

METRO MASS TRANSIT LTD.

**MINISTRY OF
TRANSPORTATION**

**BELGIUM STATE TO STATE
LOAN**

FOR 55 VDL DAF BUSES

MAY 2019

BELGIUM STATE TO STATE LOAN

QUESTIONNAIRE

Year : 2019

Annexes : FINANCIAL ANALYSIS

General information

INFORMATION ON THE APPLICANT

Applicant:

- Metro Mass Transit Ltd

The Public Institution guarantor, the Ministry of the involved State or third party which is covered by the guarantee of its government:

- Ministry of Transport
- Ministry of Finance

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CONTEXT

NATIONAL CONTEXT

Succinctly describe the political, economic, social and cultural context of the country and region involved and detail the orientations and the objectives which present an interest for the project

The Ghanaian environment is analysed in this section to provide insight into the political and macroeconomic conditions under which the project will be operating.

Ghana, the closest landmark to the centre of the world, is located on the West Coast of Africa, about 750 km north of the equator on the Gulf of Guinea, between the latitudes of 4-11.50 north and longitude 3.110 west and 1.1100 east. Ghana is bounded on the north by Burkina Faso, on the west by La Cote D'Ivoire, on the east by Togo and on the south by the Gulf of Guinea.

Political

Ghana is an independent republic with a democratic government. There are sixteen regions in Ghana and the capital city is Accra. Other major towns are Kumasi and Tamale including the port cities of Cape Coast, Takoradi and Tema, the industrial city, which is adjunct to Accra.

Ghana was created as a parliamentary democracy at independence in 1957, followed by alternating military and civilian governments. In January 1993, military rule gave way to the Fourth Republic after presidential and parliamentary elections in late 1992. Ghana continues to be a politically peaceful country, with individual liberties guaranteed under a multiparty democracy.

Governance

Ghana operates a three arm governance system composed of the Executive headed by the President; a unicameral Parliamentary system with 275 members headed by the Speaker, and the Judiciary headed by the Chief Justice. The members of parliament are elected by direct, popular vote to serve four-year terms just as the Executive while the Chief Justice is appointed by the president on the advice of the Judicial Council, and in consultation with the Council of State to serve a work-life term.

Administration

Administratively the country is divided into 16 regions namely Ashanti, Bono, Central, Eastern, Greater Accra, Northern, Upper East, Upper West, Volta, Western, Western North, Ahafo, Oti, Bono East, Savannah and North East. The Greater Accra region is host to the central administration of the Government. It is the industrial hub of the country and very densely populated. Ghana operates an effective decentralised system of governance that allows the devolution of power from the central government to regions and to Metropolitan, Municipal and District Assemblies (MMDAs). There are currently 260 MMDAs which together have 58 town or area councils, 108 zonal councils, and 626 area councils and 16,000 unit committees. The Unit committees are the lowest stage in the governance ladder.

Legal Systems

Ghana's legal system is based on English common law and customary law. It has the Lower Courts, High Courts, Appeal Courts and a Supreme Court at the apex of the judiciary. In an attempt to speed up commercial arbitration, a Commercial court and a Fast-track High court have been established to provide settlement services to the investors in the private sector.

Every region is equipped with basic court infrastructure however (new regions are being provided with); the Greater Accra region in addition hosts the Appeal Court, Fast-track High Court and the Supreme Court. The legal system in Ghana is robust with an active pool of talented legal brains rendering services to a variety of local and international clients. The judiciary is truly independent guaranteeing the rights of individuals and groups, as well as providing an effective and transparent platform for businesses and other corporate entities to freely undertake legitimate business engagements.

International Relations

A number of International Organizations operate and participate in the economy of Ghana. They include ACP, AFDB, AU, ECOWAS, FAO, G-24, G-77, IAEA, IBRD, ICAO, ICC, ICCT, ICRM, IDA, IFAD, IFC, IFRC, ILO, IMF, IMO, IMSO, Interpol, IOC, IOM, IPU, ISO, ITSO, ITU, ITUC, MIGA, MINURCAT, MINURSO, MONUC, NAM, OAS (observer), OIF (associate member), OPCW, UN, UNAMID, UNCTAD, UNESCO, UNHCR, UNIDO, UNIFIL, UNITAR, UNMIL, UNOCI, UNOMIG, UNWTO, UPU, WCL, WCO, WFTU, WHO, WIPO, WMO and WTO. Ghana is an active player in the global political and economic space, ensuring that it remains committed to maintaining and upholding international, bilateral and multilateral agreements.

Population Size

Ghana is one of the most populous countries in West Africa ranking next to Nigeria. Population data released in 2010 revealed that total population of Ghanaians domiciled in the country was about 25 million (24.65m) and projected to reach 30 million by 2020. Average population growth per year was also estimated at 2.5% for the country, which is less than that of West Africa which is estimated at about 2.9%.

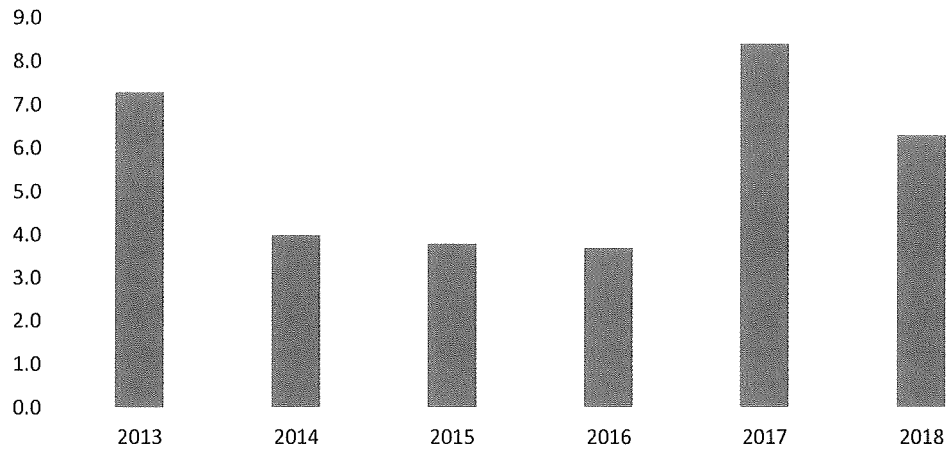
The census also measured the population density to be 103 persons per square Kilometres. By 2006, the population of Ghana was estimated at 22,409,572 at a growth rate of 2.5%. The population density for the same year was estimated at 252 per square mile while infant mortality and life expectancy were 55 and 58.9 per 1000 respectively. A large proportion of the population is youthful and in the economically active group bringing in its wake significant opportunities for industry and commerce including transport sector operations.

Socio-Economic Development

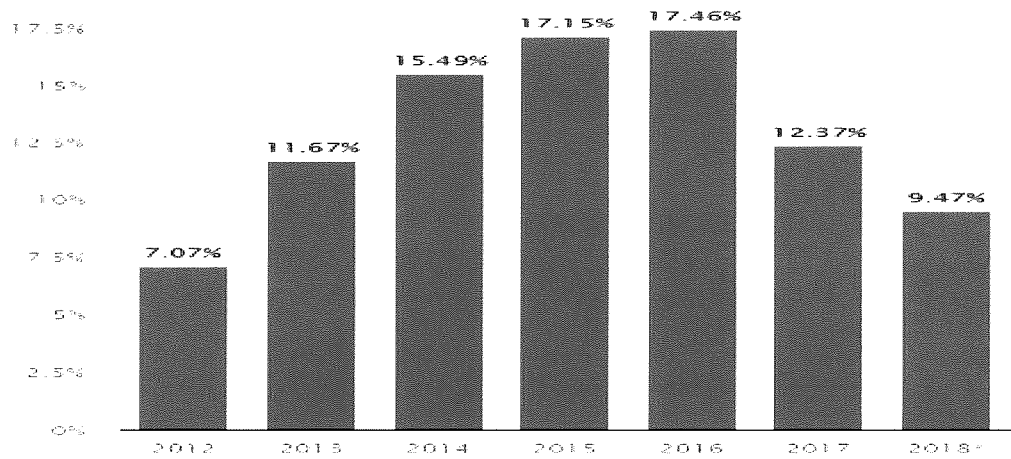
Ghana's existing infrastructural base is moderately developed particularly in the transport and telecommunications sector. There are three major teaching hospitals, each located in Accra, Tamale and Kumasi and about 36 significant regional and urban hospitals largely owned by the government. There are also Nine (9) state owned universities and Ten (10) technical universities. Ghana embarked on bold educational reforms in 1987 that saw a significant reduction in the number of schooling year prior to entering University. An average of 80,000 students graduates from tertiary institutions each year creating a pool of educated young Ghanaians who are contributing to national development efforts.

