

**TENDERERS' REQUESTS FOR CLARIFICATIONS TO THE SUPPLY TENDER DOSSIER AND RESPONSES OF THE CONTRACTING AUTHORITY (No.1)**

**Contract Title:** Supply of Equipment for Sustainable and Smart Mobility Strategy Plan for Gaziantep

**Publication Ref.:** NEAR/ANK/2024/EA-OP/0046

**QUESTION-1:**

We hereby kindly request three weeks of time extension for deadline of bid submission date to submit more competitive and comprehensive proposal. Due to the scope and volume of the technical and administrative documents to be submitted with the bid, the requested extension of time is crucial for us to ensure that our bid complies with the specification requirements. We kindly ask you for your understanding.

**QUESTION-2:**

**Terms of procurement:**

*Deadline for receipt of tenders: 09/08/2024 16:00:59 (UTC+3)*

The processes of collecting the documents requested in the tender and obtaining prices from the suppliers of the systems to be used in the vehicle are taking longer than expected and it is requested that the tender date be extended by at least 4 weeks.

**ANSWER-1 and 2:**

Deadline for receipt of tenders remains unchanged as defined in Article 5.1.12 of the Contract Notice.

**QUESTION-3:**

For the following criterion, is it possible to add the 'or' statement? The tenderer has delivered supplies (proportion carried out by the candidate) under at least one contract with a budget of at least EUR 500.000,00 or at least two contracts with a budget of at least EUR 250.000,00 each in supply traffic management system and/ (or) IT equipment implemented during the reference period.

**QUESTION-4:**

We request that the required job completions for the tender (At least one contract with a budget of at least 10,500,000.00 Euros, or two contracts each with a budget of at least 7,500,000.00 Euros) not only cover electric buses but also include electric, diesel, and CNG buses.

**QUESTION-5:**

Main Article : LOT5- Electric bus and charging station.

Topic Nr. : Technical capacity

### **Specification Text**

based on items 5 and 6 of the request to participate form for service contracts and on items 5 and 6 of the tender form for supply contracts). The reference period which will be taken into account will be the last three years from submission deadline. The tenderer has delivered supplies (proportion carried out by the candidate) under at least one contract with the budget of at least EUR 10.500.00,00 or at least two contracts with a budget of at least EUR 7.500.00,00 each in supply of electric buses implemented during the reference period.

### **Requested Change**

We request that the work stoppage is not only for electric buses and/or to be replaced with diesel, CNG buses.

### **ANSWER-3 to 5:**

The Technical capacity criteria for all Lots remains unchanged as defined in Article 16 of the Additional Information about the Contract Notice.

### **QUESTION-6:**

Instructions to tenderers, Article No: 20.6

#### ***Existing version of article:***

The sole award criterion will be the price. The contract will be awarded to the lowest compliant tender.

#### ***Proposed version of article:***

The contract will be awarded by using scoring criteria for each of the below points: - vehicle price-energy consumption ( SORT 2 )- pre-conditioning- Battery fire prevention / warning system- Driving assistance systems- Charge management system

**Reason:** To procure the goods of the highest quality at the most affordable price, the selection criterion set out in this article can be diversified in terms of passenger and environmental safety and the total cost of ownership. When the life time of a bus is considered as min. 10 years, it is not for the benefit of the Administration if the pricing is set out as the only criterion. Following evaluation criteria can be added to the tender book: Energy consumption, charge management systems, driving assistance systems, lifetime of buses, availability of spare parts, total cost of ownership and performance of the batteries.

### **ANSWER-6:**

The procedure for the evaluation of tenders remains unchanged as defined in Article 20 of the Instructions to Tenderers.

**QUESTION-7:**

There is no information on the tender guarantee for lots other than lot 5, are we supposed to give you a tender guarantee for the other lots as well?

**ANSWER-7:**

Tenderers must provide a tender guarantee of EUR 200.000 for only Lot 5 for when submitting their tender. Please refer to the Article 23 of the Instructions to Tenderers.

**QUESTION-8:**

To Contracting Authority, In Technical specifications document of the electric bus for LOT 5 it is mentioned that “The battery shall be Li-ion LFP or LTO.” with point 5.1.4.2. Lithium-ion batteries with NMC technologies offer a balanced overall package of competitive costs, high energy densities, long service life and high operational reliability. They are therefore very popular with manufacturers of electric cars. MAN is also relying on Li-ion NMC technology in the Lion's City E. MAN is currently the market leader of Europe regarding electric buses and this was achieved by using NMC type batteries that has proved itself on the field. Due to their lower energy densities, LFP or LTO batteries are not suitable for use in the MAN Lion's City E. Therefore, inclusion of NMC type batteries in the technical specifications will directly affect our decision to participate in this tender. We are awaiting your response on the matter?

**QUESTION-9:**

**5.1.4 Batteries**

**5.1.4.2 The battery shall be Li-on types; LFP or LTO**

NMC batteries are smaller in size than LFP batteries, contain a higher capacity density and the higher density means they can store more energy in a given volume or weight. They perform better than LFP batteries for situations requiring high voltage and power. NMC batteries also perform better at low temperatures. In order to increase the competition between manufacturers in the tender, is it appropriate for the authority to change the clause specified in the above specification article as follows?

