

TERMS OF REFERENCE
SUPPLY, DELIVERY, PRE-COMMISSIONING, COMMISSIONING AND RE-TEST
OF ELECTRIC CITY BUSES FOR QUEZON CITY GOVERNMENT

I. BACKGROUND

It is one of Quezon City Government's visions to create a safe, sustainable and resilient city for its constituents. Hence, in 2020, at the onset of the Coronavirus Disease 2019 (COVID-19) Pandemic where the public was heavily burdened by the suspension of public transportation and the decrease in volume and capacity of the public utility vehicles (PUVs) to service the commuters, the City implemented the Bus Augmentation Program which was later institutionalized as Ordinance No. SP-3184, S-2023, otherwise known as the "QCity Bus Ordinance."

In accordance to said QCity Bus Ordinance, the City's commitment in reducing 30% of the greenhouse gas emissions by 2030, and in compliance with Republic Act No. 11697 otherwise known as the "Electric Vehicle Industry Development Act or EVIDA Law" which states that Government Fleets shall ensure that at least five percent (5%) of their fleet, whether owned or leased, shall be electric vehicles, the transition to electrification of the City's service vehicles, starting specifically with electric buses, was conceptualized to help in reducing the City's dependence on the conventional Internal Combustion Engine (ICE) buses which as per studies, impact 25% of the black carbon emission on the transportation sector in the world.

This project is envisioned to serve the people of the City and to support the City's programs. In addition, the implementation and operation of this project shall be guided by the principles of environmental sustainability, accountability and good governance, and the best interest of the constituents of Quezon City.

II. PROJECT DESCRIPTION

The project is to provide transportation to the people of the Quezon City Government by utilization of the electric city buses. In addition, it is expected for augmentation with the existing city buses on the current city bus routes should the need arise. The City Government shall utilize its manpower for the

deployment of drivers and conductors which will be sourced from City General Services Department and Traffic and Transport Management Department.

III. OBJECTIVES

This project aims to provide safety, convenience, and comfort to the constituents by providing local government service vehicles which complies with the commitment of the city in reducing carbon emissions by utilizing electric buses instead of conventional diesel powered buses.

IV. SCOPE OF WORK

The Supplier shall be responsible for all aspects of the permitting, government approvals, detailed engineering investigations, design, manufacture, procurement, supply shipping, logistics, transportation to site, security and importation, storage, delivery, site management, and coordination, in line with the supply and delivery of the electric buses.

Specifically, the Supplier will take the lead in completing the following tasks and activities:

Scope of Work	Minimum Activities	Delivery Schedule
A. Application for importation and other necessary documents	<ul style="list-style-type: none">• The Supplier shall apply and secure the necessary permits and certifications in accordance with the Bureau of Customs, Land Transportation Office, Department of Energy, and/or other equivalent standards.• The Supplier shall apply and secure necessary permits and documents in accordance with the rules and regulations of the Quezon City Hall Compound.	<ul style="list-style-type: none">• <i>As detailed in Annex A – Work Schedule</i>
B. Supply, Delivery and Registration of Eight (8) Electric Buses compliant to the specifications	<ul style="list-style-type: none">• The Supplier shall inspect the technical specifications of the electric buses in the presence of the Office of the City Administrator, Local Economic	<ul style="list-style-type: none">• <i>As detailed in Annex A – Work Schedule</i>