In 2018, real GDP growth for Ghana was 6.3 %. Though Ghana's real GDP growth fluctuated substantially in recent years, it tended to increase through 1999 - 2018 period ending at 6.3 % in 2018. The last six year trend is below:

ANNUAL GDP

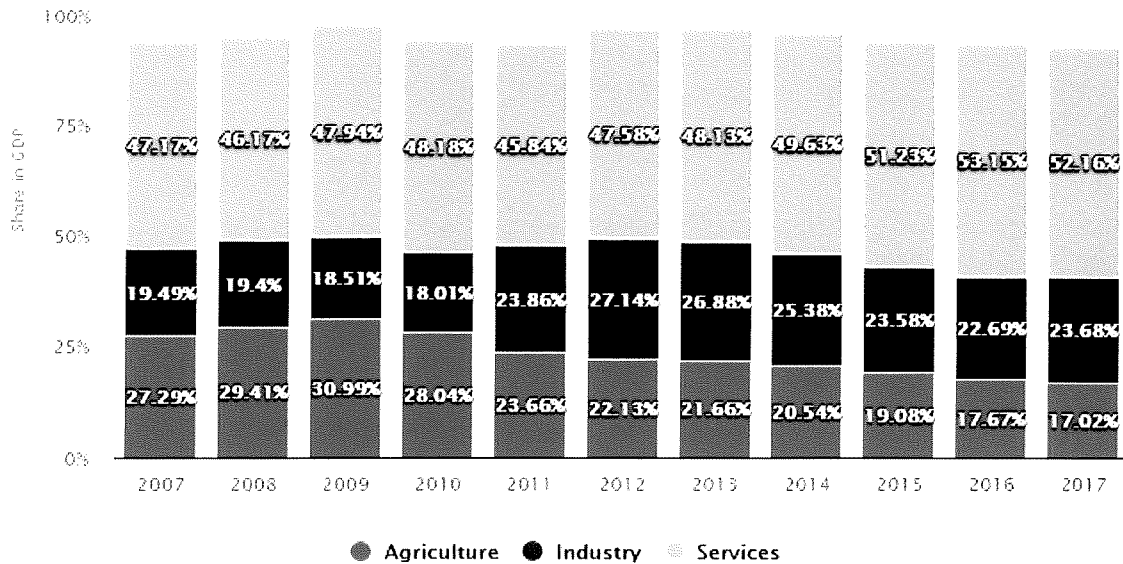


Generally, annual average inflation continues to experience a downward trend in the nation's economy since peaking at 17.46 in 2016. It is therefore expected to record a much lower annual average inflation of about 8.0% by the end of 2019.



Economic Sector Analysis

The table below shows the contribution to GDP from the three sectors of the economy namely, Agriculture, Industry and Service sector.



SECTORAL CONTEXT

Describe the situation and the policy of the sector to which the project belongs, with a special attention to the region in which the project is located. At the same time, give a general idea of other projects that have been carried out or planned in the same sector during the last five years. How have these projects been financed ?

Ghana recognised an efficient transport system as an axel wheel on which the economic activities of any nation revolve and therefore there are four major ministries that seek to improve Ghana's transport sector: Ministry of Transport, Ministry of Aviation, Ministry of Railway Development and Ministry of Road and Highways.

National Transport Policy

All the above ministries are pursuing a National Transport Policy that has the following ten (10) goals:

1. Transport for all
2. Ghana as a transport hub
3. Sustainable transport
4. Improved public and private investment in transport
5. Integrated and harmonized transport planning
6. Legal mandate for implementation of transport policy and plans
7. Enforcement of rules, regulations and standards
8. Research and development

9. Develop human resource capacity
10. Application of new technologies in transport

Modes of Transportation in Ghana

Ghana's transport system consists (i) a total of about 42,000 kms road network of all classes (13,383 kms trunk roads; 25,000 kms of feeder roads; 2,909 kms of urban roads and 820kms of town roads); (ii) a railways network of about 950 kms; (iii) air transport services consisting of one international and four domestic airports; (iv) a maritime service with two major seaports; and (v) a 415kms inland water transport facility (as at 2000) (Inter Regional Road reference .com)

Government continuously aim at integrating the above five modes of transportation for efficient and effective transportation system in the country through series of programmes including Transport Sector Performance Review Seminars which are being held by the Ministry of transport for the purpose of building an integrated public transport system where all the modes of transportation (Road, Railway, Water and Aviation) are integrated. Government is committed to developing each of the modes to an acceptable level for the benefit of the citizenry. Government is cognisant of the role of an efficient transport system in economic transformation, and is determined to utilise all viable options to build a resilient transport system in this regard.

Description of Ghana's Road-Subsector

Road transport plays a very significant role in the economy of Ghana. It is estimated that road transport accounts for 94.0% of freight ton-miles and 97.0% of passenger miles in the country.

In Ghana, passenger transport can be categorized into four main segments namely: urban, express services, rural-urban and rural.

Urban transport activity basically involves commuting to work, school and to other locations of social and economic interest. All urban transportation in Ghana is by road through public means such as taxis, minibuses and private bus services. The nature of urban transportation basically involves the mass movement of people from the outskirts to the city centre and back.

Inter-city travel is defined as Express Service, and it involves mainly road transport. Rail and air travel complement the usage of vehicles such as large and middle-size buses, small buses, private cars, albeit insignificantly.

The rural -urban passenger traffic usually flows between rural and urban locations. Traffic volumes fluctuate significantly, reaching its peak at weekends when significant urban residents travel to the rural areas for funerals and other social events. This pattern is similarly observed during major holidays (Christmas, Easter etc) and is directed in specific directions at various times of the year in accordance with the festivals of various ethnic groupings.

The rural travel activity is very scanty. The means of transportation are usually very decrepit taxis and mini-buses. Traffic is very thin, but pick up significantly during market days.

Altogether, it is estimated that buses are the main mode of transport, accounting for 60.0% of passenger movement while taxis account for about 14.5%. Private cars account for the rest. Buses have proven very useful in handling the transportation needs of a population in a country where distances between to and from regions are

large. Business people, mostly women have found buses very useful ways of commuting and conducting business especially to the national capital, Accra and other commercial cities like Kumasi and Tema. For business people from the North of the country, buses remain the most reliable and convenient means of transport in furtherance of their businesses.

Road Transport Regulatory Framework & Infrastructure Projects

There are two major institutions (National Road Safety Committee and the Driver and Vehicle Licensing Authority (DVLA) that have been restructured to promote higher standards of vehicle inspection and driver testing as means of enhancing the safety of road users.

The government is vigorously pursuing New Regulatory Framework for Urban Passenger Transport in Ghanaian Cities. The project commenced in 2007 and the first phase comprising Greater Accra and Kumasi was expected to have been completed in 2012 but is still on going. Thereafter, it will be rolled-out to other urban areas in Ghana; others may be embodied in new transport law. It combines infrastructure and institutional measures to help solve the urban transportation problems. One of the key components of the national transport policy relates to road safety. Statistics from the National Road Safety Commission reveals that for the months of January and February in 2019, there were 2,126 crashes involving 3,428 vehicles. These crashes claimed the lives of 411 people whilst 2,440 sustained various degrees of injuries. Among the major causes of road accidents include rickety and malfunctioning vehicles.

One of the infrastructure measures is the implementation of Bus Rapid Transit (BRT) system in selected cities. In this project, special bus lanes are being constructed for transport operators to run services using only buses from and to specific terminals and at specified time interval for a uniform fare.

Two of the National Operators for the Bus Rapid Transit (BRT) are Ayalolo Bus Company and Metro Mass Transit Ltd. The BRT is expected to reduce congestion in the Central Business Districts of major cities, and to reduce commuter time to work. On the average, workers lose between 2-3 hours to traffic congestion. The implications on productivity are apparent.

Metro Mass Transit Ltd

The Ministry of Transport (MOT) recognizes the MMT as one of its key agencies for implementing the National Transport Plan (NTP) Goals mentioned earlier in this paper.

