

**TENDER SPECIFICATION FOR PROCUREMENT OF  
02 X UTILITY HELICOPTERS FOR BN- FY 2021-22 TO 2023-24**

**Introduction**

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| 1. | For better understanding and to evaluate all the prospective Bidders on same platform, the tender specification has been divided into three parts:<br>a. <b>Part-1:</b> General Information and Bidders' Responsibility.<br>b. <b>Part-2:</b> Operational and Technical Specification.<br>c. <b>Part-3:</b> General Terms and Conditions. |
| 2. | Prospective Bidders are to comply with the requirements and terms & conditions mentioned in Part-1, Part-2 and Part-3 of the tender specification. Bidders are also to provide performance/ technical data, brochure, specific figures and information as asked against each condition.   |
| 3. | Prospective Bidders are to submit their offer in two envelopes:<br>a. Technical Offer.<br>b. Financial Offer.   |
| 4. | Bidder shall quote all main equipment as mentioned in Part-2 in foreign currency on FOB basis.  |

**PART-1: GENERAL INFORMATION AND BIDDER'S RESPONSIBILITY**

Ser	Description of Technical Terms and Conditions of Tender	Remarks by Principal/ Manufacturer
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**General Information**

5.	BN plans to procure 02 X Utility Helicopters in the financial year 2021-2022 to 2023-2024. The Helicopters shall be designed to undertake Surface/ EEZ Surveillance and Patrol, limited Anti Surface Warfare Operation, secondary roles at sea (Anti-smuggling, Anti-piracy etc.), Maritime Search and Rescue (SAR), Casualty Evacuation (CASEVAC), Winch and Cargo Operation and limited Air Transportation.	To be mentioned
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**Eligibility of the Bidder**

6.	a. Bidder is to participate in the tender through their local agent enlisted in the Directorate General of Defense Purchase (DGDP) in Bangladesh. Bidder is to be a reputed Manufacturer of Helicopter or authorized by the Manufacturer. If the Bidder is a Manufacturer, the Bidder is to submit an authentication certificate mentioning that they are the original Manufacturer of Helicopter (mentioning brand and model of their produced Helicopter). If the Bidder is not a Manufacturer, the Bidder is to mention the name and address of the Manufacturer and must submit Manufacturer's Authorization Certificate including assurance of all contractual obligations along with the offer to establish that they are authorized to participate in the tender process.	To be mentioned
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	<p>b. Eligibility criteria for bidder/ manufacturer are as follows:</p> <p>(1) EASA/ FAA or equivalent international approval for production of helicopter.</p> <p>(2) Minimum 15 years of helicopter production experience.</p> <p>(3) Minimum 250 helicopter production experience and at least 100 helicopter export experience.</p> <p>(4) Offered helicopter should be in use by at least 02 (two) military/ maritime organization (name of organization to be mentioned). In addition, Bidder shall provide at least 10 organizations using the offered helicopter including their contact address.</p> <p>(5) Bidder/ manufacturer shall provide list of OEM support/ servicing center and service center authorized by OEM with offered quotation.</p>	
7.	Each offer should contain only one type of Helicopter. One Bidder may submit alternative offer. Each offer must be independent and complete in all respects.	To be mentioned
8.	The Bidder must provide Original Equipment Manufacturers (OEM) certificates of Helicopters and all other items at the time of delivery and same are to be shown to the Pre-shipment Inspection (PSI) Team.	To be mentioned
9.	It is the responsibility of the Bidder to have valid Government Assurance Certificate mentioning that there is no restriction from the respective Government to export the respective Helicopter and its fitted equipment to Bangladesh and export permit will be issued to the Bidder if contract is awarded. Bidder is to mention the International Traffic in Arms Regulations (ITAR) item (if any) and suitable alternatives fitted in the offered helicopters.	To be mentioned
<p><b><u>Bidder's Responsibility</u></b></p>		
10.	Bidder is to comply with all the conditions of this tender specification. Bidder is to submit full specification and relevant documents, latest brochures for the Helicopter and equipment along with the offer. The information in the brochure needs to be self-explanatory and must support and validate the information mentioned in the tender specification. Deviation or variation of information between the brochure and formally offered documents would be treated as non-compliance.	To be mentioned
11.	<p>a. Bidder is to provide detailed explanation of the technical matters if deemed necessary and cross-reference to relevant pages of their offer/ original supporting documents.</p> <p>b. Bidder is to provide performance/ technical data, specific figures and information as asked against each condition of tender</p>	

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	<p>specification.</p> <p>c. Bidder is to mention detailed compliance/ non-compliance and their agreement (as applicable) against each condition. BN preserves the right to reject those offers which merely mentioned 'Complied/ Agreed' without highlighting required information/ data/ figures/ graphs as asked against each condition.</p> <p>d. The Bidder, as part of technical evaluation, is to arrange minimum 05 hours evaluation flight for the performance evaluation of the offered Helicopters as 'Field Evaluation Trial' by Buyer's technical evaluation team at Bidder's cost (except international air fare, food and accommodation).</p>	To be mentioned
12.	<p>Bidder may request for clarification on any issue relating to the information contained in the tender specification from BN Headquarters (Directorate of Naval Aviation) in writing with an information copy to DGDP and apply for a pre-bid meeting at DGDP (if felt necessary) on pre-agreed schedule from Directorate of Naval Aviation and DGDP.</p>	To be mentioned
13.	<p><b><u>Pre-bid Meeting</u></b></p> <p>The Bidders are to attend a pre-bid meeting at DGDP within 04 (four) weeks from the day of floating the tender by DGDP. The purpose of the meeting will be to clarify issues related to the procurement of new Helicopter only. The Bidder is to forward their queries 10 (ten) days before pre-bid meeting.</p>	To be mentioned
14.	<p><b><u>Evaluation Procedure</u></b></p> <p>The bid proposals submitted by the Bidders will be evaluated primarily on the basis of (but not only) the following elements (not in any priority order). In addition to hard copy, Bidder is to submit the authenticated soft copy of the compliance sheet:</p> <p>a. Eligibility criteria for bidder.</p> <p>b. Responsiveness and compliance to the Technical Specifications and General Terms &amp; Conditions.</p> <p>c. Performance evaluation report of the offered helicopter by the PURCHASER'S team at Bidders/ Manufacturers premises.</p> <p>d. Bidder's international standard certification.</p> <p>e. Financial competitiveness.</p>	To be agreed
15.	<p><b><u>Presentation by Bidder</u></b></p> <p>Bidder will be required to give a presentation at Bidder's expense for any clarification at BN Headquarters as desired by BN any time during evaluation of the offers. In that case, Bidder is to submit necessary information and bio-data including photographs and passport for foreign nationals of the team to BN Headquarters (Directorate of Naval Aviation) with info copy to DGDP at least 02 weeks before the presentation. The presentation may cover more aspects than those which have been covered in the Bidder's proposal.</p>	To be mentioned

16.	<p><b><u>Additional Features Offered by the Bidder</u></b></p> <p>The Bidder may suggest and/ or offer features for the system additional to what is described in this tender schedule. In this case, Bidder has to explain the detailed advantage of that/ those features of the system.</p>	To be mentioned
17.	<p>BN reserves the right to accept or reject any bid or to terminate the bidding process and reject all bids at any time prior to contract award (without thereby incurring any liability to the Bidder).</p>	To be agreed
<p><b><u>PART-2: OPERATIONAL AND TECHNICAL SPECIFICATION</u></b></p>		
<p><b><u>General</u></b></p>		
18.	<p>a. Part-2 details out all essential operational and technical features. The offered Helicopters must meet the essential features related to dimensions, weapon and sensor capabilities, and payload carrying capacity. Non-compliance of these essential features will be considered as disqualification of the offer.</p> <p>b. If the proven design of the Helicopter and its fitted equipment deviates from stated essential features, the Bidder is to mention the same and may be considered during Technical Evaluation.</p>	To be mentioned
19.	<p><b><u>Basic Requirement</u></b></p> <p>a. The Helicopters should be:</p> <p>(1) Able to fulfill the operational requirements as mentioned in role/ mission.</p> <p>(2) Capable of operation in tropical/ extreme tropical conditions.</p> <p>(3) Maritime compatibility and designed for maritime operation.</p> <p>(4) Capable to land and take off from ship's deck.</p> <p>(5) Capable of annual usage of approximately 600 hrs (Each Helicopter).</p> <p>(6) The helicopter should be capable of landing and taking off from ships at sea state-4 (minimum). The bidder is to mention the operating limitations (roll, pitch, yaw) of helicopter for shipboard operation in various sea states.</p> <p>b. The Helicopters should be able to operate in all-weather condition from all BN ships containing Helicopter deck similar to the dimension of flight deck: 19.5 m X 9.20 m, hangar dimension: 14.5 m X 4.20 m X 4.06 m and larger.</p> <p>c. Name of the countries using the offered Helicopters is to be mentioned with documentary evidence.</p>	To be mentioned

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	<p>d. Basic Helicopters are to include all standard features of the offered model Helicopters as mentioned in official brochure/ documents and price of these features are to be included in the price of basic Helicopter. Deviation or variation of information between the brochures and offered tender documents may be treated as non-compliance.</p> <p><b>Note:</b> Necessary certificate by the Manufacturer of the Helicopter to be provided in this regard.</p>	
20.	<b>Quantity.</b> 02 (Two) complete helicopters	
21.	<b>Year of Manufacture.</b> 2021 or later. Helicopters are to be brand new and of latest model. Engines, rotor blades, all other equipment and vendor items are also to be brand new, latest model and manufactured not before 2020. The Helicopters and all other fitted equipment should have full life at the time of delivery.	To be mentioned
22.	<p><b>Country of Origin and Manufacture</b></p> <p>a. The Offered Helicopter should be from a proven Helicopter Manufacturer country (EU, USA, Canada or UK).</p> <p>b. All major avionics, sensors and systems fitted onboard the Helicopter are to be from a proven avionics Manufacturer of UK/ European/ North American origin.</p>	To be mentioned
23.	<p><b>Make, Model and Standard</b></p> <p>a. The Bidder is to mention the make and model of their offered Helicopter. The Helicopter and all major items/ equipment/ components are to be manufactured as per the 'Type Certification' and relevant International Aviation Standard (e.g. EASA/FAA or equivalent).</p> <p>b. Make, Model and Country of origin/ manufacture of all major equipment are to be mentioned.</p>	To be mentioned
24.	<p><b>Compatibility</b></p> <p>The Helicopters shall be compatible with the available ATC transponder, communication, navigation facilities of Civil Aviation Authority of Bangladesh (CAAB).</p>	
25.	<p><b>Environmental Condition</b></p> <p>The offered helicopters should be capable of operating in the following weather conditions:</p> <p>a. Atmospheric temp : 0°C to +55°C</p> <p>b. Sea water temp : -2°C to +35°C</p> <p>c. Relative Humidity : Up to 100%</p> <p>d. Wind Speed : 30 knots (minimum)</p> <p>e. Sea State : 4 (minimum)</p>	To be mentioned

26.	<b><u>Role/ Mission</u></b>	
	<p>a. Surface/ EEZ Surveillance and Patrol.</p> <p>b. Limited Anti Surface Warfare (ASuW) Operation.</p> <p>c. Maritime Search and Rescue (SAR).</p> <p>d. CASEVAC/ MEDEVAC (Casualty/ Medical Evacuation).</p> <p>e. Winch and Cargo Operation.</p> <p>f. Limited Air Transportation.</p> <p>Any other secondary roles at sea (Such as Anti-smuggling, Anti-piracy etc.).</p>	To be mentioned

