

Ministry of Transport, Highways, Ports and Civil Aviation

**Procurement of 100 Nos. Comfortable Low Floor Buses for
Passenger Transportation in the Urban Areas**

Procurement No. MT/04/09/05/CT/569

Addendum 01

The following amendments were made to the “issued Bidding document” for the Procurement of 100 Nos. Comfortable Low Floor Buses for Passenger Transportation in the Urban Areas

Clause	Amended clause												
Invitation for Bids (IFB)													
5	Bids must be accompanied by a Bid Security as per the format included in section IV (Bidding forms) and the amount shown in the below table, irrevocable & unconditionally encashable upon the first written request by the Ministry of Transport, Highways, Ports and Civil Aviation. Bid security should be issued by a registered commercial bank approved by the Central Bank of Sri Lanka or foreign bank recognized by central bank of Sri Lanka. Any Bid not accompanied by a valid Bid Security will be rejected. To be amended as Bids must be accompanied by a Bid Security as per the format included in section IV (Bidding forms) and the amount shown in the below table, irrevocable & unconditionally encashable upon the first written request by the Ministry of Transport, Highways, Ports and Civil Aviation. Bid security should be issued by a registered commercial bank approved by the Central Bank of Sri Lanka. Any Bid not accompanied by a valid Bid Security will be rejected.												
Section II – Bidding Data Sheet(BDS)													
ITB 14.3	<table border="1"> <thead> <tr> <th>Bus Type</th><th>Quantity</th></tr> </thead> <tbody> <tr> <td>30-32 Seats for Regular Stop Services (Bus Type 1)</td><td>60</td></tr> <tr> <td>40-42 Seats for Limited Stop Services (Bus Type 2)</td><td>40</td></tr> </tbody> </table> Table to be amended as <table border="1"> <thead> <tr> <th>Bus Type</th><th>Quantity</th></tr> </thead> <tbody> <tr> <td>30-32 Seats for Regular Stop Services (Bus Type 1)</td><td>60</td></tr> <tr> <td>38-42 Seats for Limited Stop Services (Bus Type 2)</td><td>40</td></tr> </tbody> </table>	Bus Type	Quantity	30-32 Seats for Regular Stop Services (Bus Type 1)	60	40-42 Seats for Limited Stop Services (Bus Type 2)	40	Bus Type	Quantity	30-32 Seats for Regular Stop Services (Bus Type 1)	60	38-42 Seats for Limited Stop Services (Bus Type 2)	40
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ITB 20.1	Bid shall include a Bid Security (issued by bank or surety) included in Section IV Bidding Forms; To be amended as Bid shall include a Bid Security (issued by a registered commercial bank approved by the Central Bank of Sri Lanka) included in Section IV Bidding Forms;												

