained in this Article do not apply to Proprietary Information which is: (a) rightfully in DGH's possession prior to the time it is received from Contractor, (b) provided by Contractor to others free of any restrictions on disclosure and use, (c) provided to DGH by a third party who has an authorized and unrestricted right to disclose, or (d) independently developed by DGH without breach of this Agreement.		Not agreed. To be guided by tender conditions
ANNEXURE III – Bid Evaluation Criteria					
11	A.1.5, Page 46		For the purpose of this tender, the Manufacturer Authorization Form (MAF) is required ONLY from the OEM of: 1. Display System (Display management system, screen, projector) 2. Image Generator (Workstation) 3. Storage 4. UPS	We request DGH to kindly remove requirement of MAF for UPS as UPS is minor, non-critical component of the entire solution.	Refer Amendment SI no 2



12	BEC/ Rejection Criteria – Insertion of the clause		All recent VRC Tenders in Oil & Gas market in India had clauses similar to below for ensuring long-term commitment of bidder to the customer. We would strongly recommended DGH to include the following clause: “Bidders who do not quote for comprehensive AMC & or their quoted rate for AMC charges for five years is less than 10% per annum of material cost (i.e. Supply + Installation including all duties & taxes), their bids will be summarily rejected”	Some Public Tenders of ONGC where similar clauses were included: 1) VRC, GEOPIC-Dehradun (Tender No. ZA3JC15016) 2) ONGC, Panvel (Ref No.: P2CCC11002) 3) Priyadarshini Building (Ref No. P2CCC10002/ P2CCL11003) 4) Vasudhara Bhawan, Bandra (Tender ref. Y15OC10006)	Refer Amendment SI no 15
<b>ANNEXURE IV – SCOPE OF WORK</b>					
13	Pg 55 Point 1.4.4 Refer to Accessories		Audio System: IP based controlled Audio System with 5.1 Powered Speakers. <del>Mixer and Preamplifier suitable to room size with 3 nos. of Lapel mike and 3 nos. of Neck-worn wireless mike.</del> To be integrated with the Image Generators, Laptops, HD-video conference etc.	Request DGH to consider removing the following items as the room size is small and therefore, the Mixer, Preamplifier, lapel Mike and Neck-worn mike is not required.	No Change
14	Pg 57 Point No 2: Image Generators Item No 13: Security Features		Support for Serial / Parallel / USB enable and disable options; Should support Memory Change Alert, Thermal Alert etc.; drive lock features for selected drives from system BIOS; Chassis Intrusion Alert	Request DGH to consider removing the entire line item as it is limited to supply by one OEM.	Refer Amendment SI no 6
15	Pg 57 : Storage Point no 1 on Storage Capacity		20 TB Usable - 5 TB SSD - 15 TB 10K RPM SAS	Please change to 80 TB Usable with SSD as Seismic Data & processed data that will be stored & will require more Capacity	Refer Amendment SI no 7
16	Pg 57 : Storage Point no 3 on Controller Cache		Minimum 64 GB across the proposed controllers	Please change to Minimum 256 GB to handle SSD.	No Change
17	Pg 57 : Storage Point no 10 on Software and Licenses		Storage Array Management, Thin provisioning, Implementation of the asked protocols, Move data between SAS & SSD, Point-in Time Copy/Snapshots & restore from Snapshots, Compression/Deduplication, Replication	Request for modification of the clause as it is all SSD.	Refer Amendment SI no 8
18	Pg. 52, Display Management System		No specification related to Mandatory BIS certification for Display Management System	BIS registration is mandatory legal requirement for equipment like DMS. We request DGH to add the requirement of compulsory BIS registration of Display Management System to the Tender enquiry.	Refer Amendment SI no 5
<b>ANNUAL MAINTENANCE CONTRACT</b>					
19	E.d (v); Penalty		The Corporation may without prejudice to its right to effect recovery by any other method, deduct and withhold the amount of liquidated damages from any money belonging to the Contractor in its hands <u>under this Contract</u> (which includes the corporation's right to claim such amount against Contractor's Bank guarantee) or which may become due to the Contractor <u>under this Contract</u> . Any such recovery of penalty shall not relieve the Contractor from any of its obligations / liabilities under the Contract.	For clarity, any money due to the Contractor under this contract can be deducted/withheld by DGH	Agreed
20	Insert new clause for Limitation of Liability		Notwithstanding any other provisions, (a) Neither Supplier nor DGH 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 Supplier to pay Liquidated Damages to DGH and;	For the AMC contract, request DGH to please include the below points: - Exclusion of consequential damages under the AMC contract.	General Terms and condition shall also be applicable to AMC. May please be guided accordingly
			(b) Notwithstanding any other provisions incorporated elsewhere in the contract, the aggregate liability of the Supplier in respect of this contract, whether under the Contract, in tort or otherwise, shall not exceed 50% of the annualized Contract Price, provided however that this limitation shall not apply to the cost of repairing or replacing defective equipment by Supplier, or to any obligation of Supplier to indemnify DGH with respect to Intellectual Property Rights.	- Capping the liability of the contractor under the AMC contract as AMC contract will be separate.	General Terms and condition shall also be applicable to AMC. May please be guided accordingly
			(c) DGH shall indemnify and keep indemnified Supplier 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.	- Counter indemnity.	General Terms and condition shall also be applicable to AMC. May please be guided accordingly