The battery shall be Li-on types; NMC, LFP or LTO.

**QUESTION-10:**

1.Type of batteries used: NMC Technologie accepted in Li-Ion LFP or LTO: 5.1.4.2 The battery shall be Li-ion types; LFP or LTO. Question: This requirement is preventing companies who use superior NMC battery technology (mainly European suppliers) to attend the tender and prevent fair competition. Please confirm if NMC batteries are accepted.

**QUESTION-11:**

Specification text • The battery shall be Li-ion LFP or LTO. Explanation Battery packs with Lithium Ion based NMC, NCM, LFP chemistries are used to meet long range demands in electric buses with a single charge. Due to its energy density, LTO chemical is not suitable for long-range electric buses on a single charge. Therefore, we request the addition of Lithium-based NMC Batteries. All battery packages are produced and certified in accordance with the ECE R100 standard. Therefore, safety levels are equal for every chemical. We request that the item be as follows: The battery shall be Li-ion types; LFP, or NMC.

**QUESTION-12:**

c4f\_annexiitechspec, 5.4.1 Batteries, Article No: 5.1.4.2

***Existing version of article:***

The battery shall be Li-ion types; LFP or LTO.

Proposed version of article:

The battery shall be Li-ion types; LFP, LTO or NMC.

**Reason:** Several bus producers are using NMC type of batteries in their e-buses. Not allowing NMC batteries will result in disqualification of several manufacturers and this will reduce the competition at the tender. NMC batteries have better energy density per kg which enables customers to reach the desired range in their daily operations with a reduced charging cycle. In addition, there are more than two thousand e-buses with NMC batteries running throughout the world without customer complaints.

**ANSWER-8 to 12:**

The Article 5.1.4.2 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-13:**

In Article 5.1.12.1 of the tender technical specifications "behind the driver's cabin there shall be a minimum 21" LCD flicker-free screen mounted at a height visible to all passengers" was requested. We request that it be changed to "There will be two 19" LCD monitors that will be positioned in the center of the vehicle and will be visible from both sides of the vehicle" due to "Reducing the screen size will

be in the interest of the Administration, and having 2 screens will also allow passengers in the rear to benefit from it.

**ANSWER-13:**

The Article 5.1.12.1 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-14:**

In Article 5.1.15.14 of the tender technical specifications “Vehicle heating or cooling shall be carried out without using any external fuel other than electricity” was requested. We request that it be changed to “The bus shall have a preheater.” due to “It is important for the Administration, which will operate the vehicle, to have a preheater in terms of the efficiency of the batteries (no loss of range, etc.) in the current winter conditions and after the warranty period ends.

**ANSWER-14:**

The Article 5.1.15.14 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-15:**

**In article II. Design and Manufacturing of the tender technical specifications;**

*II. Design and manufacture: The Minimum Mean Distance Between Failure (MDBF) and Mean Distance Between Service Failure (MDBSF) values shall be given at the design stage. The MDBF value for the entire fleet shall not be below 15,000 km operating values and the MDBSF value shall not be below 150,000 km operating values. The data that shall be the basis for MDBF and MDBSF calculations shall be collected during the 6-month period in the passenger operation after the Provisional Acceptance of the last vehicle. For calculations; 20 electric buses shall be taken as basis. If MDBF and MDBSF values are not below the above-mentioned values for the entire fleet, the reliability of the vehicles shall be confirmed. If these values are below the specified values for the entire fleet; GMM and the contractor shall jointly examine the vehicle or specific systems. Corrective and preventive action on system or equipment shall continues until the guaranteed values are reached. In this case, the improved system shall be examined and warranty period shall be extended until a permanent solution is found. During MDBF and MDBSF tests GMM shall keep operating mileage records of the vehicles and monthly report malfunctions, reliability, and availability.*

published. Since it seems more appropriate to provide the specified values for major failures, we request clarification.

**ANSWER-15:**

Achievable values are requested in the ANNEX II + III: Technical Specifications + Technical Offer.

The relevant statement remains unchanged as defined in the section of II. Design and manufacture for the LOT 5 – Electric bus and charging station in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-16:**

**In article II. Design and Manufacturing of the tender technical specifications;**

*The batteries shall be under warranty by the contractor for at least 5 (five) years (except in cases of accidents and vandalism) which shall ensure 80% maintained state of charge. In this regard, the contractor shall submit the warranty document. Capacity measurements of the battery shall be made every year during the warranty period and shall be submitted to GMM. These measurements shall be recorded and the battery packs that do not meet the conditions and are found to have deteriorated that shall adversely affect the daily cruising distance km figures shall be replaced by the contractor. When the batteries show any malfunction or complete economic life within the warranty period, disposal procedures shall be carried out by the contractor, and the contractor shall not charge any fee. After 5-year battery warranty period is over, the disposal procedures shall be carried out by GMM. The charging stations shall be fully compatible with the designated Fleet Management System (FMS). The compatibility shall encompass seamless integration, allowing for effective communication and data exchange between the charging stations and the Fleet Management System. The charging stations shall support the necessary protocols and interfaces as specified by the Fleet Management System to ensure optimal functionality.*

Published. Fleet Management system communication protocols used by the administration should be shared.