<p>detailed in <i>Section VI. Project Standard and Requirements</i></p>	<p>Investment Promotions Office, Traffic and Transport Management Department, City General Services Department, Climate Change and Environmental Sustainability Department and other concerned offices to validate compliance with the project standards and requirements.</p> <ul style="list-style-type: none"> • The Supplier shall turn-over the Official Receipt and Certificate of Registration (OR/CR) of the electric buses. 	
<p>C. Pre-Commissioning and Commissioning Tests of Electric Buses as detailed in <i>Section VII. Pre-Commissioning and Commissioning Tests</i></p>	<ul style="list-style-type: none"> • Upon completion of delivery of the Electric Buses, the Supplier shall perform pre-commissioning and commissioning tests in the presence of Office of the City Administrator, Local Economic Investment Promotions Office, Traffic and Transport Management Department, City General Services Department, Climate Change and Environmental Sustainability Department and other concerned offices to validate compliance with the TOR and Bid Documents. • All deficiencies encountered during testing and commissioning must be rectified and subjected for re-testing. Expenses and incidental costs for re-testing shall be shouldered by the Supplier. 	<ul style="list-style-type: none"> • <i>As detailed in Annex A – Work Schedule</i>
<p>D. Initial Training and Technology Transfer as detailed in <i>Section VIII. Training</i></p>	<ul style="list-style-type: none"> • The Supplier shall conduct necessary capacity building trainings for authorized City Personnel(s) on proper operation, monitoring and maintenance of the Electric Buses at least fourteen (14) days upon delivery. 	

	<ul style="list-style-type: none"> • A Certificate of Completion or Attendance shall be issued to the participants of the trainings. 	
E. Turn-over of relevant documents to the City Government	<ul style="list-style-type: none"> • The Supplier must turn-over the relevant documents after project completion as indicated in <i>Annex B – Project Handover Documents</i>. 	<ul style="list-style-type: none"> • <i>As detailed in Annex A – Work Schedule</i>
F. Supplementary / Refresher Training and Technology Transfer as detailed in <i>Section VIII. Training</i>	<ul style="list-style-type: none"> • The Supplier shall conduct quarterly refresher trainings (mechanical and electrical) and shall continuously monitor and train the authorized City Personnel(s) for a period of one (1) year. • A Certificate of Completion or Attendance shall be issued to the participants of the trainings. 	<ul style="list-style-type: none"> • <i>As detailed in Annex A – Work Schedule</i>
G. Monitoring and Maintenance of the Electric Buses as detailed in <i>Section IX. After Sales Support</i>	<ul style="list-style-type: none"> • For a period of one (1) year, with regard to issues concerning the electric buses, the Supplier shall provide free consultation(s) and inputs to be undertaken on site of the depot location to be determined by the City. In addition, the Supplier shall provide free consultation(s) on maintenance and repair problems as well as providing manpower for roadside assistance/maintenance. 	<ul style="list-style-type: none"> • <i>As detailed in Annex A – Work Schedule</i>

All tasks and activities for the completion of the scope of work must be coordinated closely with the concerned departments and offices of the Quezon City Government. Any revisions and improvements to be made during actual implementation must be properly coordinated and approved by the Office of the City Administrator and Local Economic Investment Promotions Office.

V. PLACE OF DELIVERY

The deliverables shall be delivered and undertaken at the determined location by the City for depot in the presence of the Office of the City Administrator and Local Economic Investment Promotions Office.

VI. PROJECT STANDARD AND REQUIREMENTS

In addition to the requirements provided under Republic Act (R.A.) 9184 and its Revised Implementing Rules and Regulations (RIRR), otherwise known as the "Government Procurement Reform Act", the Supplier shall also comply with the following requirements:

1. General Requirements for the Supplier

- a. That the Supplier shall submit technical specifications with brochure, showing among others, the pertinent features of the vehicle;
- b. That the Supplier shall submit a notarized certification for the warranty period of the vehicle, electric motor and battery specified in *Section IX - After Sales Support*.
- c. That the Supplier shall guarantee at least 24 hours response time in case of need whether technical, electrical or mechanical;
- d. That the Supplier shall submit a duly notarized certification of authenticity that the manufacturer has at least fifteen (15) years experience in manufacturing commercial buses and ten (10) years minimum existence in the market of electric bus either overseas or in the Philippines;
- e. The Supplier must be a legitimate distributor of commercial buses for at least ten (10) years in the Philippine market;
- f. The Supplier shall submit a Certificate of Exclusive Dealership/ Distributorship or Manufacturer's Authority to Distribute;
- g. That the Supplier must have at least one (1) service center and/or re-build center within Metro Manila for after-sales service which must be supported with proof;
- h. The Supplier must submit ISO certificate for Quality Management System of the manufacturer of the bus to be offered;
- i. The Supplier must have a PhilGEPS Platinum Registration Certification;
- j. The Supplier shall submit LTO accreditation as motor vehicle dealer and proof of vehicle registration for the first year;