ITB 35.5	Bidder shall quote for all the items in the price schedule. To be amended as The bidder shall quote for either Bus type 1 or Bus type 2 or both in the price schedule												
ITB 41	The Contract shall not be awarded earlier than the expiry of the Standstill Period. The Standstill Period shall be ten (10) Business Days unless extended in accordance with ITB 46. The Standstill Period commences the day after the date the Purchaser has transmitted to each Bidder the Notification of Intention to Award the Contract. Where only one Bid is submitted, the Standstill Period shall not apply. The Purchaser shall send to each Bidder the Notification of Intention to Award the Contract to the successful Bidder. The Notification of Intention to Award shall be issued according to the procurement guideline To be amended as The Contract shall not be awarded earlier than the expiry of the Standstill Period. The Standstill Period shall be seven (07) working days. The Standstill Period commences the day after the date the Purchaser has transmitted to each Bidder the Notification of Intention to Award the Contract. Where only one Bid is submitted, the Standstill Period shall not apply. The Purchaser shall send to each Bidder the Notification of Intention to Award the Contract to the successful Bidder. The Notification of Intention to Award shall be issued according to the procurement guideline												
Section IV – Bidding Forms													
Page 33, Clause (b)	<table border="1" data-bbox="592 1290 1302 1464"> <thead> <tr> <th>Bus Type</th><th>Quantity</th></tr> </thead> <tbody> <tr> <td>30-32 Seats for Regular Stop Services (Bus Type 1)</td><td>60</td></tr> <tr> <td>40-42 Seats for Limited Stop Services (Bus Type 2)</td><td>40</td></tr> </tbody> </table> Table to be amended as <table border="1" data-bbox="592 1603 1302 1778"> <thead> <tr> <th>Bus Type</th><th>Quantity</th></tr> </thead> <tbody> <tr> <td>30-32 Seats for Regular Stop Services (Bus Type 1)</td><td>60</td></tr> <tr> <td>38-42 Seats for Limited Stop Services (Bus Type 2)</td><td>40</td></tr> </tbody> </table>	Bus Type	Quantity	30-32 Seats for Regular Stop Services (Bus Type 1)	60	40-42 Seats for Limited Stop Services (Bus Type 2)	40	Bus Type	Quantity	30-32 Seats for Regular Stop Services (Bus Type 1)	60	38-42 Seats for Limited Stop Services (Bus Type 2)	40
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Clause	Amended clause										
Section IV – Bidding Forms											
Page 37, Price schedule	1	2	3	4	5	6	7	8	9	10	
				Goods and related Services offered within Sri Lanka (in Sri Lankan Rupees)							
	Line Item No.	Description of Goods or related services	Qty and unit	Unit price(inclusive of duties, sales, and other taxes) Excluding VAT	Price per line item (col.3*4)	Inland transportation, insurance and other related services to deliver the goods to their final destination if not included under column 4	Discounted Total Price (if any) excluding VAT	Total Price Excluding VAT (Col 5+6)	VAT	Total Price Including VAT (Col 7 or 8+9)	
	1	30-32 Seats for Regular Stop Services (Bus Type 1)	60								
	2	40-42 Seats for Limited Stop Services (Bus Type 2)	40								
	Sub Total										

Table to be amended as

1	2	3	4	5	6	7	8	9	10
			Goods and related Services offered within Sri Lanka (in Sri Lankan Rupees)						
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1	30-32 Seats for Regular Stop Services (Bus Type 1)	60							
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Sub Total									

Section V – Schedule of Requirement								
Page 44, 1. List of Goods and Delivery Schedule	Line Item N°	Description of Goods	Quantity	unit	Final (project Site) Destination as specified in BDS	Delivery Date ¹		
						Earliest Delivery date	Latest Delivery Date	Bidder's offered Delivery date [to be provided by the bidder]
	1	30-32 Seats for Regular Stop Services (Bus Type 1)	60	Nos .	Ministry of Transport, Highways, Ports and Civil Aviation. Sethsiripaya, Battaramulla. (Sites within 25km from the Ministry)		Within four months (from the awarding date)	
	2	40-42 Seats for Limited Stop Services (Bus Type 2)	40	Nos .				

Table to be amended as

Line Item N°	Description of Goods	Quantity	unit	Final (project Site) Destination as specified in BDS	Delivery Date ¹		
					Earliest Delivery date	Latest Delivery Date	Bidder's offered Delivery date [to be provided by the bidder]
1	30-32 Seats for Regular Stop Services (Bus Type 1)	60	Nos .	Ministry of Transport, Highways, Ports and Civil Aviation. Sethsiripaya, Battaramulla. (Sites within 25km from the Ministry)		Within five months (from the awarding date)	
2	38-42 Seats for Limited Stop Services (Bus Type 2)	40	Nos .				

Page 44, 2. List of related Services and Completion Schedule

Service	Description of Service	Quantity	Unit	Place where Services shall be performed	Final Completion Date(s) of Services
1	Inspection of 30-32 Seats for regular Stop Services (Bus Type 1)	60	Nos.	Ministry of Transport, Highways, Ports and Civil Aviation. (Sites within 25km from the Ministry)	One month
2	Inspection of 40-42 Seats for Limited Stop Services (Bus Type 2)	40	Nos.		

Table to be amended as

Service	Description of Service	Quantity	Unit	Place where Services shall be performed	Final Completion Date(s) of Services
1	Inspection of 30-32 Seats for regular Stop Services (Bus Type 1)	60	Nos.	Ministry of Transport, Highways, Ports and Civil Aviation. (Sites within 25km from the Ministry)	One month
2	Inspection of 38-42 Seats for Limited Stop Services (Bus Type 2)	40	Nos.		