**Helicopter's Operational Characteristics**

27.	The Helicopter shall have the following operational characteristics:		
	<b><u>Ser</u></b>	<b><u>Characteristics</u></b>	<b><u>Details</u></b>
	a.	Cruise Speed	Cruising Speed of at least 120 knots in full configuration.
	b.	Max Speed (VNE)	Max speed of at least 150 knots.
	c.	Range (Ferry)	Max Ferry range to be mentioned in following conditions: (1) 02 Pilot + 01 Air gunner + General Purpose Machine Gun. (2) 02 Pilot + 02 Aircrew + Winch + Stretcher. (3) 02 Pilot + 01 Medical Specialist + Medical Configuration. (4) 02 Pilot + 06 Passengers.
	d.	Ceiling	Not less than 15,000 ft.
	e.	Maximum Takeoff Weight	Above 3000 kg.
	f.	External Load Carrying (Cargo Hook Capacity)	Not less than 1000 Kg.
	g.	Endurance	(1) With only 02 aircrew onboard - 03 hrs or above. (2) In following mission configuration max ferry range to be mentioned: (a) 04 Aircrew + SAR configuration (b) 04 Aircrew + CASEVAC/ MEDEVAC (c) 03 Aircrew + Hoist fitted (d) 02 Aircrew + 06 Passenger onboard
	h.	Dimension	Length overall: 12 – 13.5 m. Length: 11-12.5 m Width: 2 – 3.5 m. Height: 3 – 3.8 m. Rotor Diameter: 10 - 11 m.
	j.	Crew and Pax Capacity	(1) Pilots - 02. (2) Passenger/ Rear crew – minimum 06 in passenger configuration. (3) The bidder is to mention designed

			<p>composition and arrangement of rear crew in full configuration (Including all mission equipment) for the offered helicopters and furnish detailed information.                  (4) Standard rear crew/ pax disposition in different configuration of offered helicopter is to be mentioned.</p>	
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**Helicopters Technical Characteristics**

<p>28.</p>	<p><b><u>Airframe</u></b></p> <p>The Helicopter is to meet the following requirements:</p> <ul style="list-style-type: none"> <li>a. Airframe of light alloy and composite construction and should be capable of operating in maritime environment.</li> <li>b. The material of glass fairing assemblies at different places of airframe (i.e. landing light, search light, windshield etc.) should be firm enough to withstand environmental FOD and natural calamity.</li> <li>c. Designed for corrosion resistance in maritime environment.</li> <li>d. Crashworthy fuselage in composite or suitable material.</li> <li>e. External painting in "Grey" with BN markings compatible in corrosive marine environment.</li> <li>f. The Airframe shall be capable of with standing/ surviving vertical crash impact. The sustainable limit shall be mentioned with the offer quotation (in g).</li> <li>g. The assigned service life to be minimum 25 years.</li> <li>h. Two jettison able Pilot doors left hand (LH) and right hand (RH).</li> <li>j. Two in-flight operable passenger doors/ sliding (LH and RH).</li> <li>k. Removable fairing and cowlings, for complete accessibility to the controls and drive components.</li> <li>l. The Aircraft Landing Gear shall be compatible with ship operations and bidder is to mention the maximum impact absorbing capacity of helicopter during emergency landing at Max Take-off weight.</li> <li>m. Structural inspection cycle is to be mentioned.</li> <li>n. The airframe should provide minimum RCS (Radar Cross Section).</li> </ul>	<p>To be mentioned</p>
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<p>29.</p>	<p><b><u>Under Carriage and Safety System</u></b></p> <p>The Helicopters shall have:</p> <ol style="list-style-type: none"> <li>a. Wheel type retractable tri-cycle landing gear capable of landing and taking off from ship's deck. G tolerance of the landing gear is to be mentioned.</li> <li>b. Provision for Emergency Floatation System.</li> <li>c. Adequate lashing points for safe parking and mooring on deck.</li> </ol>	<p>To be mentioned</p>
<p>30.</p>	<p><b><u>Propulsion System</u></b></p> <ol style="list-style-type: none"> <li>a. No of engine - 02 (Two) (Turbo Shaft).</li> <li>b. The engine should be manufactured by reputed engine Manufacturer of proven design and in operation with considerable number of Users. The engine ratings and related specifications are to be mentioned.</li> <li>c. The Engine shall have:             <ol style="list-style-type: none"> <li>(1) Full Authority Digital Engine Control (FADEC), capable of hot and humid weather operation.</li> <li>(2) Engine start system should be fitted as such to allow startup with and without the use of external power.</li> <li>(3) Capability to continue takeoff and landing with single engine operational in case of One Engine Failure while already in flight.</li> <li>(4) Fuel consumption per engine per hour is to be mentioned.</li> <li>(5) Engine fire detection and fire-extinguishing system should be installed.</li> <li>(6) Magnetic chip detectors should be installed.</li> <li>(7) In-flight starting capability.</li> <li>(8) Engine starting and continuous operation with manual mode (To be mentioned).</li> <li>(9) TBO of Engine should be 3000 hrs or more.</li> </ol> </li> <li>d. Engine hot section inspection and engine overhauling cycle are to be mentioned.</li> </ol>	<p>To be mentioned</p>
<p>31.</p>	<p><b><u>Rotor System</u></b></p> <ol style="list-style-type: none"> <li>a. <b><u>Main Rotor.</u></b> The Main Rotor Blades of Helicopters shall have:             <ol style="list-style-type: none"> <li>(1) Minimum fatigue life 10000 flight hours.</li> <li>(2) The main rotor blades made of composite material.</li> <li>(3) Provision for Blade folding configuration in the</li> </ol> </li> </ol>	<p>To be mentioned</p>

	<p>fuselage along with necessary blade folding kit.</p> <p>(4) The provision of optical blade tracker (OPT) to track the rotor blade both at day and night is to be mentioned.</p> <p>b. <b><u>Tail rotor.</u></b> Minimum fatigue life of tail rotor blade is to be mentioned.</p> <p>c. <b><u>Transmission System.</u></b></p> <p>(1) Main Gear Box is to be designed with minimum 30 minutes dry run capabilities up on total loss of lubrication.</p> <p>(2) Chip detector with chip burning facilities is to be installed in main and tail rotor gear box.</p> <p>(3) Overhauling cycle of Main and Tail rotor gear box are to be mentioned.</p>	
32.	<p><b><u>Fuel System</u></b></p> <p>a. The Helicopters shall have:</p> <p>(1) Fully automatic fuel transfer with redundant delivery system with pressure and suction.</p> <p>(2) De-fueling capabilities should be available.</p> <p>(3) Crashworthy fuel system.</p> <p>(4) Additional fuel tank installation provision along with tank should be available (optional).</p> <p>(5) Parameters regarding fuel system (fuel flow rate, quantity etc.) should be displayed in cockpit.</p> <p>b. The fuel tank arrangement should be in such configuration so that minimum 01 X stretcher can be accommodated in passenger compartment.</p>	To be mentioned
33.	<p><b><u>Hydraulic System</u></b></p> <p>The Helicopter shall include both main and emergency hydraulic system.</p>	To be mentioned
34.	<p><b><u>Petroleum, Oil and Lubricant</u></b></p> <p>The helicopters shall use Jet A1 and JP-5 fuel or equivalent and other recommended Oil and Lubricant (POL) grades and hydraulic fluid for the operation and maintenance. The bidder is to provide the recommended list of fuel, oil and lubricant can be used in the offered helicopter.</p>	To be mentioned
35.	<p><b><u>Electrical System</u></b></p> <p>The Helicopters are to be fitted with following:</p> <p>a. 02 X Generator with redundancy system (battery). The detail (manufacturer, type, model, specification etc.) of the generator is to be mentioned with the offer quotation.</p> <p>b. The helicopters should be fitted with a rechargeable Ni-Cd</p>	

	<p>battery of adequate capacity along with onboard charger to provide power support for a considerable period (minimum 30 minutes in flight) in order to ensure safe operation of the essential systems under an emergency situation. The detail (manufacturer, type, model, specification etc.) of the battery is to be mentioned with the offer quotation.</p> <p>c. The helicopters should be fitted with external power receptacles to provide electrical power from Ground Power Unit (GPU). The starting current rating for engine starting is to be mentioned. The bidder is to provide the list of the recommended Ground Power Unit (GPU) compatible with offered helicopter.</p>	<p>To be mentioned</p>
<p>36.</p>	<p><b><u>Cockpit Arrangement and Flight Control System</u></b></p> <p>Each Helicopter shall have following arrangements:</p> <p>a. Helicopters shall be of two pilots operated for normal operation.</p> <p>b. Pilots seating arrangement is to be side by side.</p> <p>c. Seats are to be crashworthy. Seats should have the facility for fore/ aft and vertical adjustment as required by the pilot. Shoulder harness is to be fitted with crash inertia reel.</p> <p>d. Standard instrument panel for Pilot and Co-Pilot with Dual Pilot Control System and Automatic Flight Control System.</p> <p>e. Cockpit panel should have all standard flight instruments. All the standard flight data including propulsion data is to be presented in the cockpit.</p> <p>f. Cockpit shall be ergonomically structured. The design of cockpit shall be such that on training or on operational role, pilot may perform the duties with ease and workload is minimized with rational arrangement of the system. The Bidder is to provide the cockpit layout in color (printed and soft copy).</p> <p>g. Digitalized/ Glass cockpit with colored Primary Flight Display (PFD) and Multi-Functional Display (MFD). PFD and MFD shall be night vision compatible and sunlight readable.</p> <p>h. The instrument panel shall have adequate space to accommodate future options.</p> <p>j. Certification for Single-Pilot Instrument Flight Rules (SPIFR) and for night VFR operations using Generation III Night Vision Goggles (NVG).</p> <p>k. 4-axis digital autopilot.</p> <p>l. Mechanical/ manual control for backup in case of failure of autopilot.</p> <p>m. Cockpit Yaw paddles with fore and aft adjustment facility.</p> <p>n. Provision of all flight essential controls, instruments (including standby) and displays to both Pilot and Co-pilot side. All the standard flight data including ASI, VVI, HSI, Directional</p>	<p>To be mentioned</p>

	<p>Indicator, Gyro Magnetic Compass etc. and propulsion data are also to be displayed in the cockpit.</p> <p>p. Provision of displaying critical system failure and critical flight condition in Cockpit.</p> <p>q. Caution and warning lights integrated with audio warning.</p> <p>r. Stowage pocket to store the essential flight assisting items like maps, chart etc. in cockpit.</p> <p>s. Spot light on the each side of the overhead console.</p>	
<p>37.</p>	<p><b><u>Lighting System</u></b></p> <p>a. The Helicopters shall include normal operation and Generation III NVG operation compatible cockpit and cabin internal lighting system.</p> <p>b. The Helicopters are to be equipped with following exterior LED lights:</p> <ul style="list-style-type: none"> <li>(1) Standard navigation lights.</li> <li>(2) High visibility anti-collision light.</li> <li>(3) Tail lights.</li> <li>(4) Landing light and Search light.</li> </ul>	<p>To be mentioned</p>
<p>38.</p>	<p><b><u>Additional/ Utility System</u></b></p> <p>The helicopters shall have all standard (not limited to) built-in equipment including following:</p> <ul style="list-style-type: none"> <li>a. Environmental Control System (Air Condition)</li> <li>b. Heater System (for pitot tube).</li> <li>c. Defogging System.</li> <li>d. Wind Shield Wiper/ Washer System.</li> <li>e. Main Rotor Brake System.</li> </ul>	<p>To be mentioned</p>
<p><b><u>Avionics</u></b></p>		
<p>39.</p>	<p><b><u>Basic Avionics (NVG Compatible)</u></b></p> <p>a. Each Helicopter shall have Integrated Display System (IDS) (PFD, MFD and EDU) to display necessary and required parameters and flight information. IDS should also display the following instrument reading:</p> <ul style="list-style-type: none"> <li>(1) Air Speed Indicator</li> <li>(2) Vertical Velocity Indicator</li> <li>(3) Standby Magnetic compass</li> <li>(4) VOR/ ILS (VHF Omni directional Range/ Instrument Landing System) or Similar type integrated equipment</li> <li>(5) DME (Distance Measuring Equipment) or other integrated equipment that provides similar type of data</li> <li>(6) Attitude Indicator (Artificial Horizon)</li> <li>(7) Barometric Altimeter</li> </ul> <p>b. Few analog indicators (mentioned below) is to be installed as optional for redundancy during total electrical failure:</p> <ul style="list-style-type: none"> <li>(1) Air Speed Indicator - 01</li> </ul>	<p>To be mentioned</p>