- k. The Supplier shall submit a Single Largest Completed Contract for the last three (3) years similar to the supply of vehicles which must be no less than the 50% of the Approved Budget for the Contract (*see Section XI. Approved Budget of the Contract and Cost Derivation*)
- l. The Supplier shall ensure that supply and delivery of bus includes customized paint job/decals approved by the City;
- m. The Supplier shall perform pre-commissioning and commissioning tests, specified in *Section VII. Pre-Commissioning and Commissioning Tests*, in the presence of the Office of the City Administrator, Local Economic Investment Promotions Office, Traffic and Transport Management Department, City General Services Department, Climate Change and Environmental Sustainability Department and other concerned offices to validate compliance with the TOR and Bid Documents;
- n. The Supplier must rectify all deficiencies encountered during testing and commissioning and subject for re-testing. Expenses and incidental costs for re-testing shall be shouldered by the Supplier with no additional cost to the bid amount.

2. Requirements for Electric Bus Units

List of the following specifications must be present in the Electric Bus:

- a. Vehicle body must be a standard bus size of at least twelve (12) meters with a minimum total passenger capacity of eighty (80), which includes seating capacity of forty (40), standing of forty (40) and with a provision for wheelchair area and wheelchair ramp
- b. Travel range must not be less than 150 km at full charge
- c. Must have battery capacity of not less than 170kWh and IP rating of not less than IP67¹; The Supplier must provide sufficient certification indicating that battery packs have undergone and passed the testing (i.e. damp heat cycle, water immersion)
- d. Must have a minimum step clearance of 340mm;
- e. Electric bus must have a charging port compatible with European Charging Protocol or Combined Charging System 2 (CCS2)
- f. Must be air-conditioned electric bus units
- g. Have designated emergency exit windows and equipped with emergency exit tool composed of emergency hammer, automatic fire extinguisher, etc. The emergency exit windows shall be properly labeled.
- h. Have a television/LCD monitor with universal serial bus (USB) port and speakers that can play videos provided by the City.

¹ Nigel, "IP Ratings", Battery Design, April 19, 2023, <https://www.batterydesign.net/ip-ratings/>

- i. Must have LED board screens inside and outside the electric bus unit that can flash the route of the bus (*see Annex I*) and the bus stops of the route (*see Annex D*) respectively.
- j. The body of the electric bus must be covered with paint job/decals (*see Annex H for the template and specifications*).
- k. Have one (1) fire extinguisher for each bus ideally Dry Chemical (Mono-Ammonium Phosphate) stored pressure type for ABC class of fire
- l. Have a "Priority Seat" sticker on the first four (4) rows of all bus units which are to be seated first by senior citizens, PWDs, and pregnant women (*see Annex E for the template and specifications*). The sticker must be resistant to water, dirt and fading.
- m. Posting of System Map inside the bus units using a sticker (*see Annex D for the template and specifications*). The sticker must be resistant to water, dirt and fading.
- n. Posting of Helpline 122 (*see Annex F for the template and specifications*) which must be resistant to water, dirt and fading.
- o. Posting of Body No. Sticker (*see Annex G for the template and specifications*) and must be resistant to water, dirt and fading.
- p. Posting of LTFRB Sticker (i.e How's my driving?) (*see Annex H for the template and specifications*) and must be resistant to water, dirt and fading.

VII. PRE-COMMISSIONING AND COMMISSIONING TESTS

Upon completion of delivery of the Electric Buses, the Supplier shall perform pre-commissioning and commissioning tests in the presence of Office of the City Administrator, Local Economic Investment Promotions Office, Traffic and Transport Management Department, City General Services Department, Climate Change and Environmental Sustainability Department and other concerned offices.