The establishment of Metro Mass Transit Limited (MMTL) is to share a common goal of ensuring that public transport is to all and that the pedestrian and traffic environments are designed and managed to enable people reach and use public transport safely and with confidence.

In fulfilment of this common goal, Metro Mass Transit Ltd took delivery of approximately 1,140 buses as at the end of 2012 and extended its three main Services (intracity service, inter-urban service, and intercity service) to all the regions and

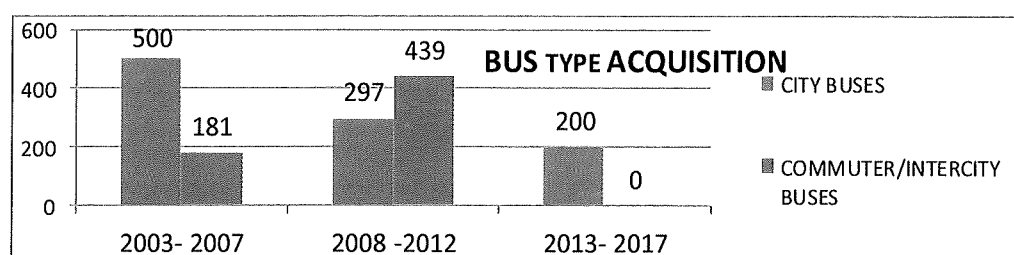
greater part of the 260 districts/municipalities of Ghana by operating an average of 727 buses daily on 390 routes and providing direct employment for over 4,000 people. The MMTL has particularly been effective in servicing difficult-to-reach areas, ensuring that people in these areas have reliable and safe transport options for a variety of reasons including agriculture and petty trading. The Company has thus been at the forefront of using a reliable transport network to boost commerce and productivity across Ghana.

As part of plans to expand on coverage and outreach, the company developed a 5-year strategic plan in 2013 for the period 2014-2018 that aimed at ensuring that the above level of operations were sustained through continuous improvement in operations, internal processes and timely fleet replacement.

It was expected that by the end of 2018, all the 1,140 buses would have been replaced for the next period of operations and that additional 60 routes would be added within the period. However, the company's inability to acquire adequate new buses for the replacement has led to significant decline in the operations of the company, to the extent that daily operating buses has reduced from the 2012 figure of 727 to 255 as at end of 2018.

YEAR	2012	2013	2014	2015	2016	2017	2018
OPERATED BUSES	727	709	621	490	520	479	255
PASSENGER CARRIED	37,984,240	32,221,655	26,052,474	16,715,920	14,654,906	11,921,003	8,629,678
% OF COST RECOVERY FROM REVENUE	105%	109%	102%	101%	90%	85%	83%
NET INCOME (GHC)	5,000,049	9,027,035	2,783,463	1,399,785	(14,931,720)	(23,997,168)	(24,750,786)
NET ASSETS (GHC)	55,433,675	64,460,710	67,244,172	69,580,012	54,648,293	30,651,124	5,900,339

Another challenge the company is having is the fact that instead of having more commuter buses for intercity and rural urban services, the company rather have more city buses because in the last five years the company had only city buses. See table below) without any new commuter buses.



It is for the purpose of addressing the above challenges that Government of Ghana is providing guarantee for the acquisition of a number of commuter buses including 55 VDL commuter buses for MMT.

GENERAL INFORMATION ON THE PROJECT

Designation of the project

Acquisition of 55 VDL Commuter buses and spare parts for Metro Mass Transit Ltd. A grant for the provision of Technical Assistance for 3% of the contract amount will be requested directly by VDL Bus Roeselare from the Belgium Government.

The export transaction consists of:

- Supply of goods (55 VDL Commuter Buses and spare parts to MMT)

General Description of the Projected Activities

- a. VDL Bus Roeselare are offering 55 VDL DAF commuter buses for intercity operations at total cost of €11,594,203 .
- b. The €11,594,203 is made up of bus cost of €10,917,500 and spare parts cost of €676,703 . (A grant for technical assistance will be asked by VDL Bus Roeselare)
- c. The buses will be delivered to MMT to help in the fleet replacement programme of the company.

How are the projected activities integrated into the economic policy and the development of the country?

The project (acquisition of 55 buses) is to help in the sustainability plan of Metro Mass Transit Ltd. The continuous existence of the company has the following strategic benefits to the development of Ghana:

- ❖ Help make transportation services relatively affordable;
- ❖ Help make transportation services accessible to all communities;
- ❖ Help reduce congestion, emission and national fuel consumption
- ❖ Encourage environmental friendly practices
- ❖ Implement free bus ride for school children at the basic level and half fares for the aged.
- ❖ Make bus services accessible to persons living with disability
- ❖ And to contribute to overall economic growth through the promotion of trade and agriculture.

Location of the region where the activities will be developed.

The 55 buses will be deployed on 20 out of the 328 routes of MMT. However, the 20 routes cut across all the 16 regions of Ghana. Each of 16 branches of MMT will received at least 2 of the buses to be used for intercity and inter-urban services. The selected routes are

1	ACCRA	BOLGA
2	ACCRA	TAMALE
3	ACCRA	KUMASI
4	TAKORADI	KUMASI
5	CAPE COAST	KUMASI
6	KUMASI	TAMALE
7	KUMASI	WA
8	KUMASI	BOLGA
9	SUNYANI	BOLGA
10	HO	KUMASI
11	ACCRA	OBUASI
12	SUNYANI	TAMALE
13	SWEDRU	KUMASI
14	SUNYANI	WA
15	SUNYANI	HAMILE
16	ACCRA	ABOATOASE
17	ACCRA	WURWURA
18	ACCRA	NKONYA
19	ACCRA	KADJEBI
20	ACCRA	NKWANTA

Organisation(s) which will contribute to the achievement of these activities: give the name as well as a short description of the objective and the activities of this/these organisation(s).

a. Metro Mass Transit Ltd

Vision

To be the most preferred Transport Company in the sub region

Mission

To provide reliable, safe, efficient and affordable mass transport services by road in the sub region

Object of Incorporation

- ❖ To carry on the business of Mass Transportation in Ghana in all its aspects and other businesses incidental thereto;
- ❖ To undertake bussing on contract basis; and
- ❖ To undertake school bussing services
- ❖ To undertake cargo and parcel services

b. Ministry of Transport

Vision

To create an integrated, modally complimentary, cost effective, safe, secure, sustainable and seamless transportation system responsive to the needs of society, supporting growth and poverty reduction and capable of establishing Ghana as a transportation hub of West Africa.

Mission

To provide leadership and guidance for the development of the transport sector through effective policy formulation, market regulation, asset management, and service provision

Policy Objectives

- i. Increase capacity and efficiency in port operations
- ii. Enhance the contribution of inland waterways for safe and efficient transportation of goods and people
- iii. Ensure effective and efficient flow of goods and, services and related information to meet customer requirement
- iv. Improve efficiency and effectiveness of road transport infrastructure and services
- v. Ensure safety and security for all categories of road users
- vi. Ensure effective and efficient flow of goods, services, and related information

c. VDL Bus Roeselare

Mission

In a globalized world it is our goal to enhance people's mobility. We achieve our goal by providing a full range of buses and coaches that serve passengers' needs, whether they travel cross country, in between metropolises, or within the city. Our corporate talents are focussed on the development and manufacturing of products that put quality and efficiency, customers' demands and passengers wishes first. Belgium and The Netherlands remain our home base, because the foundation of our quality and experience lies here. The market for our sales force is the global market. We strive to be among the top three bus and coach manufacturers.

Vision

We are your partner. We seek long lasting relationships with our customers and their passengers, with our suppliers and other business partners, with our staff and last but not least with society as a whole.

ASSUMPTIONS, RISKS AND PRELIMINARY CONDITIONS

Are there any conditions which must be fulfilled before the project starts?

There are currently no conditions precedent to the commencement of the project

Which events and decisions located outside the boundaries of the project can have an impact on the development of the activities as well as on the achievement of the objectives ?

- a. The general operational challenges including continuous increase in fuel price will have negative impact on the project.
- b. The possibility of acquiring other buses will complement the success of this project as the over-all fleet situation of MMT improves to enhance its services to the public
- c. Development of terminals will complement the success of the project

- d. Improvement in internal structures of MMT in fleet maintenance will enhance the success of the project.

Describe the specific risks which, even though not being under the responsibility of the project, fall nevertheless under its zone of influence and which must therefore be taken into account.