**ANSWER-16:**

The required information must be provided via the RS-485 port.

**QUESTION-17:**

**In article II. Design and Manufacturing of the tender technical specifications;**

*All charging stations covered by this agreement shall possess the capability to communicate instantly with the Fleet Management System. This instant communication shall enable real-time monitoring, control, and data retrieval from the charging stations without any significant delay. The communication process shall adhere to industry standards for efficiency and reliability. The Fleet Management System shall have the capability to instantly retrieve comprehensive and up-to-date information from each*

*charging station within the network. This information shall include but is not limited to charging status, energy consumption, operational diagnostics, and any relevant data necessary for effective fleet management. The charging stations shall be equipped with the necessary sensors and communication modules to facilitate this instant information retrieval.*

published. We request that the charging station communication internet provider be made by the Administration (GMM).

**ANSWER-17:**

An RJ-45 and an M2M SIM Module must be added to enable communication with the charging station. Internet may be provided by GMM.

**QUESTION-18:**

**In article II. Design and Manufacturing of the tender technical specifications;**

*During the warranty period, the contractor shall have a roadside assistance team for vehicles that break down during the trip.*

*During the warranty period, all scheduled maintenance, consumable replacements, and repair services for the vehicles shall be performed by the contractor's technical team at GMM's workshop or authorized service center. All spare parts used for repair and maintenance services shall be original parts compatible with the vehicle. The contractor is responsible for repairing the malfunctions that cannot be repaired at the workshops, repairing them at the vehicle manufacturing plant. If the repair is not possible, the contractor is obliged to replace the faulty equipment with a new one. During the warranty period, if a malfunction covered by the warranty occurs for the same reason in more than 10% of the same device, unit, equipment, component or part within the last 12 months, malfunction shall be considered as a type defect / chronic malfunction. For equipment, units, devices, parts, and other determined to be chronically defective, the contractor shall carry out needed reinforcements, modification, material replacement, renewal, disassembly, and assembly operations for all vehicles within the specified period. The contractor shall be responsible for any equipment (devices, materials, components, etc.) sourced from aftermarket suppliers and used on the vehicles during the manufacturing or warranty period. Any problems arising from such equipment shall be the sole responsibility of the contractor. The maintenance and repair work carried out by the contractor shall be monitored by GMM.*

published. We request that it be amended as follows.

During the warranty period, the contractor will have a roadside assistance team for vehicles that break down during the journey.

During the warranty period, all scheduled maintenance, consumable replacements, and repair services of the vehicles will be performed by the contractor's technical team at GMM's workshop or authorized service center. All spare parts used for repair and maintenance services shall be original parts compatible with the vehicle. The contractor is responsible for repairing the faults that cannot be repaired in the workshops at the vehicle production facility. If repair is not possible, the contractor is obliged to replace the defective equipment with a new one. During the warranty period, if a failure within the scope of the warranty occurs in the same device, unit, equipment, component or part for the same reason more than 10% in the last 12 months, the contractor shall submit a technical report and action plan on the root cause of the failure. For equipment, units, devices, components and other, the contractor shall perform the necessary reinforcement, modification, material replacement, renewal, disassembly and assembly operations for all vehicles within the specified period. The contractor shall be responsible for any equipment (devices, materials, components, etc.) sourced from after-sales suppliers and used in vehicles during the production or warranty period. Any problems arising from such equipment shall be the sole responsibility of the contractor. Maintenance and repair work performed by the contractor will be monitored by GMM.

**ANSWER-18:**

The relevant statement remains unchanged as defined in the section of VII. Warranty requirements for the LOT 5 – Electric bus and charging station in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-19:**

**In article II. Design and Manufacturing of the tender technical specifications;**

*VIII. Fleet availability: Fleet availability refers to the operational availability rate of 20 vehicles in the Availability Fleet and shall be calculated daily. A maximum of 2 vehicles shall be reserved for maintenance or breakdown activities, all remaining vehicles shall be included in the total number of vehicles for the Availability rate. The availability ratio shall be found by subtracting the number of vehicles that cannot be put into operation from the total number of vehicles and dividing the number obtained by the total number of vehicles. Example: If 2 of the 20 vehicles that should be ready for operation today could not be put into operation due to maintenance or malfunction, the availability rate shall be calculated as  $(20-2) / 20 = 0.90$ , that is, 90%.*

*Availability rate shall not be lower than 90% for each day. It shall not be accepted for the contractor's after-sales service team to make inter-vehicle or in-vehicle spare parts changes to ensure availability. The contractor shall keep a sufficient variety and quantity of spare parts ready for the Service in its own stock.*



published. We request that it be amended as follows.