1. Pre-Commissioning Activities

- The Supplier shall conduct electronics functionality testing of headlights, signal lights, reverse lights, brake lights, horns, wiper, aircon, USB power, CCTV, monitor and LED signages and other electrical equipment included in the vehicle(s).

2. Commissioning Activities

- The Supplier shall conduct vehicle performance testing of brakes, forward and reverse direction and 5 km road testing of the QC Bus Route and other technical and mechanical performance tests for the vehicle(s).

All deficiencies encountered during pre-commissioning and commissioning tests must be rectified and subjected for re-testing. Expenses and incidental costs for re-testing shall be shouldered by the Supplier with no additional cost.

VIII. TRAINING

The Supplier is responsible for transferring the knowledge via capacity building training to the City designated personnel on the proper operation and maintenance of the electric bus units.

1. Scope of the Training

- The Supplier shall conduct necessary knowledge transfer and capacity building training to the designated personnel of the City which includes proper operation and maintenance of the vehicle, and troubleshooting (mechanical and electrical) for the electric bus units.

2. Duration of the Training

- The initial training of the personnel(s) shall commence at least fourteen (14) days upon the delivery of the electric bus units.
- The training shall be held within the Quezon City Hall Compound as may be determined by the Quezon City Government.
- The Supplier shall provide a quarterly refresher training(s) (mechanical and electrical) and shall continuously monitor and train the designated personnel(s) for a period of one (1) year.
- The Supplier shall provide documentation(s) of the training(s) as part of the project milestones such as but not limited to certifications to the personnel(s) of the City involved, training modules, training manuals and others.

IX. AFTER SALES SUPPORT

1. Warranty

- The Supplier shall provide notarized certification for comprehensive warranty for all the Electric Buses. A minimum coverage of one (1) year or 150,000kms whichever comes first for bus unit parts (*see Annex C for Bus Unit Parts Warranty List*), at least four (4) years for the motor or

250,000kms and at least four (4) years for the battery or 250,000kms, or the standard warranty provided by the manufacturer, whichever is higher.

- The supplier shall provide a one time replacement of basic consumable spare parts (*i.e. bearing, coolant, etc.*) deemed replaceable due to normal wear and tear within the first year of 150,000km whichever comes first free of charge to the City.

2. Monitoring and Maintenance

- The Supplier shall provide a Single Point of Contact (SPoC) for after sales issues and concerns;
- The Supplier shall provide a schedule of maintenance three (3) times within the year of the vehicle which must include preventive and corrective maintenance on the bus;
- For a period of one (1) year, issues concerning the electric buses, the Supplier shall provide free consultations and inputs to be undertaken on site of the depot location to be determined by the City. In addition, the Supplier shall provide free consultations on maintenance and repair problems as well as providing manpower for roadside assistance/maintenance.

X. PROJECT DURATION

The delivery of Items A to E as stated in the Scope of Work in this TOR shall be within a period of six (6) months upon issuance of Notice to Proceed while Items F and G shall be provided by the Supplier for one (1) year after the units have been officially turned over to the City Government. (*see Annex A for the Work Schedule*).

XI. APPROVED BUDGET FOR THE CONTRACT AND COST DERIVATION

The sum of One Hundred Fifty One Million Four Hundred Thousand Pesos only (Php 151,400,000.00) is the Approved Budget for the Contract for the above-mentioned project.