- a. Drivers and staff attitude towards operating the buses
 - b. Road accidents
 - c. Delay in the delivery of spare parts
- These are anticipated and largely forecasted from the previous experiences. Over the years, mitigation strategies have been developed for these risks to ensure that they do not derail the corporate plans. For instance, driver training with emphasis on safety and customer care have been prioritised. These are yielding results and have contributed to the current status of being one of the most preferred transport service provider in Ghana.

TARGET GROUP FOR THE ACTIVITIES

Give an overall description of the local groups of people targeted by the activities;

Metro Mass Transit has the mission of providing efficient and affordable transport services to Ghanaians in general and the less privilege in particular by charging fares that are 10-20% less than commercial fares. It is also noteworthy that MMT is the main provider of transport services in much of rural Ghana, where other commercial operators are unwilling to operate.

Social situation of the targeted group;

- a. Low income level people
- b. The aged
- c. School children
- d. Rural business operatives including farmers and petty traders.

How will the local population be affected by the activities ?

- a. The local people will have access to affordable transport
- b. People's mobility to work, market, school and other purpose will improve.
- c. In some communities in the North, MMT is the only means of transport
- d. Timely movement of goods will improve livelihood of people

OBJECTIVES OF THE ACTIVITIES

Describe the concept of the project, the proposed solutions and the method to be applied. What are the intermediate and final results expected? Specify the quantitative and qualitative indicators used for the evaluation of the intermediate and final results.

a. Concept of the Project

It is a fleet replacement project intended to assist in resuscitating the operations of Ghana’s leading public transport service provider- Metro mass Transit Ltd. It involves an arrangement with VDL group for the supply of 55 commuter buses, spare parts and technical assistance for MMT.

b. Proposed Solution

The project will provide the following solution to the operations of MMT

- MMT has prepared a five year strategic plan that aims at ensuring continuous provision mass transportation service for socio economic development of Ghana
- The plan is anchored on the ability to acquire 100 buses annually.

FLEET ANALYSIS						
NO.		YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
		2019	2020	2021	2022	2023
1	OPENING FLEET	541	641	691	741	741
2	ADDITIONS (YEARLY)	100	100	100	100	100
3	DECOMMISSIONING		50	50	100	100
4	NET FLEET	641	691	741	741	741

- The acquisition of the 55 VDL buses will constitute 55% of the required buses needed in a year (2020) to ensure that the 691 buses needed in 2020 will be ascertained.

c. Method Applied

- The 55 buses will be deployed on 20 intercity and inter-urban routes across the 16 regions of Ghana.
- The selection of the VDL buses is based on the fact that MMT has been using the VDL buses since 2007 for intercity and inter-urban operations.
- A sole sourcing approach will be used for the acquisition of the 55 buses due to MMT’s acceptability of the VDL brand and the urgent need for the buses.

d. Expected Result

The deployment of the buses is expected to generate the following results:

Statement of Profit or Loss & Other Comprehensive Income

Year		2019	2020	2021	2022	2023	2024	2025
Currency	Assumptions	GHC	GHC	GHC	GHC	GHC	GHC	GHC
Revenue	1	-	35,489,184	35,302,399	35,008,212	34,596,351	31,785,397	30,990,762
Cost of Revenue	3	-	(28,620,807)	(28,835,715)	(29,387,889)	(29,684,293)	(28,777,573)	(28,604,626)
Gross Profit		-	6,868,377	6,466,684	5,620,323	4,912,057	3,007,825	2,386,136
Administrative Expenses	4	-	(1,774,459)	(1,765,120)	(1,750,411)	(1,729,818)	(1,589,270)	(1,549,538)
Operating Profit		-	5,093,917	4,701,564	3,869,913	3,182,240	1,418,555	836,598
Finance Cost	5	-	(857,936)	(1,099,734)	(910,100)	(839,559)	(804,802)	(750,128)
Profit Before Tax		-	4,235,981	3,601,830	2,959,813	2,342,681	613,753	86,470
Corporate Tax (35%)		-	-	(900,458)	(739,953)	(585,670)	(153,438)	
Profit After Tax		-	4,235,981	2,701,373	2,219,860	1,757,011	460,315	86,470
Other Income								
Total Comprehensive Income		-	4,235,981	2,701,373	2,219,860	1,757,011	460,315	86,470

- Daily passengers of 3,268 will be carried from the 55 buses
- Annual revenue of GHC35million is expected in the first three years.
- Net profit will be GHC4.2million in year 1, 2.7million in year 2 and 2.2million in year 3.

e. Quantitative Indicators

One key quantitative indicator for success used by MMT is fuel cost to revenue ratio. Currently, the company is not doing well because its current aged buses are using average of 45% of revenue on fuel. VDL buses use average of 35% of revenue for fuel in their early years of operation. This makes a compelling case for the acquisition of the new VDL buses.

The revenue and cost structure below indicate that the project will be successful quantitatively since fuel cost ratio is 32% in the first two years.

COST OF REVENUE							
Year	2019	2020		2021		2022	
Currency	GHC	GHC	GHC	GHC	GHC	GHC	GHC
TOTAL REVENUE		35,489,184	100%	35,302,399	100%	35,008,212	100%
Cost of Fuel Consumed	-	11,236,900	31.7%	11,444,382	32%	11,959,548	34%
Maintenance & Servicing	-	1,519,741	4.3%	1,511,743	4%	1,873,931	5%
Tyre & Tube Replacement	-	995,138	2.8%	1,037,038	3%	1,077,368	3%
Batteries Replacement	-	87,075	0.2%	86,616	0%	85,894	0%
Loading & Toll Expenses	-	634,752	1.8%	631,411	2%	626,149	2%
Bus Washing Expenses	-	451,440	1.3%	449,064	1%	445,322	1%
Printing of Tickets & Tags	-	491,797	1.4%	475,231	1%	457,806	1%
Comprehensive Insurance	-	1,662,375	4.7%	1,662,375	5%	1,329,900	4%
Drivers' Salaries	-	2,193,231	6.2%	2,193,231	6%	2,193,231	6%
Mechanics' Salaries	-	326,700	0.9%	326,700	1%	326,700	1%
Financing Arrangement Fee	-	709,784	2.0%	706,048	2%	700,164	2%
Depreciation Expense	-	8,311,875	23.4%	8,311,875	24%	8,311,875	24%
	-	28,620,807	80.6%	28,835,715	82%	29,387,889	84%

f. Qualitative Indicators

The key qualitative indicator is the durability, robustness and passenger's acceptability of the VDL buses. In the past 10 years MMT has been deploying VDL buses relative to other brands being used by the MMT. We do expect the same save performance in the 55 buses.

The project is expected to help MMT achieve its seven strategic goals listed in the balance score card matrix below:

NO.	PERSPECTIVE	WEIGHT	7 STRATEGIC GOALS
1	Financial Perspective	30%	<ul style="list-style-type: none"> • Increase Profitability and Attain Financial Sustainability
2	Customer Perspective	30%	<ul style="list-style-type: none"> • Improve the Safety of Passengers and Staff
			<ul style="list-style-type: none"> • Improve Customer Service
			<ul style="list-style-type: none"> • Expand Access to Our Service
3	Internal Business Process Perspective	25%	<ul style="list-style-type: none"> • Adopt Environmentally and Socially Friendly Practices
			<ul style="list-style-type: none"> • Initiate ISO Certification
4	People Perspective	15%	<ul style="list-style-type: none"> • Establish a Great Workplace

In which manner will the activities improve the situation of the targeted group over the long term ?

- a. The socio-economic status of commuters will improve as their mobility improves through this project.
- b. School children will report to school on time as they have access to means of transport and this will enhance their performances
- c. The sustainability of MMT will ensure continuous employment of staff and this will enhance their well being

How do the activities fit into the social, cultural and economic development ?

- a. Ghana's transport policy of making transport accessible to all will be consolidated through this project
- b. As mobility improves productivity improves and eventually the national development agenda could be achieved.
- c. Communities could have easy means of transport when organising social programmes, and pursuing livelihood activities. MMT's social intervention programme (affordability, half fares for the aged and free for school children) will be enhanced through this project. The free ride for school children for instance feeds into the national objective of improving access for all children of school going age, and also sits well with Sustainable Development Goal 4 (SDG 4) that aims at ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all.