VIII. Fleet availability: Fleet availability refers to the operational availability rate of 20 vehicles in the Availability Fleet and will be calculated on a daily basis. A maximum of 2 vehicles will be reserved for maintenance or breakdown activities and all remaining vehicles will be included in the total number of vehicles for the Availability ratio. The availability rate will be calculated by subtracting the number of vehicles that cannot be commissioned from the total number of vehicles and dividing the resulting number by the total number of vehicles. The availability rate shall not be lower than 90% for the total number of days of vehicle operation each month. It will not be accepted for the Contractor's after-sales service team to change spare parts between vehicles or within vehicles to ensure availability. The Contractor shall keep in its own stock a sufficient variety and quantity of spare parts for the Service.

**ANSWER-19:**

The relevant statement remains unchanged as defined in the section of VIII. Fleet availability for the LOT 5 – Electric bus and charging station in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-20:**

In the article 5.2.13. Charging Station of the tender technical specifications, the phrase “Charging sockets on the bus; against dust and water min. It shall have IP56 protection class and shall have VDE or equivalent international certificate.” was requested. Since the protection class requested in the relevant article will be included in the scope of special production supply, it will increase the costs on behalf of your Ministry and the Administration. For this reason, we request that the request be amended as “Charging sockets on the bus; against dust and water min. It shall have IP54 protection class and shall have VDE or equivalent international certificate.”

**ANSWER-20:**

The Article 5.2.13 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-21:**

Specification text • Copy of the original type approval certificate which contains the brand, type and commercial name of the offered electric buses, showing that they have been homologated in the M3 category by a competent authority in one of the EU member states. Explanation As the vehicle configuration changes, the type approval also expands and changes. For this reason, we request that the type approval of the vehicle we propose be requested at the first delivery of the vehicles. We kindly request that the type approval (even if it is not the recommended tool) issued by the competent authorities in Europe be sufficient at the tender stage. We request that the item be as follows: The bidder will submit

the Type approval certificate of the electric bus at the bidding stage, and is obliged to submit the type approval of the proposed vehicle upon delivery of the first vehicle.”

**ANSWER-21:**

The type approval certificate shall be submitted by tenderer along with its offer as defined in Part 3 Documentation in the Article 11 of the Instructions to Tenderers.

In case of a change in the vehicle configuration depending on the technical specification, new type approval certificate (if needed) shall be submitted by the contractor during the first delivery.

**QUESTION-22:**

**Submission of type approval certificates:**

*The tenderer is required to submit supporting documents for the personnel proposed along with its offer. For Lot 5; The test report that the batteries and/or electric buses have successfully passed the safety tests required by ECE-R100 or international equivalent standards obtained from independent test organizations;*

In order to increase competition and ensure the participation of more manufacturers, it is requested that type approval be changed from during the tender application to during the signature of the contract. Since approval processes take time, this request has been submitted for your consideration.

**ANSWER-22:**

The test report that the batteries and/or electric buses have successfully passed the safety tests required by ECE-R100 or international equivalent standards obtained from independent test organizations shall be submitted by the tenderer along with its offer as defined in Part 3 Documentation in the Article 11 of the Instructions to Tenderers.

The type approval certificate shall be submitted by tenderer along with its offer as defined in Part 3 Documentation in the Article 11 of the Instructions to Tenderers. In case of a change in the vehicle configuration depending on the technical specification, new type approval certificate (if needed) shall be submitted by the contractor during the first delivery.

**QUESTION-23:**

Specification text • The test report that the batteries and/or electric buses have successfully passed the safety tests required by ECE-R100 or international equivalent standards obtained from independent test organizations. Explanation We request that the item be as follows: The test report showing that the batteries and/or electric buses have successfully passed the safety tests required by ECE-R100.2 (or its more recent version) or international equivalent standards obtained from independent testing organizations will be submitted to the administration upon first vehicle delivery.

**ANSWER-23:**

According to the requirement in the LOT 5 – Electric bus and charging station of the ANNEX II + III: Technical Specifications + Technical Offer: "A test report from an independent testing organization must be obtained to confirm that the batteries and/or electric buses have successfully passed the safety tests required by ECE-R100 or international equivalent standards. The contractor must demonstrate compliance with **the requirements of the latest version of the relevant safety and testing standard** and present the test report to GMM upon vehicle delivery."

Therefore, there is no need for a change.

**QUESTION-24:**

Specification text Delivery time • The contractor shall deliver Electric Buses and Charging Units within 300 calendar days from the date of the contract, in a ready-to-use condition. The entire supply shall be delivered in a single instalment within the specified delivery period. Explanation We request that the period be increased from 300 days to 365 days due to the delivery problems experienced worldwide in the supply of products (components such as HV Batteries, Engines, Inverters, etc.) within the scope of the Drive system used in electric vehicles. We request that the item be as follows: The contractor shall deliver Electric Buses and Charging Units within 365 calendar days from the date of the contract, in a ready-to-use condition. The entire supply shall be delivered in a single instalment within the specified delivery period.