It shall cover the following expenditures including all duties, excise and other taxes and revenue charges:

Item Description	Qty	Unit Price	Total
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I. Electric Bus	8		151,400,000.00
TOTAL			151,400,000.00

XII. BASIS OF PAYMENT

The Supplier shall be paid based on the following milestones:

Tranches	Description / Deliverables
15%	Application of Importation and Other Necessary Documents
60%	Supply, Delivery and Registration of Eight (8) Electric Buses with OR/CR
20%	Pre-Commissioning and Commissioning Tests of Electric Buses
	Initial Training and Technology Transfer
	Turn-over of relevant documents to the City Government (<i>see Annex B</i>)
5%	Supplementary/Refresher Training and Technology Transfer
	Maintenance of Electric Buses for a period of one (1) year
100%	

XIII. PENALTIES FOR BREACH OF CONTRACT

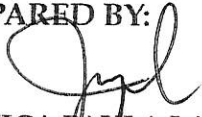
Failure to deliver the services and shall subject the Supplier to penalties and/or liquidated damages pursuant to RA 9184 AN ACT PROVIDING FOR THE MODERNIZATION, STANDARDIZATION AND REGULATION OF THE PROCUREMENT ACTIVITIES OF THE GOVERNMENT AND FOR OTHER PURPOSES and its revised Implementing Rules and Regulations.

XIV. CANCELLATION OR TERMINATION OF CONTRACT

Should there be any dispute, controversy or difference between the parties arising out of this TOR, the parties herein shall exert efforts to amicably settle such dispute or difference. However, if any dispute, controversy or difference cannot be resolved by them amicably to the mutual satisfaction of the parties, then the matter may be submitted for arbitration in accordance with existing laws, without prejudice for the aggrieved party to seek redress before a court of competent jurisdiction.

The guidelines contained in RA 9184 and its revised IRR shall be followed in the termination of any service contract. In the event the City terminated the Contract due to default insolvency, or for cause, it may enter into negotiated procurement pursuant to section 53(d) of RA 9184 and its IRR.

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ANNEX A – Work Schedule

Work Schedule							
Particulars	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7-18
A. Application for importation and other necessary documents							
B. Supply, Delivery and Registration of eight (8) Electric Buses							
C. Pre-Commissioning and Commissioning Tests of Electric Buses							
D. Initial Training and Technology Transfer							
E. Turn-over of relevant documents to the City Government							
F. Supplementary / Refresher Training and Technology Transfer							
G. Monitoring and Maintenance of the Electric Buses							

ANNEX B – Project Handover Documents

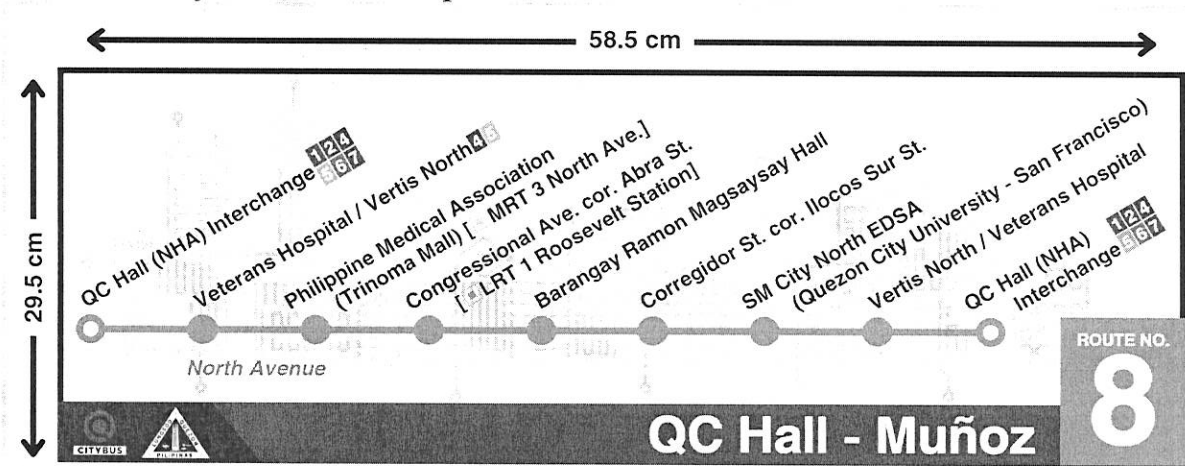
Before the commencement of operations of the Electric Bus, the Supplier must submit four (4) sets of printed documentation and three (3) sets in electronic format contained in three (3) USB thumb-drives in order to effect project acceptance and handover:

1. Electric Bus Technical Specifications Brochure
2. Completed Commissioning Forms (signed by Supplier and End-user)
3. Schedule of Maintenance for a period of one (1) year for the Electric Bus
4. Associated Factory Test Reports of the Electric Bus
5. Warranty Certificates and List of Full Warranty Coverage
6. List of Consumables included on their Maintenance Coverage
7. Training Reports (i.e. Accomplishment Reports, Training Modules, Manuals, Certificates, etc.)

ANNEX C - Bus Unit Parts Warranty List

1. Electric air compressor
2. Air bag
3. Aircon compressor assy
4. Aircon compressor assy
5. Balljoint, draglink
6. Balljoint, tie-rod
7. Brake chamber
8. Condenser fan assy, aircon
9. Controllers
10. Cooling radiator electric fan
11. Cooling water pump
12. Crossjoint, propeller
13. Differential carrier assy
14. Door pump assy
15. Electric steering pump
16. Evaporator blower assy, Aircon
17. Four-way valve
18. Four-way valve
19. Front and Rear Axle
20. Head lights
21. Hub oil seal, front
22. Hub oil seal, rear
23. Inner wheel bearing
24. Instrument panel
25. King pin
26. Maxi brake handle valve
27. Oil seal, axle shaft
28. Outer wheel bearing
29. Propeller shaft
30. Quick release valve
31. Radiator assy
32. Rear View Mirror