21	Insert new clause for Indemnity		Either party shall be responsible for and shall protect, indemnify and hold harmless the other, its co-venturers, other contractors, sub-contractors, invitees and their owned, controlled, affiliated and subsidiary companies and the stockholders, directors, agents, employees and representatives of each from and against any and all losses, damages, suits litigation, claims etc arising out of loss or injury to their person or property, without regard to the negligence and/or breach of duty (statutory or otherwise), and/or default of the other.	Request DGH to include the mutual hold harmless clause in the AMC Contract.	Not agreed. To be guided by tender conditions
22	Insert new clause for Data Liability		DGH shall at all times be responsible for the product(s) provided by DGH and for providing back-up for all software applications and data files. It is clearly understood that Supplier shall have no liability for loss, damage or destruction to any of DGH's data, except in the case of intentional misconduct, in which case the Supplier's sole liability is limited to the costs of recovering and reloading the data from the most recent database back-up. In no event shall the Supplier ever be liable for reacquiring DGH's data.	Request DGH to include the Data Liability clause in the AMC Contract.	Not agreed. To be guided by tender conditions
<b>Special Terms and Conditions</b>					
23	Clause 1. (a) & (b)		a) Delivery Period: Within 90 days from the date of issue of Letter of Award (LoA). 90 days (applicable for both items i.e. Active & Passive items) from the date of LoA will be considered as date of delivery. b) Installation & Commissioning: Within 45 days from the date of Intimation by DGH. Intimation Letter will be issued within 07 (Seven) days after receipt of ordered material at DGH, NOIDA and issue of satisfactory inspection report.	Request to modify the clause as follows: a) Delivery Period: Within 120 days from the date of issue of Letter of Award (LoA). 120 days (applicable for both items i.e. Active & Passive items) from the date of LoA will be considered as date of delivery. b) Installation & Commissioning: Within 60 days from the date of Intimation by DGH. Intimation Letter will be issued within 07 (Seven) days after receipt of ordered material at DGH, NOIDA and issue of satisfactory inspection report.	Refer Amendment SI no 11
24	Clause 2.		Payment Terms (i) 70% payment of the material value on receipt of ordered material at DGH, Noida & satisfactory physical inspection of the materials by DGH & proof of dispatch of material along with other relevant documents as indicated in the tender document. (ii) 20% of the material value along with Installation & commissioning charges will be released after successful installation & commissioning of the entire solution and issue of a certificate of acceptance of the System as per scope of work / specifications at Annexure-IV. (iii) 5% of the material value after successfully fulfilling warranty conditions as per clause-5 for first year. (iv) Balance 5% of the material value after successfully fulfilling warranty conditions as per clause-5 for second year.	Request DGH to modify this to following: (i) 70% payment of the material value on receipt of ordered material at DGH, Noida & satisfactory physical inspection of the materials by DGH & proof of dispatch of material along with other relevant documents as indicated in the tender document. (ii) 30% of the material value along with Installation & commissioning charges will be released after successful installation & commissioning of the entire solution and issue of a certificate of acceptance of the System as per scope of work / specifications at Annexure-IV	Refer Amendment SI no 12
25	Clause 6.(h)		Breakdown Maintenance: The system has to be attended within 24 hours from the time the fault is reported	Request DGH to kindly consider 72 hours from the time the fault is reported	No Change
26	Clause 6.(m)		Breakdown Maintenance: DGH will return all faulty parts and peripherals to the Contractor except Hard Disks	As per standard OEM practice, the Hard Disk needs to be returned to OEM for replacement.	Not agreed. Due to data confidentiality, hard disc may not be returned.
27	Clause 7.		Pre-dispatch Inspection	Request DGH to kindly carry the inspection at DGH premise in Noida	Refer Amendment SI no 14
28	Annexure – V Page 73, Pt. 6		Bidders must indicate the Country of Origin of their offered items. In case of award of job, successful bidder must have to submit Certificate of Country of Origin from the respective issuing authority of their country	Multiple Components are dispatched for each of the items listed under BOQ template S.I no: 1 to 4 in page 72. We suggest that we submit the country of origin and Manufacturer's Authorization Form only for major items, i.e.; – 1.1, 1.2, 1.3 and 3.0	No Change.

**Queries from M/s Christie**

Sl. No.	Reference	Specification	Query/Proposed Change	Remarks	DGH View/Comment/Reply
1			The word 6P is only available with Barco so request you to please ask for RGB laser projector which is the common technology available with Barco and Christie		The word 6P is not exclusive to Barco. Its generic term.
2			Brightness mentioned in the tender is 44000 lumens which is exactly the same as mentioned in Barco's datasheet of DP4K45L. Please accept $\pm 10\%$ deviation so that we can also participate in this.		Refer Amendment SI no 3

**Queries from M/s Genesis**

Sl. No.	Reference	Specification	Query/Proposed Change	Remarks	DGH View/Comment/Reply
1			The word 6P is only available with Barco so request you to please ask for RGB laser projector which is the common technology available with Barco and Christie and will have no effect in the desired results.		The word 6P is not exclusive to Barco. Its generic term.
2			Brightness mentioned in the tender is 44000 Lumens is exactly the same as mentioned in Barco's datasheet of DP4K45L. Kindly make it 40000 Lumens or more so that we can participate along with Christie which is one of the best in industry.		Refer Amendment SI no 3
3		The tender says that " In case the bidder is not a manufacturer, then during the last 10 years, the bidder should have executed/commissioned at least two (02) projects in oil & Gas Industry based on "lamp-less DLP 3D stereo technology" AND/OR "6P RGB Laser Projector for 6P Color3D use" at least 8 million pixels in 3D stereo together with semi-rigid / rigid rear projection screen and Display Management System for 3D visualization application"	We want to submit that only very few integrators in the world will have this experience which again will result in very few parties participating in the tender. We request that above point should be for bidder/OEM so that bidders can participate with world class OEM's who satisfy all the criteria asked above.		Refer Amendment SI no 1