Clause	Amended clause		
Section V – Schedule of Requirement			
Technical Specification 02. Bus Type 2	(40-42 SEATS FOR LIMITED STOP SERVICES)		Bidders' response (Mark the technical specification manual page number)
	01. VEHICLE PARAMETERS		
	(i) Type	A low-entry, single-deck bus with a rear-mounted engine and a raised rear floor section, constructed on a chassis suitable for passenger transport.	
	(ii) Pay load	Not less than 5500 kg	
	(iii) Wheelbase	5600-6400 mm	
	(iv) Max. rear overhang	60% of Wheelbase	
	(v) Min angle of departure /approach	10 ⁰	
	(v) Max. overall length	12000 mm	
	(vi) Overall width	2600mm	
	(vii) Bus floor height	≤ 350 mm	
	(viii) Internal room height from the highest floor level	≤ 2300 mm	
	(viii) Turning circle radius	≤ 10.5 m	
	(ix) Ground clearance at GVW- within wheelbase	≥ 250 mm-	
	(x) Max. speed	≥ 65 km/h without speed limiter	
	(xii) Operating condition	Up to temperatures at 45°C and maximum humidity of 90%	
	02. PROPULSION		
	(i) Type of Propulsion system	6 cylinder, minimum 220HP, diesel turbo charged engine	
	(ii) Fuel option	EURO IV	
	(iii) power sufficient to provide Acceleration (m/sec ²) Bus speed of 0-30 kmph in seconds Air-condition load Min.gradability from stop at GVW	≥ 0.8 ≤ 10.5 Cooling temperature at a seating level ≤ 20°C 17%	

Table to be amended as		
(38-42 SEATS FOR LIMITED STOP SERVICES)		Bidders' response (Mark the technical specification manual page number)
01. VEHICLE PARAMETERS		
(i) Type	A low-entry, single-deck bus with a rear-mounted engine and a raised rear floor section, constructed on a chassis suitable for passenger transport.	
(ii) Pay load	Not less than 5500 kg	
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		ED Panel should be min. 450 x 250 mm	
• Electric bells		• To have Min.12 electric Bell switches. • To have minimum of two alighting bell switches close to the door to be easily accessible for disabled persons and synchronizing with colored lighting when activating for the benefits of hearing-impaired commuters.	
• Electric horn		• horn noise level when measured at a 2m distance from front buffer should not exceed 105 dB	
• Fuel tank capacity		• ≥ 200 liters	
11. PASSENGER CAPACITY			
		• Preferably 40-42 seats and provision for 01-wheel chair. Total passenger capacity of 80. • A sufficient space with safety locking mechanism and wheelchair safety belts to be provided. Details of wheel stoppers and safety mechanism should be provided. • Details of available space for standee passengers should be given. (Including side seat, rear upper deck seats and etc)	
12. SEATS			
• Passenger seats		• Washable durable seats compatible with Appendix 1	
• Driver seat		• Driver seat with headrest, 3-point seatbelt, adjustable height and forward/backward movement for ergonomic comfort.	
• Priority seats for persons with disabilities		• To have 4 forward facing priority seats and preferably be located behind driver seats / close to doors. • Shall be indicated with appropriate signs.	

Table to be amended as

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	• Preferably 38-42 seats and provision for 01-wheel chair. Total passenger capacity of 80. • A sufficient space with safety locking mechanism and wheelchair safety belts to be provided. Details of wheel stoppers and safety mechanism should be provided. • Details of available space for standee passengers should be given. (Including side seat, rear upper deck seats and etc)	
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Multi-function GPS Tracking Unit with Fuel Sensor– General Specifications