**ANSWER-24:**

The Delivery Time remains unchanged as defined in section of IV. Delivery for LOT 5 – Electric bus and charging station in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-25:**

Specification text • Single vehicle daily service total distance: 324 km Explanation The daily operating km stated in the specification is 324 km. However, in a different article of the Specification, the vehicle is required to travel 200 km on abandon charge with the HVAC system activated. How long does it take to recharge the vehicle during the day? Will he travel 324 km every day? Can you further explain the item requested above? To calculate the warranty period of the batteries, we need to know the operating conditions of the vehicle.

**ANSWER-25:**

The vehicle's anticipated service range is calculated as 324 km. Under Sort 2 test conditions, a minimum range of 350 km is required with a fully charged battery and HVAC system off, while a minimum of 200 km is required with the HVAC system on. The vehicle's operating conditions are detailed in the Article 5.1.0 and the Article 5.1.4 of the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-26:**

In the tender it is required: 5.2.1 : A charging unit AC-DC shall charge 2 vehicles at the same time within maximum 6 hours (from %0 to %100). Charging unit shall be suitable for the fast charging. 5.2.12: Chargers shall operate at 300kW DC-DC and charge plugs shall have the appropriate current and voltage capacity for fast charging and shall be of the appropriate type. We ask confirmation that the charging stations shall be 300kW double plug all-in-one AC-DC, dimensioned to charge two vehicles at the same time in DC from 0-100% in 6 hours.

**ANSWER-26:**

The charging station's power supply is AC and will charge the vehicle using DC. It has a capacity of 300 kW and is required to charge two vehicles simultaneously, each from 0% to 100%, in less than 6 hours using dual charging plugs.

**QUESTION-27:**

In the tender it is required: 5.2.7 : Charge units should be capable of operating in the open area when appropriate housing is provided. It shall be at least IP 56 protection class. Please confirm whether it will be acceptable to supply a charging station with an IP54 waterproof rating? IP54 provides protection against water jets from all directions. Based on the contractor's experience, IP54 provides sufficient protection under various operating conditions.

**ANSWER-27:**

The Article 5.2.7 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-28:**

Scope of works precision for LOT5 (Bus + Chargers) : Annex II, General requirements, item 1.2: The contractor is fully responsible for proper connections of supplied items to existing infrastructure for smooth installation and operation. Questions: Can you please confirm that the customer will be responsible to build the electric infrastructure from the power cabin up to the charging station. The responsibility of the Tenderer will be to connect the charging stations to pre-existing foundations and cabling. If not, we kindly ask to define what "existing infrastructure" is. Would it be possible to perform a site visit of the deposit to correctly dimension the charging infrastructure?

**ANSWER-28:**

The installation of the charging units will be in the areas designated and prepared by the GMM. The infrastructure in question refers to the necessary energy cables. The GMM is responsible for completing the required infrastructure work up to these areas. The contractor will be responsible for installing and commissioning the charging units in these areas.

Any site visit is not envisaged.

**QUESTION-29:**

c4b\_itt\_eForms\_en\_V1.pdf Instructions to tenderers,

LOT 5 – Electric bus and charging station

Article No: I. Technical documentation to be provided by the tenderer / the contractor:

***Existing version of article:***

Detailed technical report under the SORT 2 test conditions on electric buses, including their cruising capability, consumption values, calculation methods, and conditions (including performance report of 350 km cruising capability with 100% charged battery);

***Proposed version of article:***

Part 3: Documentation

Detailed technical report under the SORT 2 test conditions on electric buses, including their cruising capability, consumption values, calculation methods, and conditions (including performance report of 350 km cruising capability with 100% charged battery). This SORT-2 test report of the batteries should be given by an approved independent accredited organization whose accreditation should be valid both Republic of Türkiye and EU countries. A document showing that this accreditation is valid in Türkiye and EU countries will be submitted in the bid.

**Reason:** It is in the interest of the Administration to ensure the accuracy and reliability of the test reports to the maximum extent. In the recent past, there have been discussions on the accreditation of approval organizations and test results in some tenders. The aim is to prevent such possible inconsistencies.

**ANSWER-29:**

Please refer to the Change to Tender Dossier No.1.

**QUESTION-30:**

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LOT 5 – Electric bus and charging station

Article No: V. Operation / Detection of type defect and sanctions:

***Existing version of article:***

The faulty products that fall under type defects shall be replaced with improved parts. In cases where the parts have been improved or undergone version changes, even if they are not considered type defects by the manufacturer, replacement shall be carried out with the approval of GMM.

***Proposed version of article:***

Cancellation.

**Reason:** The clause should be removed as the decision-making authority regarding the technical issues of the vehicle is the manufacturer.

**ANSWER-30:**

The relevant statement remains unchanged as defined in the section of V. Operation / Detection of type defect and sanctions for LOT 5 – Electric bus and charging station in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-31:**

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LOT 5 – Electric bus and charging station

Article No: II. Design and manufacture

***Existing version of article:***

The Minimum Mean Distance Between Failure (MDBF) and Mean Distance Between Service Failure (MDBSF) values shall be given at the design stage. The MDBF value for the entire fleet shall not be below 15,000 km operating values and the MDBSF value shall not be below 150,000 km operating values.