	<p>(2) Vertical Velocity Indicator - 01                  (3) Standby Magnetic compass - 01                  (4) Attitude Indicator (Artificial Horizon) - 01                  (5) Barometric Altimeter - 02</p> <p><b>Note:</b></p> <p>1. In case any avionics is not integrated with PFD/ MFD, separate display is to be provided.</p> <p>2. Standard designed fittings of avionics of offered Helicopters are to be mentioned.</p> <p>3. Brand, model and manufacturer of all the aforementioned avionics item are to be mentioned along with specification.</p> <p>4. Avionics Architecture (Federated Digital, Integrated Modular etc), Packages (Honeywell-Kings, Rockwell-Collins, Thales etc.) is to be mentioned in the offer.</p>									
40.	<p><b><u>Standard Navigation Equipment/ System</u></b></p> <p>Each helicopter shall have following Standard Navigation Equipment/ System:</p> <p>a. Direction Indicator (DI) (Shall be included in PFD or MFD)                  b. Radar/ Radio Altimeter- 01                  c. GPS - 01                  d. Automatic Direction Finder or similar type integrated equipment - 01                  e. NDB receiver - 01                  f. ATC Transponder (Mode S) - 01                  g. Marker Beacon Receiver - 01                  h. Weather Radar - 01                  j. Moving Map - 01                  k. Flight Management System (FMS) - 02                  l. Helicopter Terrain Awareness Warning System (HTAWS) - 01                  m. Traffic Collision and Avoidance System (TCAS) – 01</p> <p><b>Note:</b>                  Brand, model and manufacturer of all the aforementioned avionics item are to be mentioned along with specification.</p>	To be mentioned								
41.	<p><b><u>Radio and Communication Aid</u></b></p> <p>Each Helicopter shall have following Radio and Communication Equipment/ sets:</p> <table border="1" data-bbox="236 1832 1174 2103"> <thead> <tr> <th>Ser</th> <th>Name of Item</th> <th>Quantity</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>a.</td> <td>VHF Radio Set</td> <td>02</td> <td>Capable of communicating with Air traffic, Air Traffic Control and Aircraft Operating Ships. Power output to be mentioned.</td> </tr> </tbody> </table>	Ser	Name of Item	Quantity	Remarks	a.	VHF Radio Set	02	Capable of communicating with Air traffic, Air Traffic Control and Aircraft Operating Ships. Power output to be mentioned.	
Ser	Name of Item	Quantity	Remarks							
a.	VHF Radio Set	02	Capable of communicating with Air traffic, Air Traffic Control and Aircraft Operating Ships. Power output to be mentioned.							

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b.	VHF & UHF Radio Set	01	<p>a. Capable of communicating with naval ships and ATC tower. Power output to be mentioned.</p> <p>b. VHF/ UHF (Normal Mode, Tactical mode/ military mode/ ECCM/ Anti-jamming Capability).</p> <p>c. Power output in AM and FM mode to be mentioned</p>	To be mentioned
c.	HF Radio Set	01	Minimum output Low – 50 watts, Medium – 100 watts, High – 200 watts. Capable of communicating with naval ships and ATC tower.	
d.	Internal Communication System (ICS) or Radio Management System (RMS)	As required	Audio Control System with headset point/ facility to communicate between Pilot, Co-pilot and 06 x Rear Crew.	
e.	Cockpit Voice Recorder (CVR) and Flight Data Recorder (FDR)	01	<p>a. It should have the capability to record at least 120 minutes audio data and 25-hour flight data. Following Ground Support equipment needs to be provided with the item:</p> <p>(1) Rugged Laptop with interfacing cables and adapters.</p> <p>(2) Ground support software with helicopter database for data download and analysis.</p> <p>b. ULB should have min 90 days transmission capability.</p>	
f.	Headset	08	<p>a. “Bose A20 Aviation Headset” or equivalent.</p> <p>b. Detail specification of the offered headsets is to be mentioned.</p>	

g.	ELT (Emergency Locator Transmitter) or equivalent equipment	01	ELT should include the following: (1) Country identification code is to be embedded. (2) Registration of ELT with proper governing authority.	
h.	Loud Hailer with Siren (Trainable)	01	For maritime patrol and search and rescue operation.	
<p><b>Note:</b></p> <p>1. All aforementioned radio sets and communication aids shall have record of use onboard offered Helicopters and name of user/ Maritime Organization to be mentioned.</p> <p>2. Standard/ designed radio sets and communication aids of offered Helicopters is to be mentioned.</p> <p>3. Brand, model and manufacturer of all aforementioned avionics item are to be mentioned along with specification.</p>				

**Mission Sensors, Equipment and Weapon-fit**

42.	<p><b><u>Electro Optic and IR Detection Device with Portable Display</u></b></p> <p>a. The Helicopter shall have suitable Electro Optic IR Detection System/ with associated airborne systems to achieve accurate imagery/ visual information of target under low light and at night operations. Electro Optic and IR detection System shall have following specifications:</p> <p>(1) <b><u>Thermal imaging (IR Camera).</u></b></p> <p>(a) <b><u>Sensor Type.</u></b> New generation. Array range and resolution is to be mentioned.</p> <p>(b) <b><u>Field of View (FOV).</u></b> Wide, medium and narrow (angle to be mentioned).</p> <p>(c) <b><u>Zoom.</u></b> Optical/ E Zoom options to be mentioned.</p> <p>(2) <b><u>Daylight Imaging (TV Camera).</u></b></p> <p>(a) <b><u>Sensor Type.</u></b> HD CMOS.</p> <p>(b) <b><u>Field of View (FOV).</u></b> Continuous zoom (angle to be mentioned).</p> <p>(c) <b><u>Resolution.</u></b> 1920 x 1080 (Full HD).</p> <p>(3) <b><u>Daylight and lowlight Spotter.</u></b> Color, full HD, minimum 2xE Zoom.</p>	To be mentioned
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	<p>(4) <b>Laser Range Finder (Optional).</b></p> <p>b. EO/ IR system is to have portable display system which can be installed and removed in the passenger cabin as per mission requirement. A parallel display connection is to be provided in the cockpit.</p> <p>c. Real time HD video downlink equipment for helicopter is to be provided with EO/ IR system.</p> <p>d. Necessary ground support equipment is to be provided with EO/ IR system.</p> <p>e. The Bidder is to provide all designed parameters and functional capabilities of the offered Electro Optic and IR Detection System as per OEM manual/ document.</p> <p>f. List of user/ maritime organization is to be mentioned.</p> <p>g. Bidder is to clearly mention export control issue of the item (if any).</p>	
<p>43.</p>	<p><b><u>Search Light</u></b></p> <p>a. The helicopters are to be provisioned and fitted with portable search light (Night Sun) to carry out Search and Rescue (SAR) operation at night.</p> <p>b. Preference shall be given to the existing search light (Night Sun, SX16, Spectrolab, USA) of BN AW109E helicopter. However, in addition the bidder shall propose updated suitable version of searchlight with offer.</p> <p>c. The Bidder is to provide all designed parameters and functional capabilities of the offered search light (Night Sun) System as per OEM manual/ document.</p> <p>d. List of user/ maritime organization is to be mentioned.</p> <p>e. Bidder is to quote the price of provisioning and equipment separately.</p>	<p>To be mentioned</p>
<p>44.</p>	<p><b><u>Rescue Hoist (Winch)</u></b></p> <p>a. The helicopters are to be provisioned and fitted with portable Rescue Hoist (Winch) to carry out Search and Rescue (SAR) operation. Type and specification of the rescue hoist are to be mentioned.</p> <p>b. Load carrying capacity of the rescue hoist should be at least 600 lbs. Preference shall be given to the existing Rescue Hoist (Winch, P/N: BL20200-110, Breeze Eastern, USA) of BN AW109E helicopter. However, in addition the bidder shall propose updated suitable version of rescue hoist with offer quotation.</p>	<p>To be mentioned</p>

	<p>c. All associated gears, equipment, fittings, straps, wires, hooks, tools etc. for safe operation and operator level maintenance are to be quoted separately.</p> <p>d. The Bidder is to provide all designed parameters and functional capabilities of the offered Rescue Hoist (Winch) system as per OEM manual/ document.</p> <p>e. List of user/ maritime organization is to be mentioned.</p> <p>f. Bidder is to quote the price of provisioning and equipment separately.</p>	
<p>45.</p>	<p><b><u>Cargo Hook</u></b></p> <p>a. The helicopters are to be provisioned and fitted with portable Cargo Hook including net and sling to carry load externally.</p> <p>b. Preference shall be given to the existing Cargo Hook (P/N: 232-289-00, Onboard System International, USA) of BN AW109E helicopter. However, in addition the bidder shall propose updated suitable version of cargo hook with offer quotation.</p> <p>c. The cargo hooks shall have net and sling with minimum capacity of 1000 kg.</p> <p>d. Bidder is to quote the price of provisioning and equipment separately.</p>	<p>To be mentioned</p>
<p>46.</p>	<p><b><u>Emergency Floats</u></b></p> <p>a. The helicopters are to be provisioned and fitted with emergency floatation gear.</p> <p>b. Preference shall be given to the existing emergency floats (P/N: 109-0900-15-113/ 114/ 115/ 116, Aerosekur, Italy) same Manufacturer of BN AW109E helicopter. However, in addition the bidder shall propose updated suitable version of emergency floats with offer quotation.</p> <p>c. The bidder is to provide list of recommended emergency flotation gear mentioning cartridge/ activation system, service life, servicing interval and schedule maintenance frequency along with cost. The purchaser will select suitable flotation gear as per the requirement.</p>	<p>To be mentioned</p>
<p>47.</p>	<p><b><u>TACAN Receiver</u></b></p> <p>a. The helicopters are to be fitted with TACAN receiver for smooth conduct of maritime operation at sea. The TACAN receiver shall be compatible to interface with analog and digital flight instruments system. It should be compatible with any interrogator station installed onboard warship.</p> <p>b. The Bidder is to provide all technical parameters and</p>	<p>To be mentioned</p>

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	functional capabilities of the offered TACAN receiver System as per OEM manual/ document.	
48.	<p><b><u>Helmets with Microphone (NVG Generation III Compatible)</u></b></p> <p>Bidder is to provide aircrew helmets with compatible NVG and standard accessories for each helicopter. Detail specification of the offered Helmets along with price is to be quoted separately for 08 x helmets.</p>	To be mentioned
49.	<p><b><u>Satellite Tracking System and Satellite Phone</u></b></p> <p>a. Each helicopter is to be fitted with Satellite tracking system and satellite phone compatible with global satellite operator such as INMARSAT, IRIDIUM etc. Necessary brochure and related technical specification are to be submitted with the offer.</p> <p>b. This system is to be capable of combining a portable tracking unit, with a web-based client interface enabling users to access their flight following and tracking details from anywhere at any time via the internet. It should also have the capability of two-way global communication.</p> <p>c. The Bidder is to provide all designed parameters and functional capabilities of the offered Satellite Tracking System and Satellite phone as per OEM manual/ document.</p>	To be mentioned
50.	<p><b><u>Rappelling</u></b></p> <p>a. The Helicopter shall have provisions for Rappelling.</p> <p>b. All associated gears, equipment, fittings, straps, rope, tools etc. for safe operation and operator level maintenance are to be provided.</p>	To be mentioned
51.	<p><b><u>Weapon System</u></b></p> <p>a. Each Helicopter shall have provisions for Light/ Heavy Machine Gun Pintle on both side to support limited surface interdiction operations.</p> <p>b. Preference shall be given to existing BN Gun Pintle (P/N: 4015103-00) system. However, in addition the bidder shall propose updated suitable version of gun pintle with offer quotation.</p>	To be mentioned
52.	<p><b><u>Provision of Installation of Sensor in Future (Optional).</u></b></p> <p>The helicopters shall have 'provision' for installation/ integration of following sensors/ system in future:</p> <p>a. Data Link (Model- Customized Bangla-22, Technobit, Spain).</p> <p>b. Suitable IFF (Model-ST36A) system designed and implemented in BN.</p>	To be mentioned