ANNEX D - System / Route Map*

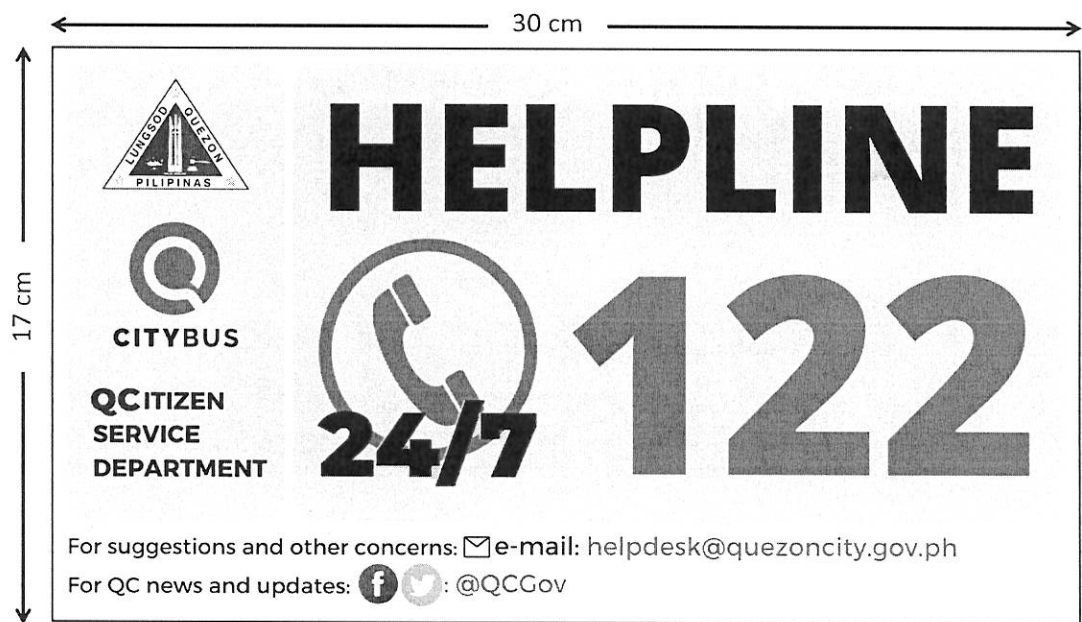


**subject to change by the Quezon City Government*

ANNEX E - Priority Seat Sticker

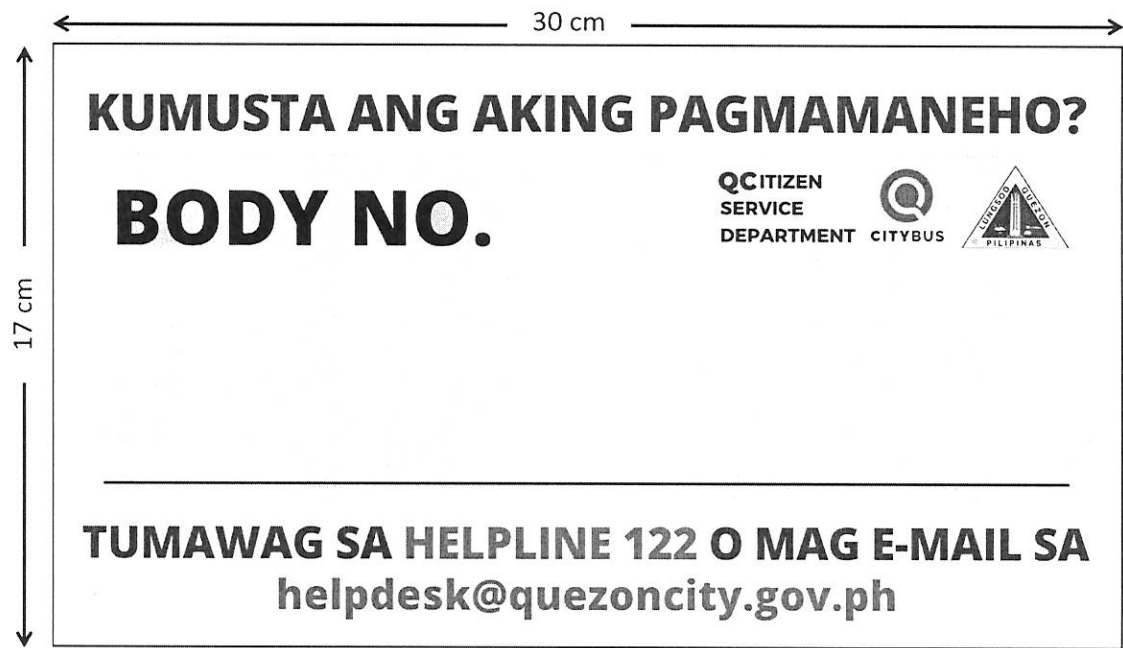


ANNEX F- Helpline 122 Sticker*



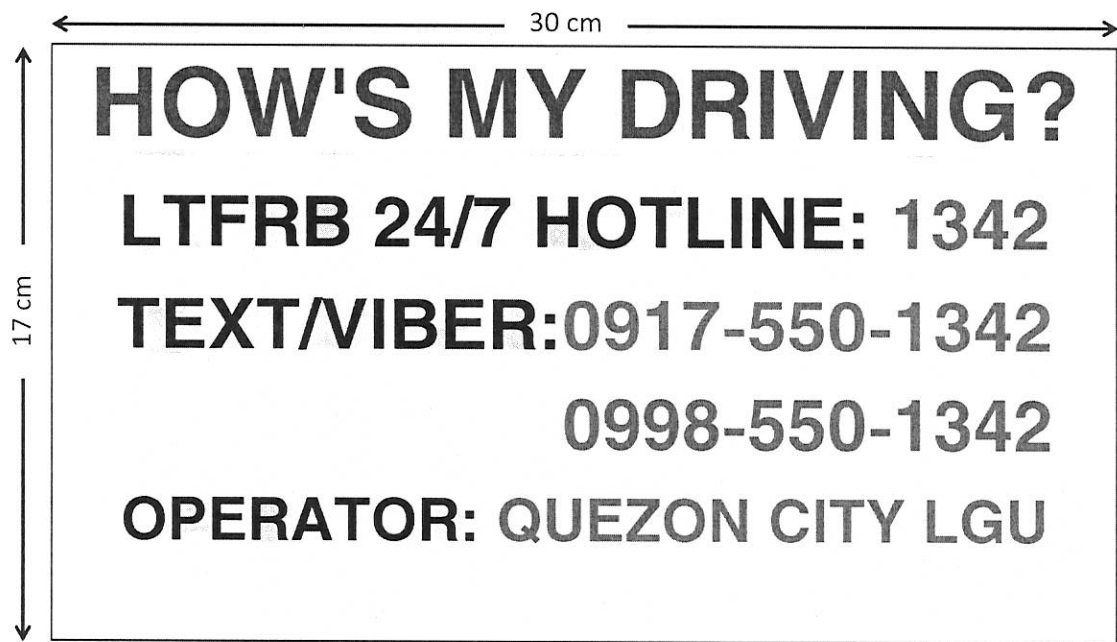
**subject to change by the Quezon City Government*