THE IMPACT OF THE PROJECT ON DEVELOPMENT

How will the project favour the sustainable development? (Sustainable development: improvement of the situation of the targeted population without compromising the chances of development of the future generations).

- a. Mass transportation has been recognised as key strategy for improving urban transport as against increase in individual private vehicles: it reduces national fuel consumption; it reduces traffic congestion; and reduces level of emission, and ultimately reducing the negative effects of climate change that would otherwise affect the livelihood options of current and future generations.
- b. Sustaining the operations of MMT through this project means Ghana will continue to benefit from the above mass transportation.
- c. Accessibility to transport means communities can expand by people moving to outskirts of cities without fear of mobility to central business centres.

What is the technical feasibility of the project? Considering the local situation (capital availability, factors of production, knowledge) is the technology to be used suitable? Which efforts are deployed in terms of transfer of technical knowledge? What kind of training is expected to be given to the managers for the implementation of the project?

- a. Technical evaluation has been done on all the technical specifications of the buses and they fall within MMT bus specifications (copy of report available).
- b. The euro 3 engine to be used by VDL Bus Roeselare is suitable for Ghanaian environment relative to the quality of fuel in Ghana.
- c. The arrangement for this acquisition will involve provision of technical support such that there will be a transfer of technical knowledge in the maintenance of the buses.
- d. Training will involve fleet maintenance.

THE IMPACT OF THE PROJECT ON THE ENVIRONMENT

- Is the project located : **It is across regions and will involve various locations**
 - In an agricultural area
 - In a residential area
 - On an existing site/existing infrastructure (port, airport)
 - In an environmentally sensitive area *
 - In a mixed-use site (specify)
 - On an off-shore site
 - On a site without specific use

* If so, please tick off in the list below:

Environmentally sensitive areas (see list of websites in the explanatory note):

Not Really.

- Exceptional marine environments (coral reefs,...)
- Insular environments
- Exceptional coastal areas (marchlands, mangroves,...)
- Areas threatened by desertification

- Areas subject to erosion
- Protected areas (world heritage sites), national parks
- Areas protected by virtue of an international convention
- Areas of cultural, historical or archaeological interest
- Landscape areas of major interest (greenfield sites)
- Zones with high biodiversity
- Tropical rain forests
- Areas of interest for particularly vulnerable populations (nomads,...)

Which international or local environmental standards does the project meet? Has an environmental permit been awarded by the local authorities?

The buses will be made from euro 3 engines and it is permissible in Ghanaian Environmental laws.

What are the environmental factors surrounding the project?

Level of emissions and it is expected to be within acceptable level

Which are, if any, the environment impact assessments that have been undertaken? Give the references of such assessments and summarize the decisions that have been taken. Is an environmental management plan available or is it planned?

- a. As part of its strategic goals, MMT is initiating ISO certification process and the assessment will look at level of emissions from MMT buses if they are within the range acceptable.
- b. It will also look at physical operating environment at the various terminals and workshops.

What are the positive and negative impacts of the project on the environment?

Impact on the environment will be positive: less fuel consumption, less emissions and thus cleaner air, higher capacity of the buses leading to less use of other more polluting means of transport.

How can the potential risks on environment be controlled? In this respect, which alternative solutions can be considered?

- a. Ensure intensive and timely maintenance of buses to control level of emissions
- b. Ensure the use of high quality oil for servicing
- c. Ensure time disposal of scraps to keep workshops clean
- d. We expect this to be minimal given the determination of management to ensure timely replacements of ageing vehicles.

THE INSTITUTIONAL FEASIBILITY

Which institution (Ministry, State corporation, organism with State guarantee) will be responsible for the implementation of the project in the future?

- a. Metro Mass Transit Ltd
- b. Ministry of Transport
- c. Ministry of Finance

THE FINANCIAL FEASIBILITY

Provide an estimate of the operating and maintenance costs as well as the costs of alternative investments. How will these costs be financed after completion of the project?

Describe the added value of the proposed activities (the expected results at the time the objectives will be achieved).

Describe the efficiency of the proposed activities (are the expected results in line with the resources invested?)

The full financial assessment with all the assumptions is attached/submitted. It shows the cost of running buses, the revenue expected and the net income.

IMPLEMENTATION

- Who organizes the international competitive bidding?
 - **The Ministry of Transport. The tender will be launched after signature of the Belgian State to State Loan.**
 - **A sole source approach will be used for the acquisition of the 55 buses due to MMT's acceptability of the VDL brand and the urgent need for the buses.**

- Is a feasibility study of the project already available?

Yes, see annexe for financials analysis and this is a running business

- Attach to this financial request a copy of the bidding documents.
Not available

- On the basis of the bidding documents, give a budget estimate for following items :

Total amount: **11,594,203 €**
-**This total amount of 11,594,203 € consists of ;**
-**55 buses , CIF Tema**
-**spare parts for an estimated amount of 676,703 €**

- Anticipated financing;

State to State loan requested from the Kingdom of Belgium : 8.000.000 €

Commercial financing :

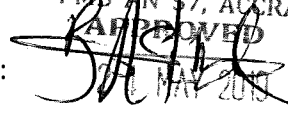
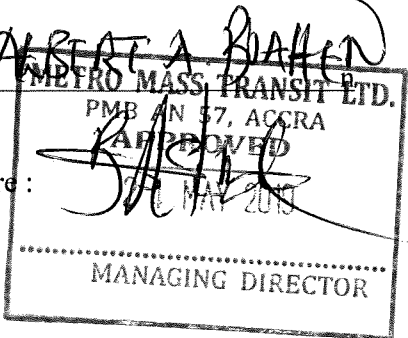
For the remaining 3.594.203 €. Belfius Bank SA/NV as an export credit facility for over 10 years insured by an ECA.

- Indicate the planned schedule of the activities. Enclose a planning showing the expected monthly progress of the works as well as the total duration of the project.

- Planning:

-Signature of the commercial contract and the financial agreement in July 2019.

-First deliveries in December 2019.

Location : ACCRA Name : AREATA BAHEN
Date : 24th MAY 2019 Signature : 


METRO MASS TRANSIT LTD.
PMB AN 57, ACCRA
APPROVED
24 MAY 2019
MANAGING DIRECTOR

Explanatory note: sensitive areas

Sensitive areas are mentioned among others on the websites of the following organisations:

- The United Nations Environment Programme: <http://www.unep-wcmc.org>

This website notably lists:

Protected areas, national parks and natural reserves;

Coral reefs;

Mangroves;

Forests;

The Ramsar convention: <http://www.ramsar.org>

Unesco World Heritage List: <http://www.unesco.org>

And more specifically about:

- Coral reefs: <http://www.reefbase.org>
- Desert areas: <http://www.infoplease.com/ipa/AO778851.html>

ANNEX



METRO MASS TRANSIT LTD

..... moving the nation

FINANCIAL FEASIBILITY FOR 55 VDL BUSES

MAY 2019

1. SUMMARY OF BACKGROUND OF THE PROJECT

- a. VDL Bus Roeselare of Belgium is offering 55 VDL DAF commuter buses for intercity operations at total cost of €11,942,029 to Metro Mass Transit Ltd.
- b. The €11,942,029 is made up;
 - i) bus cost of €10,917,500,
 - ii) spare part cost of €676,703 and
 - iii) Technical Assistance cost of €347,826
- c. The offer comes with:
 - concessional financing amount of €8,000,000 from Belgium Government at zero interest rate for 20 years and a 21 years grace period,
 - Commercial Export credit for €3,594,203 at rate of CIRR+1.25% for 10 years with 2 years grace period,
 - Belgium Government grant of €347,826 for the technical assistance.
- d. There will be a moratorium period (grace period) of 21 years for the Government concessional loan and 2 year grace period for the Export credit.
- e. This paper reports on the seven year financial projections for implementing the project
- f. The buses will be commuter buses with 63 passenger seats capacity and MMT will deploy them on intercity and interurban routes.
- g. 16 selected routes have been chosen for this project. Year 1 fares are almost equivalent to MMT current fares on the selected routes for none air-conditioned buses. Load factor is expected to be a minimum of 90%
- h. Annual revenue is expected to increase by a minimum of 5%.

2. INCOME STATEMENT SUMMARY

The income statement summaries the expected revenue and cost for running the buses for seven year period and the conclusion is that the project will accumulate total of GHC10.5million profit at the end of the seven year period. The cost include full depreciation of the buses and the interest on the export credit using 3.5% as the rate.