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53.	<p><b><u>Standard Accessories.</u></b> Standard accessories must include all items and accessories, which are required for operation and regular maintenance of the helicopter whether those are mentioned in the specification or not. A list of such items/ accessories is to be provided with the quotation (price to be included in basic helicopter price).</p>	To be mentioned
54.	<p><b><u>Blade Folding Kit</u></b></p> <p>a. The helicopters are to be provisioned and supplied with blade folding kit for safe stowage of helicopters inside ships hangar during embarked operation.</p> <p>b. Necessary modification of the offered helicopter is to be done by the supplier prior shipment.</p>	To be mentioned
55.	<p><b><u>Weather RADAR.</u></b> The Helicopter shall have compatible Weather Radar Configuration:</p> <p>a. Having ground mapping, sea search, weather detection features.</p> <p>b. REACT – Rain Echo Alternation Compensation Technique.</p> <p>c. HRGM – High Resolution Ground Mapping automate 3D volumetric scan.</p>	To be mentioned
56.	<p><b><u>CBT and VMT System (optional).</u></b> Computer Based Training (CBT) system for Pilot (if any) and Virtual Maintenance Training (VMT) system for maintainer (if any) are to be provided.</p>	To be mentioned
<p><b><u>Other Conditions/ Requirements</u></b></p>		
57.	<p><b><u>Crew Cabin</u></b></p> <p>a. <b><u>Seating Capacity.</u></b> 02 X Pilots and 06 X Passengers (minimum) seating arrangement (Standard crashworthy seats). Two sets seat covers (Pilot, Co-pilot and rear crew) are to be provided for each helicopter.</p> <p>b. <b><u>VIP Seat (optional).</u></b> Two sets of additional VIP seat configuration (Multiple color options) should also be quoted with offer as optional item.</p> <p>c. <b><u>Stretchers.</u></b> Provision of fitting minimum 01 stretchers and other associated medical equipment for CASEVAC shall be quoted along with possible various configuration. Suitable stretchers are to be supplied accordingly.</p> <p>d. <b><u>Life Saving Equipment.</u></b> A standard set of life saving equipment for emergency landing at sea is to be supplied with the helicopters. The maintenance/ servicing requirements as well as servicing intervals are to be mentioned. Necessary brochure/ catalogue is to be provided with offer. The set shall include following:</p> <p>(1) <b><u>Life Jackets.</u></b> For both Pilot, Co-pilot and Rear</p>	To be mentioned

	<p>Crew.</p> <p>(2) <b>Life Rafts.</b> One each for Pilot and Co-pilot. Additional life raft for all other crew/ passengers.</p> <p>e. <b>Fire Extinguisher.</b> At least two (02) portable fire extinguishers, one in the cabin and another in the cockpit.</p> <p>g. 01x standard First Aid Kit box for passenger compartment.</p>	
58.	<p><b><u>Mooring, Lashing and Fly Away Kit</u></b></p> <p>a. Mooring and lashing items/ equipment (Minimum 08 sets) suitable for securing the helicopter on ground and in ship's deck are to be provided.</p> <p>b. Standard accessories (02 sets of Fly away kit for each helicopter) are to be supplied. A list of accessories is to be submitted with the offer.</p>	To be mentioned
<b><u>Integrated Logistic Support</u></b>		
59.	<p><b><u>Spares and Consumables</u></b></p> <p>a. <b><u>Spares.</u></b></p> <p>(1) <b><u>Major Spares (Optional).</u></b> Following additional major components are to be supplied and item wise price to be quoted separately by the Bidder:</p> <p>(a) 01 x Engine.</p> <p>(b) 04 x Starter-Generator.</p> <p>(c) 01 x Main Gear Box.</p> <p>(d) 01 x Tail Rotor Gear Box.</p> <p>(e) 02 x Main Rotor Blade.</p> <p>(f) 02 x Tail Rotor Blade.</p> <p>(g) 02 x Battery</p> <p>(h) 01 x Weather Radar Transceiver unit</p> <p>(j) 02 x PFD</p> <p>(k) 02 x MFD</p> <p>(l) 02 x EDU</p> <p>(m) 01 x GPS Receiver</p> <p>(n) 01 x Gyro set (Vertical, Directional, Rate etc.)</p> <p>(2) <b><u>Spares for 02 (two) years maintenance (Optional).</u></b> The Bidder shall quote list of spares including sensors, mission equipment and avionics</p>	To be mentioned

	<p>for Scheduled Maintenance with item wise price of individual item required, which are to be maintained by BN for 02 (two) years of operations after the warranty period is over, keeping in view the rate of flying in BN around 350 hours per Helicopter per year.</p> <p>(3) <b><u>Spares for 05 (five) years maintenance (Optional)</u></b>. The Bidder shall quote list of spares including sensors, mission equipment and avionics for Scheduled Maintenance with item wise price of individual item required, which are to be maintained by BN for 05 (five) years of operations after the warranty period is over, keeping in view the rate of flying in BN around 350 hours per Helicopter per year.</p> <p>b. <b><u>Consumables (Optional)</u></b>.</p> <p>(1) <b><u>Consumables for warranty period</u></b>. The Bidder shall Supply all required Consumables for maintenance of offered Helicopters during warranty period. The bidder is to submit the list with technical and financial offer.</p> <p>(2) <b><u>Consumables for 01 (one) year after warranty period</u></b>. The Bidder shall separately quote item wise price of all required consumables for 01 (one) year of maintenance on completion of warranty period.</p>	
<p>60.</p>	<p><b><u>Ground Support Equipment (GSE), Special Tools &amp; Test Equipment (Optional)</u></b></p> <p>a. One set of GSE including Ground Power Unit (GPU) and Handling Equipment for safe operation and maintenance of the offered Helicopters are to be quoted as optional item.</p> <p>b. One set of all Special Tools and Test Equipment required for the maintenance and periodic inspection (Up to full cycle) of the offered Helicopters, engine and all major equipment (Avionic), in accordance with the Helicopters stated maintenance policy are to be quoted as optional item.</p> <p>c. The list of GSE, Handling Equipment, Special Tools and Test Equipment along with the make, model, brand and indicative part numbers are to be submitted along with the offer. If the part number is updated between proposal submission and Helicopter delivery, the Bidder is to reflect the delivered configuration and this shall be at no additional cost to BN.</p> <p>d. The bidder shall confirm that all GSE, special tools and test equipment are to be supplied with associated Component</p>	<p>To be mentioned</p>

	<p>Maintenance Manuals (CMM).</p> <p>e. The bidder shall provide the complete list of GSE, tools, special tools and test equipment along with price with the offered quotation. The purchaser shall decide the items (GSE, tools, special tools and test equipment) to be procured from the offered list.</p> <p>f. The bidder is to mention calibration frequency chart of the tools/ equipment need to be calibrated after certain interval. The chart shall contain: Name of the equipment, Manufacturer address &amp; Country, Calibration Frequency, authorized center for Calibration.</p> <p>g. The bidder is to offer suitable crash and rescue kit (if any) to rescue the pilot and passengers in case of any accident. The bidder is to quote the price separately as optional item.</p>	
61.	<p><b><u>Nomenclatures of Major Equipment</u></b></p> <p>The part number and names of major equipment are to be fitted/ placed/ tagged with appropriate technical nomenclatures on respective item/ equipment.</p>	To be mentioned
62.	<p><b><u>Technical Orders (TO), Bulletin, Manuals and Publications</u></b></p> <p>a. The Bidder is to provide 01 (one) set of TOs, Manuals, Publications, Parts Catalogue etc. with each Helicopter in hard copy and soft copy (interactive), as applicable for the offered Helicopter.</p> <p>b. The Bidder shall confirm lifetime subscription for access to the web based technical notifications.</p> <p>c. The Manufacturer is to inform BN about any up-gradation of the items, changes of components used in the Helicopter in the shortest possible time. In this regard, BN is required to know the exact system that is followed by the Manufacturer through the automatic notification distribution.</p> <p>d. The TOs, Manuals and publications are to be in English language.</p> <p>e. Delivery of TOs/ Bulletins etc. in hard copy and soft copy are to be provided life time for free of cost.</p> <p>f. The list of publications/ technical documents (to be supplied) is to be provided along with the offer.</p> <p>g. All mandatory and other 'Service Bulletins'/ Modification those are applicable/ mentioned in the bulletins for Helicopter already due/ will fall due during the delivery of the items are to be complied with at Bidders expenses. Necessary entries to that effect</p>	To be mentioned

are to be made in the logbook in English language. Copies of these Bulletins/ Modifications in English are to be handed over to BN during the acceptance of the Helicopter. The Bidder must continue to provide technical brochure/ manual/ bulletin concerning airworthiness and safety-related issues in future in both soft copy and hard copy at free of cost.

h. The Supplier is expected to provide following TOs, Publications, Parts Catalogue etc. (both hard and soft copy) with the Helicopter:

- (1) Rotorcraft Flight Manual (RFM) or similar manual.
- (2) Pilots Operating Hand Book.
- (3) Master Equipment List (MEL) and Master Minimum Equipment List (MMEL).
- (4) Pilots Checklist (at least 10 copies).
- (5) Student Study Guide for Pilots and Rear Crew.
- (6) Pilots Guide/ Operating/ User Manuals for all Mission Equipment (Electro Optic and IR Detection, armament system etc.).
- (7) Interactive Electronic Technical Publications (IETP)/ Aircraft Maintenance Manual (AMM).
- (8) Illustrated Parts Catalogue (IPC) for Airframe, Engine, Avionics, LSE and other mission equipment.
- (9) Wiring Diagram Manual (WDM).
- (10) Structure Repair Manual (SRM).
- (11) Structure Inspection Program Manual (SIPM).
- (12) Component Maintenance Manual (CMM) (For all fitted mission/ special equipment)
- (13) IPC of all equipment fitted on the Helicopter including electric, instrument, avionics, lifesaving and photo equipment.
- (14) IPC of GSE and Aerospace Ground Equipment vehicles.
- (15) Operation and Maintenance manual/guide book/reference book/instruction book of all GSE and aerospace ground equipment vehicles.
- (16) Aero dynamic characteristics manual/guide book/reference book/instruction book of the Helicopter.
- (17) Soft copy of all manual/guide book/reference book/instruction book including Pilots and Technicians training program (training material) on Helicopter system, engine, avionics & radar system.
- (18) Any other technical documents not mentioned above but required for smooth Operation and Maintenance.

	<p>j. No separate price is to be quoted for Publication/Manual/TO/Bulletins. The Publication/ Manual/ TO/ Bulletins are to be delivered within the total contract price.</p>											
<p>63.</p>	<p><b><u>Online Subscription, Delivery of Map and Software</u></b></p> <p>a. <b><u>Online Subscription.</u></b> The supplier shall provide minimum 02 years of online subscription for both helicopters Airframe and Engine from the date of final acceptance. If the helicopter engine manufacturer is different than helicopter OEM then online subscription from particular engine OEM are also to be provided for a period of minimum 5 years. Bidder is to quote price for the subscription separately (price is to be borne within the quoted price).</p> <p>b. <b><u>Map.</u></b> Digital map database (Moving map and GPS) subscription is to be provided for 02 years from the date of final acceptance. Bidder is to quote price for the subscription separately (price is to be borne within the quoted price).</p> <p>c. <b><u>Software (Optional).</u></b> The bidder is to quote for the following software (if applicable) for the offered helicopter:</p> <ol style="list-style-type: none"> <li>(1) CVR FDR Data Analysis for Accident Investigation.</li> <li>(2) Engine Health Monitoring and Analysis.</li> <li>(3) Software for Avionics System.</li> <li>(4) Mission Equipment Backup Software.</li> <li>(5) Aircraft System Backup Software.</li> <li>(6) Maintenance Management Software.</li> <li>(7) CG Calculation Software.</li> <li>(8) Power Assurance Check Software.</li> </ol>	<p>To be mentioned</p>										
<p><b><u>Training</u></b></p>												
<p>64.</p>	<p><b><u>Pilot and Rear Crew Training</u></b></p> <p>a. <b><u>Type Rating Training for Pilots.</u></b></p> <p>(1) Training shall be conducted as per following:</p> <table border="1" data-bbox="244 1644 1166 1868"> <thead> <tr> <th data-bbox="244 1644 413 1756">Trainee</th> <th data-bbox="413 1644 595 1756">Ground Classes</th> <th data-bbox="595 1644 777 1756">Simulator Training</th> <th data-bbox="777 1644 979 1756">Flying Training (VFR + IFR)</th> <th data-bbox="979 1644 1166 1756">Training Cost</th> </tr> </thead> <tbody> <tr> <td data-bbox="244 1756 413 1868">12 x Pilots</td> <td data-bbox="413 1756 595 1868">To be mentioned</td> <td data-bbox="595 1756 777 1868">To be mentioned</td> <td data-bbox="777 1756 979 1868">To be mentioned</td> <td data-bbox="979 1756 1166 1868">To be mentioned</td> </tr> </tbody> </table> <p>(2) The above training shall be conducted on the same type and model of aircraft offered under the supervision of Qualified Helicopter Instructor (QHI). On completion of above training, the 12 x Pilots shall be certified as VFR and IFR 'Type Rated'.</p>	Trainee	Ground Classes	Simulator Training	Flying Training (VFR + IFR)	Training Cost	12 x Pilots	To be mentioned	To be mentioned	To be mentioned	To be mentioned	<p>To be mentioned</p>
Trainee	Ground Classes	Simulator Training	Flying Training (VFR + IFR)	Training Cost								
12 x Pilots	To be mentioned	To be mentioned	To be mentioned	To be mentioned								