- i. The Tracking Unit should have a position accuracy of 5 -10 m, and data logging should be done at every 1 sec. Data transfer through GPRS/GSM/4G should be at every 5 sec or less to the server. The sim slot should be compatible with the operating band of Sri Lankan telco providers. Both GPS and GPRS antennas must be fixed inside of the bus.
- ii. Should have the capacity to store the data if the vehicle lost connection with GSM/GPRS/4G network (Minimum 256 MB) and transfer it once the connection is restored. A suitable storage device should be integrated along with a GPS unit.
- iii. The device should be capable of operating with the battery of the bus, the unit should also have an internal back-up battery (6 hours), and the battery charge should be indicated in the unit. A battery charging facility should also be provided.
- iv. Tamper Proof, Vandal Proof and Water Proof enclosures for GPS, power supply, and antenna must be provided. Alert SMS must be sent if tampered, power cord removal, antenna cut etc.
- v. Should provide an open source customizable backend application with a database which is capable of integrating any type of standard GPS and related devices along with the compatibility to protocol NMEA 0183, a listener API to integrate other Information Systems and standard fleet management functions, including the following.
 - a. Global Tracking Capability - Seamless tracking to any location with accuracy and ease.
 - b. Real-Time Location Data - Live tracking, providing immediate visibility into the whereabouts, movements, and status of assets through a straightforward interface.
 - c. Geofencing Alerts – Setting up virtual boundaries and receiving instant notifications when assets cross these predefined zones, bolstering security and asset oversight.
 - d. Speed and Movement Alerts - Alerts for any deviations like over speeding to ensure safety and compliance.
 - e. Historical Data and Reports - Access to detailed historical data and comprehensive reporting tools allows for thorough trend analysis, route optimization, and informed decision-making.
 - f. Multi-Platform Support - With support for Android/iOS, GPS Gateway offers flexibility in asset management from any location, at any time.
 - g. Customizable Notifications - Tailored alert settings to meet specific security or operational needs, enhancing the tracking experience.
 - h. Driver Performance Monitoring – Provision to driver behavior, promoting safety and efficiency by tracking speed, driving patterns, and idle times.
 - i. Scalability for Large Fleets –Should be able to support and manage a large fleet as and when needed.
- vi Sri Lanka Transport Board should have the right to modify or amend all configurations as and when needed.

- vii Should be integrated with a fuel sensor and be able to get readings through the backend application.
- viii Two way communication facility should be provided to communicate with the control room
- ix Three years' comprehensive warranty for all equipment must be included, and technical support in installation and maintenance for all GPS units during the warranty period should be provided. Annual maintenance charge after the warranty period should be indicated as a separate line item.

Tracking Unit Technical Specifications

Unit / Item

Specification

1. GSM

- 1.1.Frequency 900/1800 MHz; 850/1900 MHz
- 1.2.Power Supply 9V-35V
- 1.3.Battery Backup At least 6 Hrs. without Vehicle Battery

2. GPRS

- 2.1.Data Class Class B or relevant
- 2.2.Coding Scheme CS-4 or relevant
- 2.3.Uplink Transfer 40 kbps min.
- 2.4.Downlinklink Transfer 80 kbps min.
- 2.5.Protocol NMEA0183 or any other Supporting IP Like http

3. GPS

- 1.Datum WGS-84
- 2.Frequency L1-1575.42MHz
- 3.C/A code 1.023 MHz chip rate
- 4.Channels At least 16-20
- 5.Sensitivity (-)158db
- 6.Position Accuracy 5 -10 m
- 7.Time Accuracy 0.1 m/s

Page no 64 and 65 to be amended as

TECHNICAL SPECIFICATIONS OF AUGMENTED ACCESSORIES

1. PURPOSE

In addition to the points provided in the previous procurement documentation (MT/04/09/05/CT/569), please use this document to understand the digital system. Here, we intend to provide a complete understanding of all devices related to the digital system, presenting each component in detail while referencing the standard positions mentioned in the previously supplied document. Furthermore, this will outline the set of systems that support the digitalization of bus operations, their functionalities, and our related requirements.

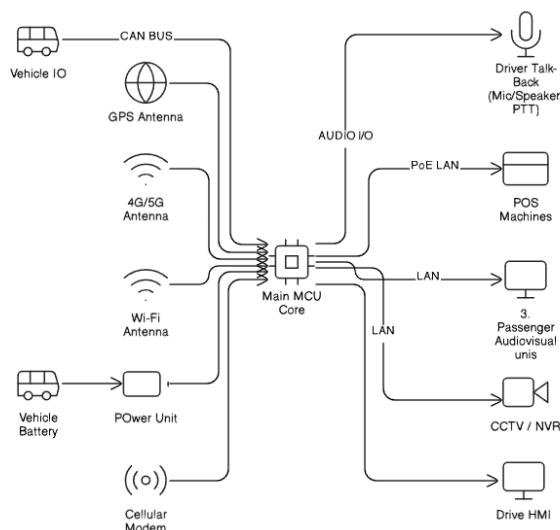
All references herein are linked to the table found under *Section V. Schedule of Requirements* in the previously provided procurement documentation (MT/04/09/05/CT/569), specifically under the subheading *3. Technical Specification*. Please note that all the excerpts shown within the [] brackets below correspond directly to the headings in that table.