Statement of Profit or Loss & Other Comprehensive Income

Year	2019	2020	2021	2022	2023	2024	2025	2026
Currency	GHC	GHC	GHC	GHC	GHC	GHC	GHC	GHC
Revenue	-	35,489,184	35,302,399	35,008,212	34,596,351	31,785,397	30,990,762	30,037,200
Cost of Revenue	-	(28,620,807)	(28,835,715)	(29,387,889)	(29,684,293)	(28,777,573)	(28,604,626)	(28,765,410)
Gross Profit	-	6,868,377	6,466,684	5,620,323	4,912,057	3,007,825	2,386,136	1,271,790
Administrative Expenses	-	(1,774,459)	(1,765,120)	(1,750,411)	(1,729,818)	(1,589,270)	(1,549,538)	(1,501,860)
Operating Profit	-	5,093,917	4,701,564	3,869,913	3,182,240	1,418,555	836,598	(230,070)
Finance Cost	-	(857,936)	(1,099,734)	(910,100)	(839,559)	(804,802)	(750,128)	(671,267)
Profit Before Tax	-	4,235,981	3,601,830	2,959,813	2,342,681	613,753	86,470	(901,337)
Corporate Tax (35%)	-	-	(900,458)	(739,953)	(585,670)	(153,438)	-	-
Profit After Tax	-	4,235,981	2,701,373	2,219,860	1,757,011	460,315	86,470	(901,337)
<i>Other Income</i>	-	-	-	-	-	-	-	-
Total Comprehensive Income	-	4,235,981	2,701,373	2,219,860	1,757,011	460,315	86,470	(901,337)

Statement of Retained Earnings

Year	2019	2020	2021	2022	2023	2024	2025	2026
Currency	GHC	GHC	GHC	GHC	GHC	GHC	GHC	GHC
Opening Balance	-	4,235,981	4,235,981	6,937,354	9,157,214	10,914,225	11,374,539	11,461,010
Profit after Tax	-	4,235,981	2,701,373	2,219,860	1,757,011	460,315	86,470	(901,337)
	-	4,235,981	6,937,354	9,157,214	10,914,225	11,374,539	11,461,010	10,559,673
Closing Balance	-	4,235,981	6,937,354	9,157,214	10,914,225	11,374,539	11,461,010	10,559,673

3. ASSUMPTION 1: REVENUE

The revenue is made up of ticket revenue and luggage revenue determined as 10% of ticket revenue.

REVENUE

Refer to Assumption

2

Assumption 1

Revenue Summary

Year	2019	2020	2021	2022	2023	2024	2025	2026
Currency	GHC	GHC	GHC	GHC	GHC	GHC	GHC	GHC
Ticket Revenue								
Per Note 3	-	32,262,894	32,093,090	31,825,647	31,451,228	28,895,816	28,173,420	27,306,546
Luggage Revenue								
10% on Ticket revenue	-	3,226,289	3,209,309	3,182,565	3,145,123	2,889,582	2,817,342	2,730,655
Batch 2	-	-	-	-	-	-	-	-
Total Revenue from Operations	-	35,489,184	35,302,399	35,008,212	34,596,351	31,785,397	30,990,762	30,037,200

4. ASSUMPTION 2 (BASIS OF REVENUE PROJECTION)

The ticket revenue is projected on daily revenue (ref.Assumption2A) times number of days in a year. The number of days in a year is the effective working days which considers the available days in a year and fleet availability (bus efficiency) as indicated in the table below. In year 1 for instance, effective days equal 274. Revenue for year 1 therefore is equal to 274 times the estimated revenue per day for both passenger ticket and luggage revenue.

Refer to Assumption 2A

Assumption 2

	year1	year2	year3	year4	year5	year6	year7	
Year	2019	2020	2021	2022	2023	2024	2025	2026
Coaches								
Number of Days in a Week	6	6	6	6	6	6	6	6
Number of Weeks in a Month	4	4	4	4	4	4	4	4
Number of Months in a Year	12	12	12	12	12	12	12	12
Available Number of Days in a Year		288	288	288	288	288	288	288
Bus Efficiency		95%	90%	85%	80%	70%	65%	60%
Effective number of days in a year		273.6	259.2	244.8	230.4	201.6	187.2	172.8
Ticket Revenue per day (GHC)		117,920	123,816	130,007	136,507	143,332	150,499	158,024
Luggage Revenue per day (GHC)		11,792	12,382	13,001	13,651	14,333	15,050	15,802
Annual Ticket Revenue (GHC) (1)		32,262,894	32,093,090	31,825,647	31,451,228	28,895,816	28,173,420	27,306,546
Annual Luggage Revenue (GHC) (2)		3,226,289	3,209,309	3,182,565	3,145,123	2,889,582	2,817,342	2,730,655
Total Revenue (GHC) (1+2)		35,489,184	35,302,399	35,008,212	34,596,351	31,785,397	30,990,762	30,037,200

5. ASSUMPTION 2A (ROUTES AND DAILY REVENUE PROJECTION)

Assumption 2A

Routes for 55 VDL BUSES

Underlying Assumptions:

Bus Capacity 63
 Passenger to Carry per T 57
 Load Factor 90%

Revenue from Daily Operations in Year 1 (2020)													
	Routes	Allocated		Total/ Trips	Kms/ Trip	Dist to Cover (Kilometers)	Paxs to Carry	Fare per		Ticket Rev GHC	Lugg Rev 10% PR	Total Rev GHC	MMT CURRENT FARES
		Buses	rips/Bu Day					Km (GHC)	Trip GHC				
1	ACCRA	3	1	3	782	2,346	170	0.080	63	10,641	1,064	11,706	60
2	ACCRA	3	1	3	620	1,860	170	0.080	50	8,437	844	9,281	50
3	ACCRA	3	1	3	275	825	170	0.080	22	3,742	374	4,116	20
4	TAKORADI	3	2	6	293	1,758	320	0.084	25	7,871	787	8,658	25
5	CAPE COAST	3	1	3	215	645	170	0.085	18	3,109	311	3,419	18
6	KUMASI	3	1	3	328	984	170	0.121	40	6,751	675	7,426	40
7	KUMASI	3	1	3	448	1,344	170	0.080	36	6,096	610	6,706	35
8	KUMASI	3	1	3	546	1,638	170	0.092	50	8,544	854	9,399	50
9	SUNYANI	3	1	3	481	1,443	170	0.073	35	5,973	597	6,570	35
10	HO	3	1	3	325	975	170	0.103	33	5,694	569	6,264	34
11	ACCRA	3	1	3	236	708	170	0.095	22	3,814	381	4,195	23
12	SUNYANI	3	1	3	319	957	170	0.130	41	7,054	705	7,759	42
13	SWEDRU	3	1	3	224	672	170	0.220	49	8,383	838	9,221	50
14	SUNYANI	4	1	4	352	1,408	227	0.143	50	11,416	1,142	12,558	50
15	SUNYANI	2	1	2	525	1,050	113	0.083	44	4,941	494	5,436	45
16	ACCRA	2	1	2	224	448	113	0.113	25	2,870	287	3,157	26
17	ACCRA	2	1	2	221	442	113	0.119	26	2,982	298	3,281	27
18	ACCRA	2	1	2	225	450	113	0.125	28	3,189	319	3,508	28
19	ACCRA	2	1	2	282	564	113	0.095	27	3,038	304	3,342	27
20	ACCRA	2	1	2	350	700	113	0.085	30	3,374	337	3,711	30
		55		58		21,217	3,268			117,920	11,792	129,712	
		55		58		21,217	3,268			117,920	11,792	129,712	

6. ASSUMPTION 3: COST OF REVENUE (OPERATING COST)

Operating cost is estimated below. Total Revenue has been added on top for the purposes of determining the ratio of cost relative to revenue. MMT uses the ratio to assess the level of cost and in the case of fuel for instance, it is expected that it will not exceed 35% in the first three years of operation. The ratio of 32 in year 1 and 2 is therefore good.