<p><b>b. <u>EO/ IR Operator Training.</u></b></p> <p>(1) A training package for 06 x EO/ IR operators (minimum 02 weeks) shall be quoted with the offer. Training should incorporate theoretical and practical sessions at Helicopter’s OEM/ EOIR OEM premises.</p> <p>(2) Bidder is to arrange practical training for 06 x EO/ IR operators onboard offered helicopter for a duration of one week in Bangladesh.</p> <p><b>c. <u>NVG Training.</u></b></p> <p>(1) A NVG training package for 12 x Pilots and 08 Aircrew shall be quoted with the offer. Training shall be conducted as per following:</p> <table border="1" data-bbox="245 721 1168 1057"> <thead> <tr> <th>Trainee</th> <th>Ground Classes</th> <th>Simulator Training</th> <th>Flying Training</th> <th>Training Cost</th> </tr> </thead> <tbody> <tr> <td>12 x Pilots</td> <td>To be mentioned</td> <td>To be mentioned</td> <td>To be mentioned</td> <td>To be mentioned</td> </tr> <tr> <td>08 x Aircrew</td> <td>To be mentioned</td> <td>To be mentioned</td> <td>To be mentioned</td> <td>To be mentioned</td> </tr> </tbody> </table> <p>(2) The above training shall be conducted on the same type and model of aircraft offered under the supervision of Qualified Helicopter Instructor. The Bidder is to mention the syllabus/ modules, duration and all other details including the capability/ authority of such trained pilot.</p>	Trainee	Ground Classes	Simulator Training	Flying Training	Training Cost	12 x Pilots	To be mentioned	To be mentioned	To be mentioned	To be mentioned	08 x Aircrew	To be mentioned	To be mentioned	To be mentioned	To be mentioned	<p>To be mentioned</p>
Trainee	Ground Classes	Simulator Training	Flying Training	Training Cost												
12 x Pilots	To be mentioned	To be mentioned	To be mentioned	To be mentioned												
08 x Aircrew	To be mentioned	To be mentioned	To be mentioned	To be mentioned												
<p><b>d. <u>On Type Instructional Training.</u></b></p> <p>(1) 06 x Pilots shall undergo Type Rating Instructor (TRI) training at home/ abroad. TRI training shall be conducted as per following:</p> <table border="1" data-bbox="245 1496 1158 1684"> <thead> <tr> <th>Trainee</th> <th>Ground Classes</th> <th>Simulator Training</th> <th>Flying Training</th> <th>Training Cost</th> </tr> </thead> <tbody> <tr> <td>06 x Pilots</td> <td>To be mentioned</td> <td>To be mentioned</td> <td>To be mentioned</td> <td>To be mentioned</td> </tr> </tbody> </table> <p>(2) The above training shall be conducted on the same type and model of aircraft offered under the supervision of Qualified Helicopter Instructor. The Bidder is to mention the syllabus/ modules, duration and all other details including the capability/ authority of such trained pilot.</p> <p><b>e. <u>Search and Rescue (SAR) Training.</u></b> A detailed SAR package for 12 x Pilots and 12 x Air Crew sailors are to be provided at home or abroad (Basic SAR for 06 X pilots and 06 Air Crew, Advanced SAR for 06 x pilots and 06 Air Crew). This should include theoretical ground training, Simulator training and</p>	Trainee	Ground Classes	Simulator Training	Flying Training	Training Cost	06 x Pilots	To be mentioned	To be mentioned	To be mentioned	To be mentioned	<p>To be mentioned</p>					
Trainee	Ground Classes	Simulator Training	Flying Training	Training Cost												
06 x Pilots	To be mentioned	To be mentioned	To be mentioned	To be mentioned												

	<p>on type actual flying training. Necessary certification for the qualified trainees is to be provided on successful completion of the SAR training. The Bidder shall provide detailed syllabus including flying hour and duration in this regard.</p>																					
	<p>f. <b><u>Certification.</u></b> On completion of aforementioned training, necessary log book entries and certification need to be provided.</p>	<p>To be mentioned</p>																				
<p>65.</p>	<p><b><u>Maintenance Training</u></b></p> <p>a. <b><u>Type Training.</u></b></p> <p>(1) The Bidder is to quote separately the following package training for the technical personnel mentioning all details about prerequisite, syllabus, duration, training cost etc. Training shall be conducted on the same type and model of aircraft.</p> <table border="1" data-bbox="328 824 1169 1525"> <thead> <tr> <th>Ser</th> <th>Name of Training</th> <th>Number of Trainees</th> <th>Desired duration of training</th> <th>Training cost</th> </tr> </thead> <tbody> <tr> <td>(a)</td> <td>Type Training B1.3- Airframe (Theoretical and practical)</td> <td>16</td> <td>To be mentioned</td> <td>To be mentioned</td> </tr> <tr> <td>(b)</td> <td>Type Training B2.0- Avionics (Theoretical and practical)</td> <td>16</td> <td>To be mentioned</td> <td>To be mentioned</td> </tr> <tr> <td>(c)</td> <td>Engine Maintenance Training (Line and Intermediate) and Web ECTM (with software)</td> <td>16</td> <td>To be mentioned</td> <td>To be mentioned</td> </tr> </tbody> </table> <p>Type training should include weather radar, VHF/ UHF sets, HF sets, rescue hoist, Moving map, TACAN, FDR, CVR, Satellite tracking system etc as applicable in Cat B1 or Cat B2.</p> <p>b. <b><u>Life Saving Equipment (LSE) Servicing Training.</u></b> A detailed LSE training package for 06 x technicians are to be provided mentioning all details about syllabus, duration (minimum 2 weeks), training cost etc. Training should include theoretical and practical ground training. On completion of the training, EASA or equivalent certificate mentioning authorization for servicing (periodic/ annual) of the said LSE to be issued. LSE training should include the following equipment:</p> <p>(1) Emergency Floatation Gear.</p> <p>(2) Pilot, Co-pilot life vest.</p>	Ser	Name of Training	Number of Trainees	Desired duration of training	Training cost	(a)	Type Training B1.3- Airframe (Theoretical and practical)	16	To be mentioned	To be mentioned	(b)	Type Training B2.0- Avionics (Theoretical and practical)	16	To be mentioned	To be mentioned	(c)	Engine Maintenance Training (Line and Intermediate) and Web ECTM (with software)	16	To be mentioned	To be mentioned	<p>To be mentioned</p>
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(b)	Type Training B2.0- Avionics (Theoretical and practical)	16	To be mentioned	To be mentioned																		
(c)	Engine Maintenance Training (Line and Intermediate) and Web ECTM (with software)	16	To be mentioned	To be mentioned																		

	<p>(3) Passenger life jacket.</p> <p>(4) Pilot, Co-pilot life raft.</p> <p>(5) Passenger life raft.</p> <p>c. <b><u>Training on Ground Support Equipment (GSE) (optional)</u></b>. A detailed Ground Support Equipment training package for 06 x Technicians are to be provided mentioning all details about syllabus, duration (minimum 01 weeks), training cost etc. All kinds of GSE (Airframe and Avionics) which will be necessary for the proper maintenance for the offered Helicopters are to be included in the training. Training should include theoretical and practical ground training and on type actual GSE required for the safe maintenance of the offered Helicopter. On completion of the training, EASA or equivalent certificate mentioning authorization for servicing (periodic/ annual) of the said GSE is to be issued.</p> <p>d. <b><u>EO/ IR Maintenance Training</u></b>. A training package on EO/ IR system maintenance for 08 x technicians is to be provided mentioning all details about syllabus, duration (minimum 2 weeks), training cost etc. Training should include theoretical and practical session. Training should be conducted in EO/ IR OEM premises.</p> <p>e. <b><u>Structural Repair Type Training (Optional)</u></b>. Type training on Structural repair of the offered Helicopter for 06 x technicians is to be provided mentioning all details about syllabus, duration (minimum 2 weeks), training cost etc. Training should include theoretical and practical training. On completion of the training, EASA or equivalent certificate mentioning authorization for structural repair of the offered helicopter is to be issued.</p> <p>f. <b><u>Cat 'C' Maintenance Training (Optional)</u></b>. A detailed training on Cat 'C' maintenance Training for 06 x air technical crew is to be provided mentioning all details about syllabus, duration (minimum 01 weeks), training cost etc. Training should include theoretical and practical ground training. On completion of the training, EASA or equivalent certificate is to be issued.</p> <p>g. <b><u>Air Store Management Training (Optional)</u></b>. A detailed training on managing helicopter logistic chain for 06 x ground crew is to be provided mentioning all details about syllabus, duration (minimum 2 weeks), training cost etc. On completion of the training, EASA or equivalent certificate is to be issued.</p>	<p>To be mentioned</p>
<p>66.</p>	<p><b><u>CBT and VMT System (Optional)</u></b>. The Bidder is to offer suitable Computer Based Training (CBT) system for Pilot (if any) and Virtual Maintenance Training (VMT) system for maintainer (if any). Bidder is to provide necessary operator and maintenance training on each system for at least 06 persons considering the followings:</p>	<p>To be</p>

	<p>a. Comprehensive knowledge on the CBT and VMT.</p> <p>b. Can independently operate the CBT and VMT program and train new aircrews and maintainers about operating CBT and VMT.</p> <p>c. Can undertake the regular maintenance of hardware and up gradation of software.</p> <p>d. Troubleshooting of CBT and VMT.</p>	<p>mentioned</p>
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**Note**

1. The Bidder is also to offer/ quote their recommended standard training package for Pilots, Rear Crew, Maintainers and Logistic Support Personnel if the composition, location and duration of the training deviate from the aforementioned training requirement.

2. The Bidder is also to offer/ quote additional recommended training requirements if the same is/ are not included above which will be required for safe operation and maintenance of the Helicopters.

**Technical Support Team**

<p>67.</p>	<p><b><u>Field Service Representative (FSR)/ Technical Support Team (TST)</u></b></p> <p>a. 01 x FSR/ TST is to be kept in Bangladesh during warranty period for any schedule/ unscheduled maintenance.</p> <p>b. FSR/ TST shall be able to render technical support to BN technicians for the following trades:</p> <ul style="list-style-type: none"> <li>(1) Airframe.</li> <li>(2) Engine.</li> <li>(3) Electric.</li> <li>(4) Instrument/ Avionics.</li> <li>(5) Radio.</li> <li>(6) Radar.</li> <li>(7) Life Saving Equipment.</li> <li>(8) Hoist.</li> <li>(9) Mission Equipment etc.</li> </ul> <p>c. The FSR/ TST is to be sent to Bangladesh after handling/ taking over of the Helicopters in Bangladesh.</p> <p>d. FSR/ TST shall support the BN in the following's aspects:</p> <ul style="list-style-type: none"> <li>(1) Routine maintenance and care of the Helicopters in respect of the new/ modified equipment.</li> <li>(2) Diagnosis, trouble shooting and repair of new/ modified equipment(s).</li> </ul>	<p>To be mentioned</p>
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	<p>(3) Support for operation.</p> <p>(4) Train BN technicians on all types of scheduled inspections of equipment, maintenance, fault finding and rectification of defects of equipment. FSR is to ensure transfer of knowledge on operation and maintenance to BN personnel as far as possible.</p> <p>(5) The FSR/ TST is to raise warranty claim for unserviceable items and expedite for quick arrival of items. They will be responsible for making a Helicopters or equipment serviceable as quick as possible.</p> <p>(6) Will supervise any other maintenance issue that needs to be solved.</p>	
<p><b><u>Technical Requirement</u></b></p>		
<p>68.</p>	<p><b><u>Quality Assurance</u></b></p> <p>The quality of the Helicopter and aviation equipment installed in the Helicopters is to correspond to the standard technical conditions for the offered class of Helicopter as specified by EASA/ FAA or equivalent authority. The Bidder shall also provide certificate of airworthiness from respective aviation authority, quality certificates or other similar documents of international aviation authority.</p>	<p>To be mentioned</p>
<p>69.</p>	<p><b><u>Electro-Magnetic Compatibility</u></b></p> <p>The installed equipment and their installation shall be designed to ensure that all equipment is electro-magnetically compatible with one another while installed in the Helicopter. The Helicopter Manufacturer will be required to demonstrate their satisfactory integration and provide necessary compliance certificate.</p>	<p>To be mentioned</p>
<p>70.</p>	<p><b><u>TBO and Service Life of Helicopters, Life Limit Components and Vendor Items</u></b></p> <p>Bidder is to mention Time Between Overhaul (TBO) of airframe, engine and other life limit components.</p>	<p>To be mentioned</p>
<p>71.</p>	<p><b><u>Certifications</u></b></p> <p>a. The helicopters are to be certified by competent authority (FAA/ EASA or equivalent) to conduct flying under Visual Flight Rules (VFR) and Instrument Flight Rules (IFR).</p> <p>b. The helicopters are to be certified for operating in maritime environment including ship's deck landing at sea.</p> <p>c. The helicopters shall have following certifications and to be provided during the delivery of the helicopters:</p> <p>(1) Certificate of Airworthiness (EASA form 25 or equivalent).</p>	<p>To be</p>