2. SYSTEM OVERVIEW

1. Connectivity GSM/4G [13. Accessories – 10th bullet, 13th bullet]
2. Central processing and I/O unit (Main Control Unit, MCU).
3. Passenger-facing displays
 - 3.1. Front Display [10. Body - Destination indicator boxes]
 - 3.2. Inside and side Display [10. Bod - Inside passenger information system]
4. POS terminals [13. Accessories – 2nd bullet]
5. CCTV cameras with local storage [13. Accessories – 12th bullet]
6. Driver talkback/intercom system for dispatch two-way voice
7. GPS Tracking Unit [13. Accessories – 10th bullet]
8. OBD / CAN interface to read vehicle data (speed, engine, fuel, faults, etc).
9. Power management system.
10. ADAS-DMS System [13. Accessories – last bullet]

From the diagram below, we can get a general idea of the system we need.

FIGURE 1



3. FUNCTIONAL REQUIREMENTS

3.1. Connectivity (GSM) and Networking

- Usage

- The SIM slot should be compatible with the operating band of Sri Lankan telco providers.
- They may be installed either within the main unit or externally.
- Ensure the devices are equipped with automobile mounts so they can be installed in a vehicle and withstand all conditions.
- Local: internal Wi Fi access point for passenger internet (capable of 30–50 concurrent clients)
- Firewall, NAT, and LAN to separate passenger network from operational systems.
- Primary: 4G LTE (Cat 4/6) minimum; optional 5G NR module for future proofing.

- Diagram

- The diagram [Fig.2] provides a general idea of how data communication within the bus and connectivity to the internet should be established.
- A key requirement is that the POS machine must be powered via PoE. Additionally, it should be able to connect to the internet through the network, as well as connect with the main unit.

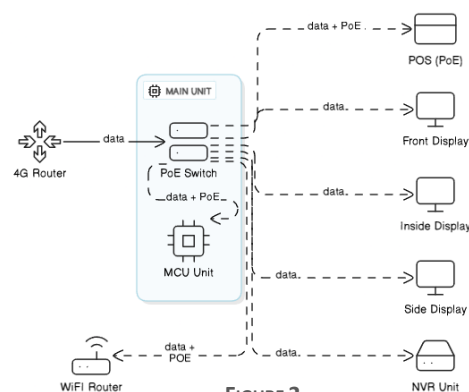


FIGURE 2

3.2. Main Control Unit (MCU)

- Usage

- The local network should either be integrated within this device or installed separately.
- That network must also be connected to the main system.
- All connections, such as GPS, IO BUS, etc., must be connected to the MCU.
- The system should be designed to fit vehicles under automobile stands.
- An HMI (Human Machine Interface) unit with several function keys for the driver must be provided. This unit should also be connected to the main system.

- Technical

- Processor: Industrial-grade ARM or x86 SoC (quad-core or better). Example: ARM Cortex-A53 or Intel Atom-class equivalent.
- RAM: Minimum 4 GB (8 GB recommended)
- Storage: 32 GB eMMC (64 GB recommended)
- Operating System: Embedded Linux or Android (**Software System - No Need**).

3.3. POS Ticketing Terminal

- Usage
 - One machine is required near the front door. After entering from the front, another POS machine is needed near the driver inside the bus. This helps reduce congestion near the front door. Additionally, two machines are required on either side of the main door, bringing the total number of machines to four.
 - A CAT cable connection must be securely available, and through the cable, both internet connectivity and power supply should be provided.
 - A separate Android operating system is required, which connects directly to the internet.
 - A barcode reader capable of reading paper tickets must also be provided.
- Technical
 - The POS machine should be an open-loop type that can run on an Android system.
 - EMV Level 1/2 compliant card reader.
 - NFC/contactless support (MIFARE, ISO14443) and mobile wallet (Apple Pay, Google Pay) compatibility.
 - 2D barcode scanner capable of reading PDF417 codes.
 - Display for Indicate Tap-in and Tap-out.
 - Buzzer speaks to indicate a tap sound.
 - Connectivity: local LAN (POE) to MCU.
 - Power: LAN (POE) Power Over Ethernet Line.