Assumption 3 Refer Assumption to 3A - 3G

COST OF REVENUE												
Year	2019	2020	2021	2022	2023	2024	2025	2026				
Currency	GHC	GHC	GHC	GHC	GHC	GHC	GHC	GHC				
TOTAL REVENUE		35,489,184	35,302,399	35,008,212	34,596,351	31,785,397	30,990,762	30,037,200				
Cost of Fuel Consumed	-	11,236,900	11,444,382	11,959,548	12,489,255	11,487,200	11,871,968	12,239,372				
Maintenance & Servicing	-	1,519,741	1,511,743	1,873,931	1,851,885	2,268,559	2,211,845	2,143,788				
Tyre & Tube Replacement	-	995,138	1,037,038	1,077,368	1,115,392	1,073,565	1,096,570	1,113,441				
Batteries Replacement Loading & Toll Expenses	-	87,075	86,616	85,894	84,884	77,987	76,037	73,698				
Bus Washing Expenses	-	451,440	449,064	445,322	440,083	404,326	394,218	382,088				
Printing of Tickets & Tags	-	491,797	475,231	457,806	439,494	392,248	371,515	349,796				
Comprehensive Insurance	-	1,662,375	1,662,375	1,329,900	1,246,781	1,163,663	1,080,544	997,425				
Drivers' Salaries	-	2,193,231	2,193,231	2,193,231	2,083,569	2,083,569	1,754,585	1,754,585				
Mechanics' Salaries	-	326,700	326,700	326,700	310,365	310,365	261,360	261,360				
Financing Arrangement Fee	-	709,784	706,048	700,164	691,927	635,708	619,815	600,744				
Depreciation Expense	-	8,311,875	8,311,875	8,311,875	8,311,875	8,311,875	8,311,875	8,311,875				
	-	28,620,807	28,835,715	29,387,889	29,684,293	28,777,573	28,604,626	28,765,410				

7. DETAIL OF THE VARIOUS OPERATING COST (ASSUM. 3)

Assumption 3A

DIRECT COST ESTIMATION

Tyres & Tubes		2020	2021	2022	2023	2024	2025	2026
Year								
BUSES								
Total Effective distance covered	5,804,971	5,499,446	5,193,922	4,888,397	4,277,347	3,971,822	3,666,298	
Distance covered per replacement	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000
Number of replacements	83	79	74	70	61	57	52	52
Number of Buses	55	55	55	55	55	55	55	55
Number of tyres per Bus	6	6	6	6	6	6	6	6
Replacement per Bus	1.51	1.43	1.35	1.27	1.11	1.03	0.95	0.95
Number of tries replaced	498	471	445	419	367	340	314	314
Cost per tyre (GHC)	2,000	2,200	2,420	2,662	2,928	3,221	3,543	
Total cost of tyre replacement (GHC)	995,138	1,037,038	1,077,368	1,115,392	1,073,565	1,096,570	1,113,441	1,113,441
Batteries								
Year								
BUSES								
Total Effective Distance Covered	5,804,971	5,499,446	5,193,922	4,888,397	4,277,347	3,971,822	3,666,298	
Distance Covered per Replacement	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Number of Replacements	58	55	52	49	43	40	37	37
Cost per Batteries (GHC)	1,500	1,575	1,654	1,736	1,823	1,914	2,010	
Total Cost of Tyre Replacement (GHC)	87,075	86,616	85,894	84,884	77,987	76,037	73,698	73,698

DIRECT COST ESTIMATION**Toll and Loading Expense**

Year	2020	2021	2022	2023	2024	2025	2026
Number of Trips per Day	58	58	58	58	58	58	58
Effective number of Days in a Year	274	259	245	230	202	187	173
Number of Trips in a Year	15,869	15,034	14,198	13,363	11,693	10,858	10,022
Loading Charges per Trip (GHC)	40	42	44	46	49	51	54
Total Loading Expenses (A)	634,752	631,411	626,149	618,783	568,507	554,294	537,239

Assumption 3C

Refer to Assumption 3G. Refer to Revenue for Effective No of days computation

DIRECT COST ESTIMATION**Printing Ticket & Luggage Tags**

Year	2020	2021	2022	2023	2024	2025	2026
<u>BUSES</u>							
Effective number of days in a year	274	259	245	230	202	187	173
Number of Passengers per Day	3,268	3,268	3,268	3,268	3,268	3,268	3,268
Total Number of Tickets	894,176	847,114	800,052	752,991	658,867	611,805	564,743
Ticket cost per Passenger (GHC)	0.55	0.56	0.57	0.58	0.60	0.61	0.62
Total Cost of Tickets (GHC) -A	491,797	475,231	457,806	439,494	392,248	371,515	349,796

Assumption 3D

Refer to Revenue for Effective No of days computation

DIRECT COST ESTIMATION

Washing Expenses

Year	2020	2021	2022	2023	2024	2025	2026
BUSES							
Batch 1:							
Effective Number of Days in a Year	274	259	245	230	202	187	173
Number of Buses	55	55	55	55	55	55	55
Number of Times of Washing	15,048	14,256	13,464	12,672	11,088	10,296	9,504
Cost per Bus Washed (GHC)	30	32	33	35	36	38	40
Total Cost of Washing (GHC) - A	451,440	449,064	445,322	440,083	404,326	394,218	382,088

Assumption 3E

Refer to Revenue for Effective No of days computation

DIRECT COST ESTIMATION

Distance Covered & Fuel Consumption Forecast

Year	2020	2021	2022	2023	2024	2025	2026
Forecast Distance Covered & Fuel Consumption: 55 VDL BUSES							
Effective number of days in a year	274	259	245	230	202	187	173
Daily distance covered (km)	21,217	21,217	21,217	21,217	21,217	21,217	21,217
Effective annual distance covered (km)	5,804,971	5,499,446	5,193,922	4,888,397	4,277,347	3,971,822	3,666,298
Average fuel consumption (Km/L)	3	3	3	3	3	3	3
Total volume of fuel consumed (Litre)	1,934,990	1,833,149	1,731,307	1,629,466	1,425,782	1,323,941	1,222,099
Fuel consumption efficiency	100%	100%	95%	90%	90%	85%	80%
Effective volume of fuel consumed (Litre)	1,934,990	1,833,149	1,822,429	1,810,517	1,584,203	1,557,577	1,527,624
Average fuel price per litre (GHC)	5.81	6.24	6.56	6.90	7.25	7.62	8.01
Total cost of fuel (GHC) - A	11,236,900	11,444,382	11,959,548	12,489,255	11,487,200	11,871,968	12,239,372

DIRECT COST ESTIMATION**Maintenance & Servicing Costing**

Year	2020	2021	2022	2023	2024	2025	2026
<u>Coaches</u>							
Total effective distance covered (km)	5,804,971	5,499,446	5,193,922	4,888,397	4,277,347	3,971,822	3,666,298
Average distance per servicing (km)	25,000	25,000	20,000	20,000	15,000	15,000	15,000
Number of servicing required	232	220	260	244	285	265	244
Average cost per servicing (GHC)	6,545	6,872	7,216	7,577	7,955	8,353	8,771
Total cost of servicing (GHC) 1	1,519,741	1,511,743	1,873,931	1,851,885	2,268,559	2,211,845	2,143,788

Assumption 3G**DIRECT COST ESTIMATION****Fuel Price Forecast**

Base 5.5

Months	Mth 1	Mth 2	Mth 3	Mth 4	Mth 5	Mth 6	Mth 7	Mth 8	Mth 9	Mth 10	Mth 11	Mth 12	Average
<i>All figures in GHC</i>													
2020	5.55	5.59	5.64	5.69	5.73	5.78	5.83	5.88	5.93	5.98	6.03	6.08	5.81
2021	6.10	6.13	6.15	6.18	6.20	6.23	6.26	6.28	6.31	6.33	6.36	6.39	6.24
2022	6.41	6.44	6.47	6.49	6.52	6.55	6.58	6.60	6.63	6.66	6.69	6.71	6.56
2023	6.74	6.77	6.80	6.83	6.85	6.88	6.91	6.94	6.97	7.00	7.03	7.06	6.90
2024	7.09	7.12	7.15	7.18	7.21	7.24	7.27	7.30	7.33	7.36	7.39	7.42	7.25
2025	7.45	7.48	7.51	7.54	7.57	7.61	7.64	7.67	7.70	7.73	7.77	7.80	7.62
2026	7.83	7.86	7.90	7.93	7.96	7.99	8.03	8.06	8.09	8.13	8.16	8.20	8.01

Assumptions:

Fuel price is projected to increase BY 10% IN YEAR 1 and 5% average annually after year 1

8. ADMINISTRATIVE EXPENSES (ASSUMPTION 4)

On average, MMT uses 5% of its revenue for administrative expenses and that has been used to make provision for administrative expenses for this project.