The data that shall be the basis for MDBF and MDBSF calculations shall be collected during the 6-month period in the passenger operation after the Provisional Acceptance of the last vehicle. For calculations; 20 electric buses shall be taken as basis. If MDBF and MDBSF values are not below the above-mentioned values for the entire vehicle fleet, the reliability of the vehicles shall be confirmed.

If these values are below the specified values for the entire fleet; GMM and the contractor shall jointly examine the vehicle or specific systems.

Corrective and preventive action on system or equipment shall continue until the.

***Proposed version of article:***

Cancellation.

**Reason:** The clause should be removed since MDBF and MDBSF values may differ depending on usage, user/driver, capacity, road and climate conditions.

**ANSWER-31:**

The relevant statement remains unchanged as defined in the section of II. *Design and manufacture* for LOT 5 – Electric bus and charging station in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-32:**

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LOT 5 – Electric bus and charging station

Article No: VII. Warranty requirements

***Existing version of article:***

During the warranty period, if a malfunction covered by the warranty occurs for the same reason in more than 10% of the same device, unit, equipment, component or part within the last 12 months, malfunction shall be considered as a type defect / chronic malfunction.

***Proposed version of article:***

Cancellation.

**Reason:** The clause should be removed since the vehicle fleet to be purchased is relatively small in number and the issues that will fall within the scope of type defects are not clearly stated.

**ANSWER-32:**

The relevant statement remains unchanged as defined in the section of VII. Warranty requirements for LOT 5 – Electric bus and charging station in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-33:**

We would like to clarify that, regarding CCTV cameras, only infrastructure cable preparation can be provided, according to 2021 /1341 DDAW & 2021/1958 ISA regulations, any parts related CCTV like camera recording system etc. can not be provided within the GSR.

**ANSWER-33:**

Camera systems are mandatory on public transport vehicles. Please refer to the Article 5.1.14 of the ANNEX II + III: Technical Specifications + Technical Offer for the required CCTV system.

**QUESTION-34:**

“5.1.6.9 The electronic control units shall be independent of the chassis number and recognizable by the bus system after installation (without the need for any other application).” This article is not clear. Could you please provide detailed information?

**ANSWER-34:**

It is required that the electronic control units used in the vehicle are not vehicle-specific. In case of an emergency, the control unit of a malfunctioning or damaged vehicle should be physically replaceable with the control unit of another vehicle without the need for any programming.

**QUESTION-35:**

"5.1.8.3 Through the "On-board Diagnostics" on the screen, it shall be possible to access the current faults of the control unit, as well as any previously recorded faults (active or passive). Additionally, the ability to delete fault records will be available to the GMM." In this clause, it is possible to connect to the vehicle with a password from OBD and read instant faults. However, it is not possible to delete fault records. Is it possible to change clause as below: "through the "On-board Diagnostics" on the screen, it shall be possible to access the current faults of the control unit, as well as any previously recorded faults (active or passive). "

**ANSWER-35:**

The fault record should be able to be erased by GMM if necessary.

**QUESTION-36:**

"5.1.8.4 Using the screen, the measurement values, fault codes, and other information recorded on the bus shall be available and displayed." In this clause, instead of fault codes, icons appear. Is it possible to change clause as below: "5.1.8.4 Using the screen, the measurement values, fault codes or icons, and other information recorded on the bus shall be available and displayed."

**ANSWER-36:**

The Article 5.1.8.4 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-37:**

Main Article : ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER.

Topic Nr. : 5.1.1 Main functional requirements

**Specification Text**

Bus type: 18m Articulated 4-door electric bus with batteries and overnight fast charging at the depot only.



Electricity consumption: Maximum 1.4 kWh/km, under SORT 2 test conditions.

The bus shall be the model of the delivery year.

### **Requested Change**

Who will be responsible for the infrastructure of the electricity charging units?

#### **ANSWER-37:**

The installation of the charging units will be in the areas designated and prepared by GMM. Infrastructure in this context refers to the necessary energy cables. GMM is responsible for completing the required infrastructure work up to these areas. The contractor will install and commission the charging units in these areas.

#### **QUESTION-38:**

The requested changes in the technical specification are below:

In the technical specification:

To update the clause 4.2.3 as follows:

The server shall have at least two physical processors. The server shall have a minimum of 64 cores, be 64-bit, and run with a frequency speed of 5.2 GHz. Each server shall have a minimum of 120MB smart cache memory and a maximum of 540-Watt TDP power consumption.

To update the clause 4.3.3 for TDP as follows:

The server shall have at a minimum of one physical processor. Each server shall have a minimum of 20 cores, be 64-bit, and run with a frequency speed of 2 GHz. Each server shall have a minimum of 27.5 MB L3 cache memory and a maximum of 165-Watt TDP power consumption.