3.4. Passenger-facing displays

- Usage
 - A large display is required at the front of the bus. The display design should follow the specifications mentioned in the procurement book under [10. Body - Destination indicator boxes].
 - Inside passenger information system (Front, side) – To have an audiovisual information system permitting API control/ recorded/ digitalized human speech/ visual messages to the bus regarding the bus stop point, if the display panel should be min.450 x 250mm
- Technical
 - Control: MCU provides text, icons, and animation support via API.
 - Interfaces: Ethernet controller support.

3.5. Camera System (CCTV)

- Previous mention: [13. Accessories – 12th bullet]
- Control: Full access is required for the main control system.
- Cameras: front-facing, rear-facing, 1–4 interior cameras depending on coverage.
- Resolution: 1080p minimum; support for H.264/H.265 hardware encoding.
- Storage: Circular recording on local SSD.
- Secure access: encrypted storage and authenticated remote access.

3.6. Driver Talkback / Intercom

- Full-duplex voice channel between driver and control center.
- noise-cancelling microphone and speaker.
- Emergency/panic button integration to prioritize calls and flag vehicle location.

3.7. GPS Tracking.

- Multi-GNSS receiver (GPS+GLONASS+BeiDou/Galileo) for fast TTFF and redundancy.
- Accuracy: <2.5 m typical with SBAS support; 1–3 Hz update rate (configurable).
- Antenna: external active GNSS antenna with fixed mount.
- Communication: It must be connected to the MCU using any protocol.

3.8. OBD / CAN Bus Integration

- Interface: dependent on Bus
- Readouts: vehicle speed, RPM, fuel level, fuel consumption, DTCs (diagnostic trouble codes), odometer, door sensors.

3.9. Power Management System

- The device should be capable of operating with the battery of the bus, the unit should also have an internal backup battery (6 hours), and the battery charge should be indicated in the unit. A battery charging facility should be automatic.

3.10. ADAS-DMS System

- Alcohol interlock: The driver is allowed to operate the bus only after an alcohol test is conducted using a device installed in the bus, based on the result obtained from that test.
- Adaptive Cruise Control: Automatically adjusts vehicle speed to maintain a safe distance from the car ahead.
- Automatic Emergency Braking: Detects imminent collisions and applies brakes autonomously if the driver does not react in time.
- Forward Collision Warning: Warns of potential collision risks with vehicles or obstacles ahead.
- Blind Spot Detection: Alerts drivers to vehicles in their blind spots.
- Rear Cross Traffic Alert: Helps detect crossing vehicles or pedestrians when reversing.
- Parking Assistance: Guides or automates parking maneuvers in tight spaces.
- Driver Drowsiness Detection: Monitors driver behavior and alerts if fatigue or inattention is detected.
- Night Vision: Enhances low-light visibility using infrared cameras.

3.11. Testing Validations

- Provide the ability to test all devices in the system by installing interpretable software or by following some guidelines.
- If any manuals or datasheets are required for this, make them available.

Section VII – Special Conditions of Contract	
CC15.1	The method and conditions of payment to be made to the Supplier under this contract shall be as follows: Supplier is expected to supply the buses as per the order placed by the Secretary or officers authorized by him. Payment will be made within 30 days by the purchaser after acceptance by an acceptance committee of the Ministry of Transport, Highways, Ports & Civil Aviation To be amended as The method and conditions of payment to be made to the Supplier under this contract shall be as follows: Supplier is expected to supply the buses as per the order placed by the Secretary or officers authorized by him. Advance payment will be given 30 % of the LC value with the advance guarantee. Balance payment will be made within 30 days by the purchaser after acceptance by an acceptance committee of the Ministry of Transport, Highways, Ports & Civil Aviation