ANNEX G - Body No. Sticker*



**subject to change by the Quezon City Government*

ANNEX H - LTFRB "How's My Driving?" Sticker*



**subject to change by the Quezon City Government*

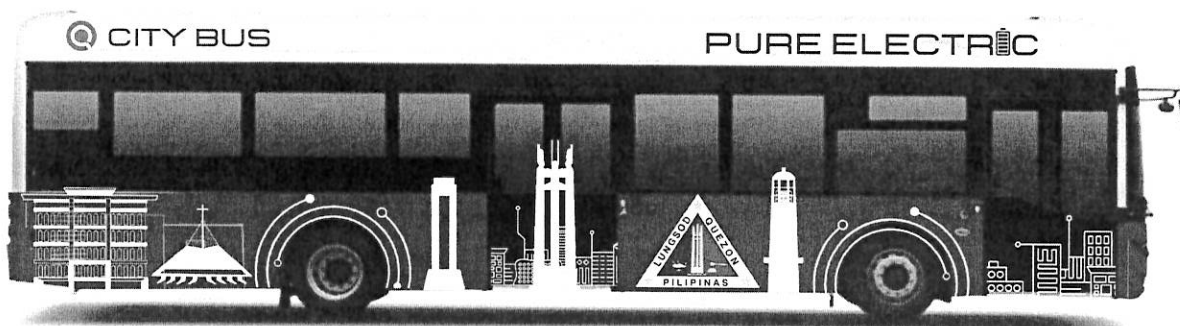
ANNEX I - Bus Wrap **subject to change by the Quezon City Government*



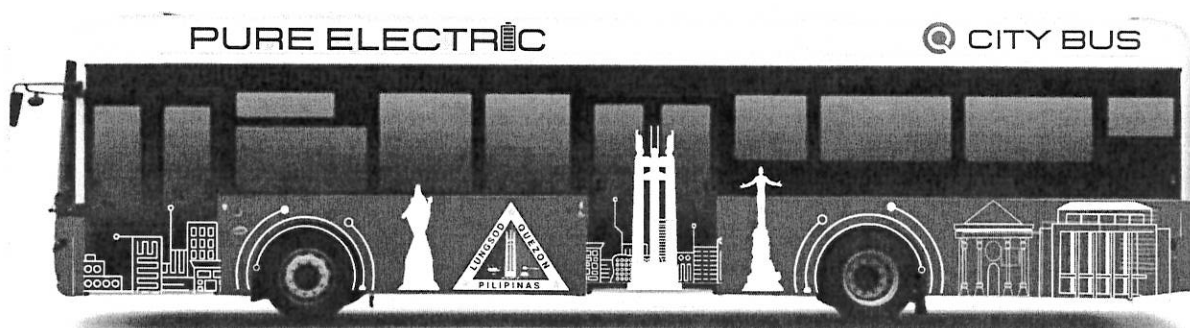
Front Part



Rear Part



Right Part



Left Part

ANNEX J - Front LED Sign Board **subject to change by the Quezon City Government*