#### **ANSWER-38:**

The Article 4.2.3 and 4.3.3 remain unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

#### **QUESTION-39:**

4.1.3 - The server shall have at a minimum of one physical processor. Each server shall have a minimum of 8 cores, be 64-bit and run with a base frequency speed of 2.5 GHz as minimum, as minimum of 12 MB cache memory and a maximum of 140-Watt TDP power consumption. This specification is for older generation procesors, a global company like HP can't bid for this tender as they don't use older generation processors on newer products. We kindly request to change this specification to ensure more competition as below: The server shall have at a minimum of one physical processor. Each server shall have a minimum of 8 cores, be 64-bit and run with a base frequency speed of 2.6 GHz as minimum, as minimum of 22.5 MB cache memory and a maximum of 125-Watt TDP power consumption.

**ANSWER-39:**

The Article 4.1.3 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-42:**

4.1.4 - The server shall have a minimum of 16 GB and 2666 MHz DDR4 memory available. This specification is for older products, new generation RAMs are being used on newer products. We kindly request to change this specification to ensure more competition for price below: The server shall have a minimum of 16 GB and 5600 MT/s DDR5 memory available.

**ANSWER-42:**

The Article 4.1.4 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-43:**

4.1.8 - The server shall have at least 12Gbps 8gb cache hardware raid controller and servers support at least RAID 0,1,5,50,6,60. To ensure more encrypted security for the disks, we would like to add the below specification as new-gen servers have this specification: The server RAID controller will have encryption support. The server RAID controller will be able to perform the encryption process itself and will not use the central processor unit resources. If a license is required for this feature, it will not be included in the offer at this time. If central processing unit resources will be used for encryption, the server will be offered with the highest supported processor model and maximum supported capacity.

**ANSWER-43:**

The Article 4.1.8 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-44:**

4.2.3 - The server shall have at least two physical processors. The server shall have a minimum of 64 cores, be 64-bit and run with a frequency speed of 5.2 GHz. Each server shall have a minimum of 128MB smart cache memory and a maximum of 400-Watt TDP power consumption. This specification is for older generation processors, a global company like HP can't bid for this tender as they don't use older generation processors on newer products. We kindly request to change this specification to ensure more competition as below. The server shall have at least two physical processors. The server shall have a minimum of 64 cores, be 64-bit and run with a frequency speed of 2.0 GHz. Each server shall have a minimum of 320MB smart cache memory and a maximum of 330-Watt TDP power consumption.

**ANSWER-44:**

The Article 4.2.3 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-45:**

4.2.4 - The server shall have at least 128 GB and 3200 MHz DDR4 memories mounted on them. This specification is for older products, new generation RAMs are being used on newer products. We kindly request to change this specification to ensure more competition for price below: The server shall have at least 128 GB and 5600 MT/s DDR5 memories mounted on them.

**ANSWER-45:**

The Article 4.2.4 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-46:**

4.2.8 - The server shall have at least 12Gbps 8gb cache hardware raid controller and servers support at least RAID 0,1,5,50,6,60. To ensure more encrypted security for the disks, we would like to add the below specification as new-gen servers have this specification: The server RAID controller will have encryption support. The server RAID controller will be able to perform the encryption process itself and will not use the central processor unit resources. If a license is required for this feature, it will not be included in the offer at this time. If central processing unit resources will be used for encryption, the server will be offered with the highest supported processor model and maximum supported capacity.

**ANSWER-46:**

The Article 4.2.8 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-47:**

4.2.12 - The server shall have at least two redundant 800W power supply. This specification is for smaller configs, more powerful power supplies should be used for this kind of bigger configs. We kindly request to change this specification as below to ensure more competition. The server shall have at least two redundant 1000W Titanium power supply.

**ANSWER-47:**

The Article 4.2.12 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-48:**

4.3.4 - The server shall have a minimum of 32 GB and 2666 MHz DDR4 memory available. This specification is for older products, new generation RAMs are being used on newer products. We kindly

request to change this specification to ensure more competition for price below: The server shall have a minimum of 32 GB and 4800 MT/s DDR5 memory available.

**ANSWER-48:**

The Article 4.3.4 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-49:**

4.3.8 - The server shall have at least 12Gbps 8gb cache hardware raid controller and servers support at least RAID 0,1,5,50,6,60. To ensure more encrypted security for the disks, we would like to add the below specification as new-gen servers have this specification: The server RAID controller will have encryption support. The server RAID controller will be able to perform the encryption process itself and will not use the central processor unit resources. If a license is required for this feature, it will not be included in the offer at this time. If central processing unit resources will be used for encryption, the server will be offered with the highest supported processor model and maximum supported capacity.

**ANSWER-49:**

The Article 4.3.8 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-50:**

4.3.10 - The server shall have at least two redundant 800W power supply. This specification is for smaller configs, more powerful power supplies should be used for this kind of bigger configs. We kindly request to change this specification as below to ensure more competition. The server shall have at least two redundant 1000W Titanium power supply.

**ANSWER-50:**

The Article 4.3.10 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-51:**

4.4.1 Backbone switch shall have at least 8 10/100 TX RJ-45 ethernet ports on it. The wanted product is a backbone switch, and they work as 10/100/1000Base-T, we kindly request you to change this specification as below: Backbone switch shall have at least 24 10/100/1000Base-T ethernet ports on it.