Administrative Expenses Estimate

Year	2019	2020	2021	2022	2023	2024	2025	2026
Currency	GHC	GHC	GHC	GHC	GHC	GHC	GHC	GHC
Percentage of Revenue	5%	5%	5%	5%	5%	5%	5%	5%
Total Revenue	-	35,489,184	35,302,399	35,008,212	34,596,351	31,785,397	30,990,762	30,037,200
Amount Recongnised	-	1,774,459	1,765,120	1,750,411	1,729,818	1,589,270	1,549,538	1,501,860

Administrative Expenses
Covering items that include the following
Electricity and Other Utilities
Staff Uniforms
Administrative Salaries
Roadworthiness & Permit
Security
Advert an Marketing
Transport and Allowances
Other Admin. Expenses

9. FINANCING COST (ASSUMPTION 5)

The financing cost in the income statement is made up of interest on the export credit as in the table below:

Financing Schedule - Belgium Government loan and Export credit

Year	2019	2020	2021	2022	2023	2024	2025	2026
Currency	€	€	€	€	€	€	€	€
Opening Balance	-	11,942,029	12,067,826	12,214,418	12,324,704	11,985,021	11,633,449	11,269,571
Additions	11,942,029							
Interest Accrued (only export credit)		125,797	146,592	110,286	92,489	80,600	68,295	55,559
	11,942,029	12,067,826	12,214,418	12,324,704	12,417,193	12,065,621	11,701,743	11,325,131
Principal & Interest Repayment	-							
	-				(432,172)	(432,172)	(432,172)	(432,172)
Closing Balance	11,942,029	12,067,826	12,214,418	12,324,704	11,985,021	11,633,449	11,269,571	10,892,959
Exchange Rates	6.20	6.82	7.50	8.25	9.08	9.99	10.98	12.08
	GHC	GHC	GHC	GHC	GHC	GHC	GHC	GHC
Opening Balance	-	74,040,580	74,898,516	75,998,250	76,908,350	77,747,908	78,552,710	79,302,838
Additions	74,040,580							
Interest Accrued		857,936	1,099,734	910,100	839,559	804,802	750,128	671,267
	74,040,580	74,898,516	75,998,250	76,908,350	77,747,908	78,552,710	79,302,838	79,974,105
Principal & Interest Repayment	-							
	-				(3,923,006)	(4,315,306)	(4,746,837)	(5,221,521)
Closing Balance	74,040,580	74,898,516	75,998,250	76,908,350	73,824,903	74,237,404	74,556,001	74,752,584

10. OTHER ATTACHEMENT NOTES

a. Loan Amortisation of commercial loan of 3,594,203.00 euros for the interest on the export credit. The

Belgium Government loan of 8million euros is interest free.

Enter values	
Loan amount	\$ 3,594,203.00
Annual interest rate	3.50 %
Loan period in years	10
Number of payments per year	1
Start date of loan	12/31/2019
Optional extra payments	

Loan summary	
Scheduled payment	\$ 432,171.89
Scheduled number of payments	10
Actual number of payments	10
Total early payments	\$ -
Total interest	\$ 727,515.85

Lender name:

Date	Beginning Balance	Scheduled Payment	Extra Payment	Total Payment	Principal	Interest	Ending Balance	Cumulative Interest
12/31/2020	€ 3,594,203.00	€ 432,171.89	€ -	€ 432,171.89	€ 306,374.78	€ 125,797.11	€ 3,287,828.22	€ 125,797.11
12/31/2021	€ 3,287,828.22	€ 432,171.89	€ -	€ 432,171.89	€ 317,097.90	€ 115,073.99	€ 2,970,730.32	€ 240,871.09
12/31/2022	€ 2,970,730.32	€ 432,171.89	€ -	€ 432,171.89	€ 328,196.32	€ 103,975.56	€ 2,642,534.00	€ 344,846.65
12/31/2023	€ 2,642,534.00	€ 432,171.89	€ -	€ 432,171.89	€ 339,683.20	€ 92,488.69	€ 2,302,850.80	€ 437,335.34
12/31/2024	€ 2,302,850.80	€ 432,171.89	€ -	€ 432,171.89	€ 351,572.11	€ 80,599.78	€ 1,951,278.70	€ 517,935.12
12/31/2025	€ 1,951,278.70	€ 432,171.89	€ -	€ 432,171.89	€ 363,877.13	€ 68,294.75	€ 1,587,401.57	€ 586,229.88
12/31/2026	€ 1,587,401.57	€ 432,171.89	€ -	€ 432,171.89	€ 376,612.83	€ 55,559.05	€ 1,210,788.74	€ 641,788.93
12/31/2027	\$ 820,994.46	\$ 432,171.89	\$ -	\$ 432,171.89	\$ 389,794.28	\$ 42,377.61	\$ 820,994.46	\$ 684,166.54
12/31/2028	\$ 417,557.38	\$ 432,171.89	\$ -	\$ 432,171.89	\$ 403,437.08	\$ 28,734.81	\$ 417,557.38	\$ 712,901.34
12/31/2029	\$ -	\$ 432,171.89	\$ -	\$ 417,557.38	\$ 402,942.87	\$ 14,614.51	\$ -	\$ 727,515.85

The interest at the end of the 10 year period will amount to €727,515 (Note...the monatorium of 2 years was not considered in the calculation.

b. Financing Arrangement Fees Assumption

Provision for Financing Arrangement									
Year	2020	2021	2022	2023	2024	2025	2026		
Currency	GHC	GHC	GHC	GHC	GHC	GHC	GHC		
Percentage of Revenue	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%		
Revenue	35,489,184	35,302,399	35,008,212	34,596,351	31,785,397	30,990,762	30,037,200		
	709,784	706,048	700,164	691,927	635,708	619,815	600,744		

c. Staffing Schedule

d. Cost of Maintenance (Proposal from VDL and Scania to MMT)

ADDITIONAL STAFFING PLAN & STAFF REMUNERATION

Year	2020	2021	2022	2023	2024	2025	2026
Staffing Plan							
Drivers (2.4 per Bus)	132	132	132	125	125	106	106
Mechanics (0.33 per Bus)	18	18	18	17	17	15	15
Conductors (2.4 per Bus)	110	110	110	105	105	88	88
Total	260.15	260.15	260.15	247.1425	247.1425	208.12	208.12

Staff Remuneration

Year	2020	2021	2022	2023	2024	2025	2026
Currency	GHC	GHC	GHC	GHC	GHC	GHC	GHC
Positions:	Monthly Salary						
Drivers	1,385	2,193,231	2,193,231	2,083,569	2,083,569	1,754,585	1,754,585
Mechanics	1,500	326,700	326,700	310,365	310,365	261,360	261,360
Conductors	900	1,188,000	1,188,000	1,128,600	1,128,600	950,400	950,400
	3,785	3,707,931	3,707,931	3,522,534	3,522,534	2,966,345	2,966,345

ESTIMATED MAINTENANCE COST PER BUS SUBMITTED BY SUPPLIERS

	REPAIRS & MAINTENANCE	OIL COST	TYRES COST
VDL INTER CITY BUS			
COST PER KM IN EUROS (€)	0.050	0.005	0.030
COST PER KM IN GHC @ 5.95 EXCHANGE RATE	0.298	0.030	0.179

SCANIA INTER CITY BUS

COST PER KM IN \$	0.200	0.060	0.040
COST PER KM IN GHC @5.27 EXCHANGE RATE	1.054	0.316	0.211
MIMT AVERAGE COST PER KM IN GHC	0.293	0.061	0.114

ANNUAL COST PER 90,000KM IN GHC

MIMT AVERAGE	26,350.32	5,520.33	10,258.64
VDL	26,775.00	2,677.50	16,065.00
SCANIA	94,860.00	28,458.00	18,972.00

KM PER EVRY SERVICING

20,000.00 20,000.00

NUMBER OF SERVICING PER YEAR

4.50

4.50

AVERAGE COST (GHC)PER SERVICING /KM

MIMT AVERAGE	5,855.63	1,226.74	7,082.37
VDL	5,950.00	595.00	6,545.00
SCANIA	21,080.00	6,324.00	27,404.00

The average cost per servicing (maintenance and oil) of GHC6,545 was used in the maintenance cost estimate at Assumption 3F at page 11. The tyre estimate used the price and quantity approach and not the estimate at this page.