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	<p>(2) Aircraft Statement of Conformity (EASA Form 52) or equivalent.</p> <p>(3) Certificate of Release to Service (EASA Form 53 or equivalent).</p> <p>(4) Authorized Release Certificate (EASA Form 1 or equivalent).</p> <p><b>Note</b></p> <p>All certificates and documents submitted along with the quotation are to be original and signed by the authorized representatives of the Manufacturer.</p>	<p>mentioned</p>
<p>72.</p>	<p><b><u>Aircraft Form, Log Book and Associated Log Cards.</u></b></p> <p>a. Supplier shall provide 02 (Two) sets of helicopters log books for each helicopter. Supplier should also provide the engine log books (01 for each engine, including the spare) along with the helicopter. The helicopter log books shall contain necessary log cards (As per the item/ equipment requirement), life limit component list and other associated certificates/documents.</p> <p>b. Bidder is to provide the following forms/information at the time of aircraft delivery:</p> <ul style="list-style-type: none"> <li>(1) Warranty Claim Form and Procedures</li> <li>(2) Daily Inspection and Maintenance Forms</li> <li>(3) QCS inspection forms</li> <li>(4) Power Assurance Check form</li> <li>(5) Balancing procedure and check form</li> <li>(6) Life Cycle cost of helicopter (optional).</li> </ul>	<p>To be mentioned</p>
<p><b><u>PART 3: GENERAL TERMS AND CONDITIONS</u></b></p>		
<p>73.</p>	<p><b><u>Delivery Period</u></b></p> <p>02 x Helicopters along with all avionics, sensors, mission equipment, weapon outfit and associated accessories, spares, GSE and relevant documents are to be delivered to user premises (Chattogram, Bangladesh) within <b>24 (Twenty-four) months</b> from date of signing the contract.</p>	<p>To be mentioned</p>
<p>74.</p>	<p><b><u>Consignee.</u></b> The items are to be delivered to the following consignee:</p> <p style="text-align: center;">The Commanding Officer Naval Stores Depot Chattogram New Mooring, Chattogram, Bangladesh</p> <p style="text-align: center;">or</p> <p style="text-align: center;">Officer- In-charge</p>	<p>To be mentioned</p>

	<p>Naval Stores Sub Depot Dhaka Namapara Khilkhet, Dhaka 1229</p>	
<p>75.</p>	<p><b><u>Stage Inspection</u></b></p> <p>a. “Stage Inspection” will be carried out by 05 x members team of Buyer in 02 (Two) phases. Each phase will be of 05 (Five) working days (excluding journey period) at factory premises/ manufacturing plant.</p> <p>b. The schedule for “Stage Inspections” will be decided later on by the Buyer in coordination with Supplier.</p> <p>c. The Supplier will confirm the Buyer about the commencement date of the “Stage Inspection” at least 08 (eight) weeks prior to the said inspection. The Buyer shall intimate the list of names and details of the inspectors minimum 30 (thirty) days before the commencement date of any “Stage Inspection”.</p> <p>d. The “Stage Inspection” will be carried out at the Buyer's expenses (only related to boarding, lodging, international air tickets, etc. for the personnel proceeding for “Stage Inspection”). Other costs related to conduct of “Stage Inspection” including local transportation are to be quoted by the Supplier.</p> <p>e. The “Stage Inspection” team will inspect entire stores at any stage of their choice for each consignment. The “Stage Inspection” will be carried out at the assembly line or any other required place of Helicopter.</p> <p>f. All the necessary facilities, consumable and non-consumable items, tools, gauges, instruments and any other item required for operational test are to be arranged by the Supplier within the quoted price.</p> <p>g. All internal transport including the arrangement for entry into the country (including assistance for getting visa and concerned area) for the “Stage Inspection” team is to be arranged by the Supplier within the quoted price.</p> <p>h. During inspection “Joint Stage Inspection Report” shall be signed by both parties at the place of inspection.</p> <p>j. On return from the “Stage Inspection”, the team will submit 02 x “Joint Stage Inspection Report” to BN Headquarters, who will in turn forward the final accession along with the “Joint Stage Inspection Report” to DGDP as soon as possible.</p>	<p>To be mentioned</p>
<p>76.</p>	<p><b><u>On Site Inspection by Project Implementation Team (Optional).</u></b></p> <p>a. The ‘Project Implementation Team’ will supervise and coordinate the whole project from beginning (i.e. after signing the contract agreement) to the acceptance of the helicopters by purchaser.</p>	

	<p>b. 'Project Implementation Team' consisting of at least of 04 (four) BN Officers will stay at manufacturing site twice during the period of major component assembly and avionics system integration/ functional check. The period of stay of BN team in bidder premises will be considered as training. Bidder is to recommend the appropriate duration (week/ month) of each period of stay at Bidder premises for Purchaser considerations.</p> <p>c. The Purchaser will provide international air fare for the team. Bidder will provide the accommodation, medical, food, office room and internal transport facility.</p>	<p>To be mentioned</p>
<p>77.</p>	<p><b><u>Factory Acceptance Test (FAT).</u></b> Following are to be considered for FAT:</p> <p>a. FAT will be carried out by a team of minimum 06 personnel at the Supplier's facilities.</p> <p>b. If conduct of FAT of any sensor, weapon, mission equipment etc. is not technically feasible as per standard FAT procedure of OEM of respective item, the FAT of that particular item is to be arranged at concern OEM's premises by at least 02 (two) BN personnel prior sending the item for installation in the offered Helicopters. The list of such items (if any) and duration of FAT are to be submitted with the offer.</p> <p>c. All costs related to conduct of FAT are to be quoted by the Supplier including cost of those to be arranged at OEM premises as stated above.</p> <p>d. The duration of FAT will be of minimum 15 (fifteen) working days for each Helicopter excluding journey time. All costs related to boarding, lodging, international air tickets etc. for the BN personnel proceeding for FAT will be borne by the Buyer. The Supplier shall arrange internal transportation of BN FAT team during conduct of FAT. In this regard price is to be quoted.</p> <p>e. The Supplier should inform the Buyer about the date of FAT (schedule) including details of FAT procedures to be carried out during FAT at least 08 (eight) weeks prior to the date of commencement of the said inspection. The FAT criteria for the items concerned will be developed by the Supplier and forwarded to Buyer in due time for consent.</p> <p>f. The FAT schedule is to include at least 10 (ten) hours flying on each helicopter and practical in-flight functional demonstration of all sensors/ systems/ equipment by BN and Supplier's Pilots. All mission equipment such as EO/ IR, WX RADAR, Satellite Tracking and Phone System, NVG compatibility etc functional demonstration (on ground and in-flight) are to be carried out</p>	<p>To be mentioned</p>

	<p>during FAT.</p> <p>g. After FAT, a joint test report will be prepared in English, which will include all test results and other relevant information, and signed by both the Supplier and Manufacturer, and the Buyer's representatives.</p> <p>h. All types of movement/ transportation (air/ sea/ road/ rail) of the FAT team within the Manufacturer's country, reception and arrangement for entry into the country/ concerned area for FAT are also to be arranged by the Supplier within the quoted price.</p> <p>j. Supplier/ Manufacturer shall ensure the readiness of the aircraft in all aspect for carrying out the FAT as per criteria.</p> <p>k. Discrepancies identified/ observed during FAT shall be addressed/ rectified prior to shipment by the Supplier, and defect rectification will be confirmed/ checked during PSI by the Buyer.</p>	
78.	<p><b><u>Pre-Shipment Inspection (PSI)</u></b></p> <p>A PSI of spares, consumables, tools, test equipment and ground support equipment (GSE) will be carried out by FAT team at the Manufactures/ Supplier's premises prior to shipment.</p>	To be mentioned
79.	<p><b><u>Transportation/ Shipment by Sea/ Air</u></b></p> <p>a. The Helicopter can be transported through ship/ air from the assembling plant/ factory. Cost of shipment by sea and by air is to be mentioned separately by the Supplier.</p> <p>b. After signing the contract, the Supplier is to take minimum time. The Supplier is to mention this time in the offer and accordingly contract is to be signed. The Supplier is to ship the Helicopters/ items within the time specified in the contract. Before shipment the Supplier is to get a written clearance from DGDP/ BN for shipment of the Helicopters/ items/ equipment.</p> <p>c. The contracted Helicopters and its associated equipment/ items are to be delivered to BN site at Chittagong. If the Helicopters are transported by air, Helicopter should be air transportable with main and tail rotor blade removed. Mast assembly may also be detachable for air transportation. All removable segments must have appropriate safe packaging for transportation.</p> <p>d. Bidder is to quote charges for sea/ air freight up to Chittagong, Bangladesh. The transportation of the Helicopters and associated equipment in Bangladesh (from port of embarkation to arrival to BN site) is to be arranged and paid by the Supplier.</p> <p>e. Bidder is to mention the port/ country of shipment in the offer.</p> <p>f. Insurance expenditures related to shipment will be borne by BN.</p>	To be mentioned

80.	<p><b><u>Post Shipment Inspection.</u></b></p> <p>a. A final inspection of all items at the consignee's end will be inspected jointly by both Buyers and Suppliers representatives. On completion of the Post Shipment Inspection, a joint certificate will be signed by both the parties. During Post Shipment Inspection if any item found to be missing or contrary and not in accordance with the contract, the Supplier shall take the responsibility of supply or replace the item.</p> <p>b. All types of movement/ transportation (by air/ road) of the Supplier's Post Shipment Inspection team are to be quoted by the Supplier.</p>	To be mentioned
81.	<p><b><u>Site Survey</u></b></p> <p>a. The Supplier shall conduct detailed Site Survey at selected site for assembly of Helicopter at Naval Aviation Hangar of BN at Chittagong. The Supplier shall work and co-ordinate with BN to determine any site restrictions and constraints and identify the best solution for the assembly/ installation of the complete Helicopter and provide as detailed work plan. The work plan shall contain detailed information of preparation activities to be accomplished by the Supplier prior to system assembly/ installation. The detailed work plan report shall be delivered to BN within 45 (forty-five) days of contract award.</p> <p>b. BN is maintaining a small fleet of aircraft with limited maintenance facilities. Wide variation of LSE, GSE and Test equipment will increase the inspection, servicing, calibration and spare collection load on maintenance organization. Moreover, maintain redundancy and fault finding become difficult. Hence, effort may be taken from Bidder side to offer the standard equipment (i.e. same or different model, manufacturer's equipment used in BN flight lines) for smooth conduct of operation and maintenance of the aircraft related equipment. Bidder may collect the equipment list used concern BN flight line.</p>	To be mentioned
82.	<p><b><u>Assembly/ Installation and Commissioning of Helicopters</u></b></p> <p>a. The Supplier will send an assembly/ installation team to Bangladesh for the assembly and installation of Helicopters. BN will not be responsible for the engineering works at assembly sites.</p> <p>b. After completion of assembly/ installation of the</p>	To be