**ANSWER-51:**

The Article 4.4.1 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-52:**

4.4.2 Backbone switch shall have at least 2 SFP slots fiber ports on it. The 2 port specification is too little for these types of big switches, we kindly request you to change this specification as below to ensure more competition. Backbone switch shall have at least 4 SFP slots fiber ports on it.

**ANSWER-52:**

The Article 4.4.2 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-53:**

4.4.3 Backbone switch shall support traffic shaping, VLAN (802.1Q) tagging, QoS, GMRP and IGMP. The specification GMRP is only one manufacturer's specification and this limits competition, we kindly request you to change this specification as below: Backbone switch shall support traffic shaping, VLAN (802.1Q) tagging, QoS, GMRP or IGMP. 4.4.6 Backbone switch shall provide BGP capability. Only one brand can meet this specification, we kindly request you to remove this to ensure more competition.

**ANSWER-53:**

The Article 4.4.3 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-54:**

4.4.8. Backbone switch shall include as minimum 2 x 1000-Base SX/LX SFPs with a power supply. There are no power supplies on SFP modules, we kindly request you to change this specification as below: Backbone switch shall include as minimum 2 x 1000-Base SX/LX SFPs. 4.4.12. Backbone switch shall operate as minimum between 0 - +50 C. This specification can only be met by one manufacturer, other manufacturers can't bid because of this specification, we kindly request you to change this specification as below to ensure more competition. Backbone switch shall operate as minimum between 0 - +45 C.

**ANSWER-54:**

The Article 4.4.8 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-55:**

4.4.14 Backbone switch shall have protection class IP20 as minimum. The protection class is not being specified on indoor switches anymore, this limits HP from bidding. We kindly request you to remove this specification.

**ANSWER-55:**

The Article 4.4.14 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-56:**

4.5.7 - Memory type shall be DDR5. We kindly request you to change this item as below to enable local manufacturers to bid and allow more competition. Memory type shall be DDR4. 4.5.15 - Shall comply with CE and Energy Star compliance We kindly request you to remove this item to enable local manufacturers to bid and allow more competition.

**ANSWER-56:**

The Article 4.5.7 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-57:**

4.7.1 - Screen diagonal: minimum 11". We have done a market research and couldn't find many products that are being manufactured and we can't find many prices on products that meet the specifications. We kindly request you to change this item to ensure more competition as below: Screen diagonal: minimum 10".

**ANSWER-57:**

The Article 4.7.1 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-58:**

4.7.2 - Screen resolution: minimum 2300x1600. We have done a market research and couldn't find many products that are being manufactured and we can't find many prices on products that meet the specifications. We kindly request you to change this item to ensure more competition as below: Screen resolution: minimum 2000x1200.

**ANSWER-58:**

The Article 4.7.2 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-59:**

4.7.6 - Main camera resolution: minimum 12MP. We have done a market research and couldn't find many products that are being manufactured and we can't find many prices on products that meet the specifications. We kindly request you to change this item to ensure more competition as below: Main camera resolution: minimum 8MP. 4.7.7 - Front camera resolution: minimum 8 MP. We have done a market research and couldn't find many products that are being manufactured and we can't find many prices on products that meet the specifications. We kindly request you to change this item to ensure more competition as below: Front camera resolution: minimum 5MP.

**ANSWER-59:**

The Article 4.7.6 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-60:**

4.7.9 - Operating system: preinstalled operating system 64bit. This specification requires Windows 64bit and there are no Windows tablets that meet these specification. We kindly request you to remove the 64bit specification.

**ANSWER-60:**

The Article 4.7.9 remains unchanged as defined in the ANNEX II + III: Technical Specifications + Technical Offer.

**QUESTION-61:**

Annex Tech specification tech offer, Technical Specifications

How long will the gate length of the automatic barrier be?

**ANSWER-61:**

The gate length of the automatic barrier will be determined during the implementation phase, depending on the physical characteristics and layout of the park area.

**QUESTION-62:**

**Annex Tech specification tech offer LOT-2, Technical Specifications**

We checked one of coordingates.

The detalization is not enough to understand how and where we can install the sensors.

We should know:

1. Are there any pillars or system integrator need to install them?
2. Electricity? Or we should offer solar panel power system?

3. WiFi connectivity? Or we should offer 4G devices?

**ANSWER-62:**

Please refer to the Article 3.8. "Installation and Commissioning Requirements" in in the ANNEX II + III: Technical Specifications + Technical Offer.

The contractor will be responsible for supplying and constructing the poles where sensors will be deployed. The contractor should use existing poles and structures provided by GMM.

Given that power requirements may differ based on the proposed solution by the contractor, the contractor must utilize existing electricity from the nearest municipality cabinet or a solar panel. The contractor is responsible for all cabling.

Regarding network communication, if a municipality fiber cabinet is available, the contractor is responsible for the cabling. If there is no fiber cabinet nearby, the contractor shall use 4G, with GMM providing 4G SIM cards.

LOT 2 equipment also includes edge switches.