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	<p>Helicopters, the Supplier shall carry out Test Flights of the Helicopter system. Turn-around time for completion of assembly/ installation, Acceptance Test Flight, Commissioning Flight Test will be maximum 30 (thirty) days from the date of arrival of Helicopter/ equipment at the port of disembarkation in Bangladesh.</p> <p>c. All costs for assembly/ installation including accommodation, food, internal transportation, medical care etc. of Supplier's Installation Team is to be quoted by the Supplier.</p>	<p>mentioned</p>
<p>83.</p>	<p><b><u>Final Acceptance Check Flight</u></b></p> <p>a. 06 (six) hours Final Acceptance Test Flight for each Helicopters shall be carried out by BN and Supplier's Pilots after delivering to Bangladesh at Buyer site. The Bidder shall submit detailed plan regarding it.</p> <p>b. During acceptance flight, if the system is found unsatisfactory, acceptance will be held up till the same is corrected. Acceptance will be completed after satisfactory Functional Check Flight.</p>	<p>To be mentioned</p>
<p>84.</p>	<p><b><u>Acceptance</u></b></p> <p>a. The Buyer will finally accept the Helicopters after successful Final Acceptance Check Flight by the Buyer's and Supplier's Pilots in Bangladesh. All costs involving test flight (fuel, lubricants, consumables, repair, damage, maintenance, modification etc) of any nature is to be quoted by the Supplier before final acceptance of each Helicopters by the Buyer.</p> <p>b. An acceptance certificate will be signed by both the parties (Supplier and Buyer) at the Buyer's premises on completion of successful Final Acceptance Check Flight and delivery of each Helicopters, Essential Spares, Test Equipment, Tools and Documents.</p> <p>c. During acceptance, the function and performance of the Helicopters and their systems/ equipment will be checked at sea for operation, integration and interfacing as required. Salient features are to be as follows:</p> <p style="padding-left: 40px;">(1) Operation and functional tests of the Helicopters and their fitted equipment/ sensors/ systems including take-off and landing.</p> <p style="padding-left: 40px;">(2) Checking of correct operation and interfacing of equipment/ sensors between the Helicopters and available airfield/ aerodrome facilities of Bangladesh (Civil Aviation Authority of Bangladesh (CAAB) and BN facilities).</p> <p>d. All Cost of Supplier's personnel during Final Acceptance</p>	<p>To be mentioned</p>

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	Check Flight in respect, food, internal transportation, medical care, telephone, internet etc. for required duration in Bangladesh are to be quoted by the Supplier.	
85.	<p><b><u>Quality Assurance Certificate</u></b></p> <p>Quality Assurance Certificate in respect of the associated equipment in regards to its manufacturing and performance is to be provided at the time of delivery of the items.</p>	To be mentioned
86.	<p><b><u>Warranty for Helicopter</u></b></p> <p>Following Warranty Certificates are to be provided for Helicopters and associated systems, sensors, equipment, weapons etc:</p> <p>a. Manufacturer's Warranty Certificate of 12 (twelve) months/ 600 flying hours (considering about 65 flying hours per month) whichever is earlier for each Helicopter from the date of acceptance by the Buyer for all the components of Helicopters.</p> <p>b. Warranty period of avionics, weapons, sensors, instruments, GSE, Test Equipment, Tools etc. (i.e. all other items supplied under the contract) shall be as per the respective manufacturer's specified time but not less than the warranty period mentioned as above.</p> <p>c. The Bidder shall have to furnish to the Buyer a bank guarantee for warranty after satisfactory handing over of the Helicopters for an amount equal to 5% of the contract price (before release of last 20% of Letter of Credit (LC) Value (minus cost of FSR/TST services and training)), which shall remain valid until expiry date of the warranty period.</p> <p>d. The Certificate of Assurance for regular supply of Technical Bulletins, Alert Service Bulletins (ASB), amendments to manuals and other publications at Supplier's cost.</p>	To be mentioned
87.	<p><b><u>Warranty Repair/ Replacement</u></b></p> <p>a. For any discrepancy in the Helicopters and their major components during operation within the warranty period, the Bidder shall be responsible to rectify the defects by its specialists or replace the defective items within 45 (forty-five) days from the date of reporting at their own expense including both way freight and insurance.</p> <p>b. Any defective component, if sent for repair to manufacturer, is to be repaired/ replaced and returned within 03 (three) months from the date of shipment from Bangladesh.</p> <p>c. For AOG items, the warranty replacement should be made within 07 (seven) working days after the warranty claim.</p>	To be mentioned

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	d. If repair time of any component is more than 30 (thirty) days then Supplier will provide a loan item which will be returned after receiving the original component.	
88.	<b><u>Extension of Warranty.</u></b> During the warranty period, if any equipment or unit remains non-operational for more than 45 (forty-five) days due to pending repair work by the Supplier, the warranty period will be automatically extended for that particular equipment by the same period of un-serviceability.	To be mentioned
89.	<b><u>Marking and Painting</u></b> a. Helicopters are to be painted as per BN approved painting (Corrosion resistive) specification (Preferably Grey with BN Marking). Bidder is to provide color options (minimum five colors) to BN within 02 (two) months of signing the contract. After final selection of color code, a painted model of the Helicopter is to be provided for final approval. b. The Bidder is to provide at least 10 (ten) approved model (appropriate size) of offered helicopters within 06 (six) month after signing the contract.	To be mentioned
90.	<b><u>Supply Assurance Certificate.</u></b> The Bidder will require submitting necessary authorization/ export license from the concerned government agency of respective Manufacturer's country for all offered equipment, sensor, weapon system etc. stating that: a. The item(s)/ equipment/ sensors are free for sale to the Bangladesh Navy. b. The concerned Manufacturer will remain obliged to supply of spare parts, technical advice etc. to the Bangladesh Navy in future.	To be mentioned
91.	<b><u>Obsolescence.</u></b> If any system, equipment, machinery, etc. becomes obsolete or out of production during construction period of Helicopters, the Bidder is to submit minimum 03 (three) alternatives of same/ improve version for selection of suitable replacement by the Buyer without any additional cost.	To be mentioned
92.	<b><u>Packing.</u></b> Helicopter and its equipment should be packed in such a way that those should be transportable by air, land or sea (as applicable).	To be mentioned
93.	<b><u>Expenses of the FSR/ Bidder's Specialist at Bangladesh.</u></b> In Bangladesh, accommodation, food, transportation, medical care and all other expenses of the specialist team, installation team, FSR/TST and interpreter (if deemed necessary for FSR) will be borne by the Supplier. Cost of FSR/TST is to be shown separately in the price schedule.	To be mentioned
94.	<b><u>Extended FSR Service.</u></b> Separate price quotation is to be mentioned for monthly service of each FSR in case BN intends to take FSR/TST service beyond Warranty Period.	To be mentioned

<p>95.</p>	<p><b><u>Security Clearance.</u></b> BN will arrange security clearance for the visit of Bidder's specialists including FSR/TST for assembly and technical support of the Helicopter. The list of the team members along with necessary information is to reach BN Headquarters, (Directorate of Naval Aviation) at least 30 (thirty) days before their arrival.</p>	<p>To be mentioned</p>
<p>96.</p>	<p><b><u>Schedules.</u></b> The Bidder is to provide the following tentative schedule along with the offer:</p> <ul style="list-style-type: none"> <li>a. Training.</li> <li>b. Project Implementation Team (on site staying).</li> <li>c. Stage inspections.</li> <li>d. Factory Acceptance Test and PSI.</li> <li>e. Shipment.</li> <li>f. Delivery and assembly.</li> <li>g. Final acceptance check flight and acceptance.</li> </ul>	<p>To be mentioned</p>
<p><b><u>Miscellaneous Terms &amp; Conditions</u></b></p>		
<p>97.</p>	<p>The following miscellaneous terms and conditions are to be followed (agreement of the Bidder is to be mentioned against each terms and conditions):</p> <ul style="list-style-type: none"> <li>a. The Bidder must mention the name and full address of the local Agent (if any) in the offer.</li> <li>b. Due to the fault of the Supplier, if any change/ amendment is required in the contract/ LC, all such expenses/ charges shall be borne by the Supplier.</li> <li>c. DGDP shall have the right to cancel the contract with necessary punitive action for Supplier's failure in supplying the contracted goods and services in due time.</li> <li>d. The cost of Helicopters and additional stores/ FOB including all charges is to be '<b>Firm and Fixed</b>'. No increase of price at any stage after signing the contract will be accepted. If any item other than those already contracted is required during assembly of Helicopters, those are to be provided by the Supplier within the contracted price.</li> <li>e. Freight charges will be paid at actual, but not more than the contracted freight charge. As such, freight charge is to be mentioned in appropriate column of AWB/ BL. Otherwise, FOB value of the Helicopters and supplied items will be paid.</li> <li>f. Cost of freight/ transportation charge and insurance for any surplus spares/ accessories, which will be taken back after completion of assembly of Helicopter, is to be borne by the Supplier.</li> </ul>	<p>To be mentioned</p>

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	<p>g. DGDP may impose financial penalty or cancel the contract with necessary punitive action for failing to fulfill any of the terms and conditions of the contract.</p> <p>h. Bidder must mention the prices in USD/ Euro/GBP which is to be firm and fixed. No increase of price at any stage will be accepted by Purchaser after submission of offer.</p> <p>j. The transshipment is not allowed but if the Bidder needs transshipment then they are to mention it in their offer about their requirement. In case of such requirement, transshipment will only be allowed under single AWB/ BL.</p> <p>k. Part shipment is allowed but not more than 03 times. The payment will be made as per 'Payment Terms' mentioned in this Tender Specification.</p> <p>l. Bidder is to inform along with offer whether any special infrastructure is required to be constructed or not.</p> <p>m. Bidders must also provide with the offer the detailed technical specifications and features of the proposed Helicopter and ancillary equipment separately in the form of brochures/ catalogue.</p> <p>n. Bidder is to submit the compliance/ non-compliance state against each of the tender terms and conditions in the sequence maintained in the tender specifications.</p> <p>p. Bidder is to submit the list of scheduled maintenance requirement along with man hour for helicopter and engine.</p> <p>q. Bidder may provide/ furnish with their offer any other information deemed necessary.</p>	
<p>98.</p>	<p><b><u>Vendor's List and Vendor Items</u></b></p> <p>Full addresses of the vendors including Fax number and e-mail address are to be provided for all vendor items, used in Helicopters and its associated equipment. The list of the vendor items is also to be provided.</p>	<p style="text-align: center;">To be mentioned</p>
<p>99.</p>	<p><b><u>After Sales Service</u></b></p> <p>Bidder is to furnish the Company's after sales services program with the offer. After Sales Support shall include (but not limited to) the followings:</p> <p>a. Technical support up to the service life of helicopters.</p> <p>b. Publication/ documentation support such as maintenance/ repair/ overhaul manual, Service bulletin, information letter etc up to the service life of</p>	<p style="text-align: center;">To be mentioned</p>

	<p>helicopters.</p> <p>c. Spares Support for airframe, engine and avionics up to 25 years or total life of helicopter whichever is later.</p> <p>Helicopter Specific Training Support for aircrew and technical crew after warranty period.</p>	
100.	<p><b><u>Maintenance Support</u></b></p> <p>a. Bidder is to submit the list of scheduled maintenance (first level, second level and third level) along with man hour requirement for offered helicopter and engine.</p> <p>b. Bidder is to submit a detailed proposal for beyond 2<sup>nd</sup> line maintenance support, which would be needed after expiry of warranty period.</p>	To be mentioned
101.	<p><b><u>Guarantee for Spares and Repair Support</u></b></p> <p>Bidder is to provide following with the offer:</p> <p>a. A Guarantee Certificate for providing spares support to Purchaser for 25 (twenty-five) years or Total Life of Airframe whichever is higher.</p> <p>b. A Guarantee Certificate for providing repair support to Purchaser for 25 (twenty-five) years or Total Life of Airframe whichever is higher.</p>	To be mentioned
102.	<p><b><u>Omission.</u></b> In case the Supplier fails to supply/ provide any of the items (i.e. machinery, avionics, equipment, sensors, weapon system and armaments, LSE and GSE etc.) within the scope of supply of the contract for manufacturing of Helicopters, the contract price shall be adjusted by deducting the quoted price of the item along with 25% penalty based on the contract price of the item. If the price of the item is not quoted in the original offer, the Buyer shall have the right to determine the price of the item based on procurement price of similar item by the Buyer through DGDP/ NSSD, Dhaka or any other means. However, any omission/ correction may be made under mutual agreement between the Buyer and the Supplier.</p>	To be mentioned
103.	<p><b><u>Bank Guarantee</u></b></p> <p>a. <b><u>Performance Guarantee.</u></b> Performance Guarantee (PG) for an amount equivalent to 10% of LC value is to be submitted before signing the contract by the bidder to the Buyer from any scheduled bank in Bangladesh in favour of Senior finance Controller (Navy), Lalasarai, Sailors Colony, Mirpur-14, Dhaka-1206, Bangladesh. This PG shall remain in vogue, which will be released on receipt of No Objection</p>	To be mentioned

	<p>Certificate from the Purchaser after final acceptance of the helicopters in Bangladesh.</p> <p>b. <b><u>Bank Guarantee.</u></b> Bank Guarantee (BG) for an amount equivalent to 10% of LC value is to be submitted after signing the contract by the bidder to the Buyer from any scheduled bank in Bangladesh in favour of Senior finance Controller (Navy), Lalasarai, Sailors Colony, Mirpur-14, Dhaka-1206, Bangladesh. The BG shall remain valid until delivery of the both Helicopters.</p> <p>c. <b><u>Warranty for Guarantee.</u></b> Warranty for Guarantee for an amount equivalent to 5% of LC value (minus the cost of FSR/TST and Training) is to be submitted after delivery of the both helicopters by the bidder to the Buyer from any scheduled bank in Bangladesh in favour of Senior finance Controller (Navy), Lalasarai, Sailors Colony, Mirpur-14, Dhaka-1206, Bangladesh as Warranty Guarantee. This Warranty for Guarantee shall remain in vogue, which will be released on receipt of 'No Objection Certificate' from the Purchaser after completion of warranty period of both helicopters.</p>	
104.	<p><b><u>Offer Validity.</u></b> Offer must remain valid for 30 June 2022 or as per tender terms and conditions from the date of opening the tender. Within the validity of the offer, withdrawal of offer or un-willingness to sign the contract by the Bidder is not to be accepted and, in such cases, actions would be taken against the principal Bidder and local agent as per DGDP rules. Purchaser also preserves the right to get the offer validity extended with the consent of the Bidder.</p>	To be agreed
105.	<p><b><u>Import Duty.</u></b> In case of imported goods, the bidder(s) are to mention import duty (if/as applicable) in the offer. It is to be noted that the items to be procured are intended for use by the Armed Forces of Bangladesh and hence qualify to be import duty free from abroad.</p>	To be agreed To be mentioned
<p><b><u>Payment Terms</u></b></p>		
106.	<p>100% Payment will be made by DGDP through irrevocable Letter of Credit (LC) opened with scheduled bank in Bangladesh and negotiation bank nominated by the supplier. All payments shall be made in foreign currency. Payment schedule shall be made under following terms and conditions:</p>	To be agreed
	<p>a. 20% of the LC value (minus the cost of FSR/TST services and training) after signing the contract and opening of the LC shall be released subject to submission of the following:</p> <p>(1) Bank Guarantee (BG) for an amount equivalent to 10% of LC value is to be submitted after signing the contract by the bidder to Buyer from any scheduled bank</p>	

RESTRICTED

<p>in Bangladesh in favour of Senior finance Controller (Navy), Lalasarai, Sailors Colony, Mirpur-14, Dhaka-1206, Bangladesh. This BG shall remain valid until delivery of the helicopters.</p> <p>(2) Performance Guarantee (PG) for an amount equivalent to 10% of LC value is to be submitted before signing the contract by the bidder to Buyer from any scheduled bank in Bangladesh in favour of Senior finance Controller (Navy), Lalasarai, Sailors Colony, Mirpur-14, Dhaka-1206, Bangladesh. This PG shall remain in vogue, which will be released on receipt of No Objection Certificate from the Purchaser after final acceptance of the helicopters in Bangladesh.</p>	<p style="text-align: center;">To be agreed</p>
<p>b. 60% of the LC value (minus the cost of FSR/TST and Training) will be released on production of the following documents to the Bank:</p> <ol style="list-style-type: none"> <li>(1) Clean/ Original Bill of Lading (BL)/ Original Airway Bill.</li> <li>(2) Supplier's signed Invoice accompanied by Freight paid voucher (Freight Amount must be shown in the Invoice).</li> <li>(3) Packing List.</li> <li>(4) Certificate of origin.</li> <li>(5) Manufacturers/ Supplier's Warranty/ Guarantee Certificate.</li> <li>(6) Factory Acceptance Test (FAT) Certificate.</li> <li>(7) Joint Pre-shipment Inspection Report (if PSI is held) or Quality Assurance Certificate (QAC) in original by the Manufacturer (if PSI is not held).</li> <li>(8) Shipment Clearance Certificate from DGDP.</li> </ol>	<p style="text-align: center;">To be agreed</p>
<p>c. 20% of LC value (minus the cost of FSR/TST and Training) will be released on production of following documentation from supplier:</p> <ol style="list-style-type: none"> <li>(1) Final acceptance certificate of the Helicopters by Purchaser after Final Acceptance Check Flight by both parties in Bangladesh.</li> <li>(2) Final acceptance certificate of additional stores such as: spares, tools, test equipment, ground support/ handling equipment, publications, documentations and certificates at Purchaser's site.</li> <li>(3) Submission of Bank Guarantee (BG) for an amount equivalent to 5% of LC value (minus the cost of</li> </ol>	<p style="text-align: center;">To be agreed</p>

RESTRICTED

	<p>FSR/TST and Training) is to be submitted after delivery of the both helicopters by the bidder to the Buyer from any scheduled bank in Bangladesh in favour of Senior finance Controller (Navy), Lalasari, Sailors Colony, Mirpur-14, Dhaka-1206, Bangladesh as Warranty Guarantee. This Warranty for Guarantee shall remain in vogue, which will be released on receipt of 'No Objection Certificate' from the Purchaser after completion of warranty period of both helicopters.</p> <p>(4) Supplier's signed commercial invoice.</p>	
	d. 100% cost of FSR/TST will be released on completion of FSR/TST service in Purchaser site and production of FSR/TST service completion certificate by the Buyer. If FSR/TST service is provided in phases, the payment may be also released on phases.	To be agreed
	e. 100% cost of training will be released on successful completion of training package and production of 'Training Completion Certificate" issued by the Buyer.	To be agreed
	f. <b>Part Payment.</b> Part payment shall be allowed by the purchaser against partial deliveries of aircraft and/ or spares and tools.	To be agreed
	<b>Note:</b> Bidder has to comply with the payment terms mentioned above; otherwise his offer may not be accepted.	To be mentioned
<b>Financial Offer</b>		
107.	All costs/ prices are to be mentioned in USD / Euro/ GBP in FOB basis.	To be agreed
108.	Costs/ prices are to be quoted as follows:	
	a. <b>Cost of Basic Helicopters</b> including all its fittings, features, services/ facilities, accessories, kit etc. are required to be provided as per the Tender Specification, and except those specifically mentioned in subsequent paragraphs below.	To be mentioned
	b. <b>Cost of Mission Sensors and Equipment</b> for the following item (item wise price to be quoted):	
	<p>(1) Electro Optics and IR Detection Device with Portable Display (para 42)</p> <p>(2) Search light (para 43)</p> <p>(3) Rescue hoist (para 44)</p> <p>(4) Cargo hook (para 45)</p> <p>(5) Emergency Floats (para 46)</p> <p>(6) TACAN receiver (para 47)</p> <p>(7) Helmets with Microphone (NVG Generation III compatible) (para 48)</p> <p>(8) Satellite Tracking system and Satellite phone</p>	To be mentioned

RESTRICTED

<p>(para 49)  (9) Rappelling (para 50)  (10) Provision of Installation of sensor in future (para 52)  (11) Blade Folding Kit (para 54)  (12) Stretcher- 02 (two) sets (para 57c)</p>	
<p>c. <b>Cost of Weapon provision and equipment</b> mentioned in paragraph 51 (item wise price to be quoted).</p>	<p>To be mentioned</p>
<p>d. <b>Price of Online Subscriptions, Digital Map and Software</b> mentioned in paragraph 63 (item wise price to be quoted).</p>	<p>To be mentioned</p>
<p>e. <b>Price of Training packages</b> mentioned in paragraph 64 to 65 as follows (item wise price to be quoted):</p> <p>(1) Pilot and rear crew training (para 64)</p> <p>(a) Type Rating Training for Pilots  (b) Search and Rescue (SAR) Training  (c) EO/ IR Operator Training  (d) On Type Instructional Training  (e) NVG Training</p> <p>(2) Maintenance Training (para 65)</p> <p>(a) Type Training (Cat B1.3)  (b) Type Training (Cat B2.0)  (c) Engine Maintenance Training  (d) Life Saving Equipment (LSE) Servicing Training  (e) Training on Ground Support Equipment (GSE) (optional)  (f) EO/ IR Maintenance Training  (g) Structural Repair Type Training (Optional)  (h) Cat 'C' Maintenance Training (Optional)  (j) Air Store Management Training (Optional)  (k) CBT and VMT System training (Optional)</p> <p>(3) Local training in Bangladesh</p> <p>Breakdown of each Training/ tuition fees and administrative costs of trainees (costs related to food, accommodation and internal transportation for the trainees) are to be mentioned separately.</p>	<p>To be mentioned</p>
<p>f. <b>Cost of FSR/TST service for warranty period</b> as per paragraph 67.</p>	<p>To be mentioned</p>
<p>g. <b>Cost of shipment by Sea and Cost of Shipment by Air Freight</b> mentioned in paragraph 79.</p>	<p>To be mentioned</p>
<p>h. <b>Cost of warranty for 12 (twelve) months/ 600 flying hours</b> (whichever is earlier) mentioned in paragraph 86 to 88.</p>	<p>To be mentioned</p>

<p><b>Total Price of Mandatory Equipment and services =</b></p>	<p>To be mentioned</p>
<p><b><u>Optional items</u></b></p>	
<p>j. <b>Price of optional equipment</b> (item wise/ training) as per stated list below:</p> <ul style="list-style-type: none"> <li>(1) Additional fuel tank provision and tank (para 32a (4))</li> <li>(2) Installation of analog indicator (para 39b)</li> <li>(3) 02 (two) sets of VIP seats (para 57b)</li> <li>(4) Delivery of applicable Software (para 63c)</li> <li>(5) Structural repair type training (para 65e)</li> <li>(6) Cat 'C' Maintenance Training (para 65f)</li> <li>(7) Air Store Management Training (para 65g)</li> <li>(8) CBT and VMT System (para 66)</li> </ul> <p>Noncompliance of quoting optional item prices will be</p>	<p>To be mentioned</p>
<p>k. <b>Price of spares and consumables</b> as per paragraph 57(item wise).</p> <ul style="list-style-type: none"> <li>(1) Major components (13-line item) (para 59a (1))</li> <li>(2) Recommended spare for 02 (two) years maintenance (para 59a (2))</li> <li>(3) Recommended spares for 05 (five) years maintenance (para 59a (3))</li> <li>(4) Recommended Consumables for warranty period (para 59b (1))</li> <li>(5) Recommended Consumables for 01 (one) year after warranty period (para 59b (2))</li> </ul>	<p>To be mentioned</p>
<p>l. <b>Cost of GSE, special tools and test equipment</b> mentioned in paragraph 58(item wise).</p> <ul style="list-style-type: none"> <li>(1) GSE including GPU (para 60a)</li> <li>(2) Special tools and test equipment up to full cycle maintenance (para 60b)</li> <li>(3) Crash and rescue kit (para 60g)</li> </ul>	<p>To be mentioned</p>
<p>m. <b>Price of extended FSR/ TST service</b> per month for a duration of minimum 06 months after warranty period (Para 94).</p>	<p>To be mentioned</p>
<p>n. Cost related to On Site Inspection by Project Implementation Team (Para 76).</p>	<p>To be mentioned</p>

RESTRICTED

	p. Additional optional item (if any)	To be mentioned
	Total Price of Optional Equipment and services =	To be mentioned
	<p><b>Note:</b></p> <p>1. Purchaser reserves the right to select items/ equipment/ spares/ weapons/ sensors from among those offered by the Bidder.</p> <p>2. In the financial offer, price of all mandatory and optional items is to be shown separately.</p> <p>3. Total price for determining lowest bidder shall be determined as per the existing rules of DGDP.</p>	
109.	Any other terms and conditions not covered above will be as per the standing rules of DGDP.	To be agreed
110.	DGDP reserves all the rights to select any Bidder or cancel the whole tender process at any time without assigning any reason.	To be agreed