

LAGOS STATE GOVERNMENT Transportation Deal Book



2018



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1. Preface

Lagos state is one of the most attractive destinations for investment in Africa and the State Government is looking to partner with private sector investors to expand the delivery of services and hasten the pace of development across the state.

The State Ministry of Transport and Lagos Metropolitan Area Transport Authority aim to provide an integrated multimodal transport system across the Lagos metropolis with the State Government proposing to provide critical infrastructure and potential investors contribute the rolling stocks.



Welcome to Lagos State



Governor Akinwunmi Ambode
The Governor
Lagos State
Nigeria

It is with great pleasure that I welcome you to Lagos State – the centre of excellence in Nigeria, the hub of economic activities in West Africa and one of the fastest growing markets in Africa. Lagos is regarded as an important financial hub in the continent and one of the fastest growing cities globally. We are proud to host a vibrant population of over twenty million people with a GDP in excess of USD 130 billion.

My administration is committed to improving the quality of life that residents experience and is working towards deepening the enabling environment for businesses to thrive. Our aim is to make Lagos the most desirable destination for businesses seeking socio-economic impact and good financial returns. To this end, we have streamlined regulations, simplified government processes and invested in improving our people and administrative institutions.

As we continue to play our part, we invite private sector participants and investors to join us to hasten the pace of development and improve standards across Lagos State. Opportunities exist across all sectors of our economy and our aim is to showcase such opportunities and provide a guide that simplifies the process of private sector investment in projects and/or partnership with the Lagos State Government to deliver much needed growth and development.

We very much look forward to partnering with you and more importantly, to fostering significant and sustainable socio-economic development in Lagos State.

Itesiwaju ipinlẹ̀ Ekoloji wa logun!



Our Transportation Sector is Open for Business



Mr Ladi Lawanson
Honourable Commissioner
Ministry of Transport Lagos State
Nigeria

The Lagos State Ministry of Transport aims to make public transportation, affordable, rapid, efficient, effective and accessible and sundry in Lagos State. This is expected to be achieved through the provision of world class, multi-modal transport systems and infrastructure. Under the administration of Governor Ambode, the Ministry introduced the Reform initiative aimed at giving Lagosians an integrated public transportation system.

The Lagos State Ministry of Transport is committed to providing a safe, dynamic, integrated, affordable, diverse and sustainable transport system which supports optimal use of resources, social infrastructure and quality of life. It is the mission to ensure affordable and efficient movement of people and goods through well articulated transport policy, world class air, sea and road transport infrastructure, efficient traffic management, enforcement of traffic regulations, provision of an integrated multi-modal transport system and adherence to global pollution accepted levels/standards and quality of life.

It is therefore with high expectation that we open up the transportation sector in Lagos State to potential investors to partner with us to achieve our goals.



Engr. Abiodun Dabiri
Managing Director Lagos
Metropolitan Area
Transport Authority
(LAMATA)
Lagos State

The Lagos Metropolitan Area Transport Authority has been charged with developing an integrated transport system for Lagos, which is to be executed through the Strategic Transport Master Plan that details the requirements of transport infrastructure Lagos State up to the year 2032.

Our current focus is delivering world class solutions to the problems of commuting, congestion and pollution that have been synonymous with transportation in Lagos. To this end, we seek partnership arrangements with the private sector where the Lagos State Government will provide critical rail infrastructure and the investor/operator will provide the rolling stock.

As such, we have developed this investment brochure for your information and further analysis of prospective projects within the transportation sector and presents a description of the project opportunities, an independent assessment of their viability, risk assessment, potential partnership structures and guidelines for investing.

We trust that you will find this brochure insightful and contact us for further details.



LIST OF ABBREVIATIONS

AfDB	African Development Bank	LASU	Lagos State University
BOO	Build Own Operate	LFTZ	Lekki Free Trade Zone
BOT	Build Operate Transfer	LRMT	Lagos Rail Mass Transit
BRI	Bus Reform Initiative	LURN	Lagos Urban Rail Network
BRT	Bus Rapid Transit Central	MSMEs	Micro, Small and Medium Enterprises
CBN	Bank of Nigeria Design	NGN	Nigerian Naira
DB	Build	NSIA	Nigeria Sovereign Investment Authority
DBB	Design Bid-Build	PPP	Public Private Partnership
DBFO	Design Build Finance Operate	TSA	Treasury Single Account
EMU	Electric Multiple Units	VAT	Value Added Tax
ERGP	Economic Recovery Growth Plan		
FAAN	Federal Airports Authority of Nigeria		
FCT	Federal Capital Territory		
FDI	Foreign Direct Investment		
GDP	Gross Domestic Product		
LAMATA	Lagos Metropolitan Area Transport Authority		

2. Executive Summary

The Lagos State Ministry of Transport and the Lagos Metropolitan Area Transport Authority have identified three potential investment areas where they seek partnership and investment to develop further. These are:

- Bus Rapid Transit (BRT) Project proposed between Apapa - Oworonshoki
- Greenlinerail project
- Purplelinerail project

The State Government is creating the enabling environment for these investments and has identified incentives which interested investors can benefit from.



Executive Summary

<p>Enabling Environment</p>	<p>Investing in transportation infrastructure in Africa will boost intra-African economy. The over-reliance on road transportation and under-utilization of rail transportation in Nigeria present opportunities and growth. Introduction of initiatives such as the payment vision 2020, which embeds electronic payments across sectors and the Bus Reform Initiative which improves the access of hundreds of people to public transportation and promote socioeconomic development. Access to credit for this sector has also been prioritized by both the Federal and State Governments, the CBN and NSIA.</p>
<p>BRT Project Opportunity</p>	<p>The BRT Project opportunity is a 12.7km corridor between Apapa and Oworonshoki championed by WAPDA. The project is set to commence in 2022. The Apapa-Oworonshoki BRT project offers high passenger demand guaranteed by the State Government, competitive fares and the added advantage of faster travel times facilitated by BRT lanes. The proposed management structure for this project is the Build-Operate-Transfer (BOT) and it is to be executed in two phases.</p>
<p>Green Line Rail Project Opportunity</p>	<p>The Green Line Rail Project is a 6.8km rail-based commuter service between Bakki Free Trade Zone and Marina which is set to commence in 2022. The proposed project to be developed on the basis of Build-Operate-Transfer (BOT) Public Private Partnership under favourable business conditions. The Green Line Project has an estimated passenger volume of 815,000 and an investment requirement of ₦1.6 billion.</p>
<p>Purple Line Rail Project Opportunity</p>	<p>The Purple Line project is a 85.7km rail route set to be opened for use in 2032. The proposed project to be developed on the basis of Build-Operate-Transfer (BOT) and provides investment guarantee to potential investors of the project. The Purple Line Project has an estimated passenger volume of 720,000 and an investment requirement of ₦1.3 billion.</p>
<p>Investment Process</p>	<p>The Investment Process for many of the Lagos State transportation projects involves five stages:</p> <ul style="list-style-type: none"> o Expression of Interest o Response from Lagos State o Due Diligence o Submission o Internal Review

3. Enabling Environment

Federal and State laws have been strengthened to create an enabling business environment for private sector led growth, increase the attractiveness and viability of different infrastructure projects, as well as to ensure more efficient regulation in the transportation sector.

Investing in transportation rolling stock, accompanied by incentives and the Federal government has offered concessions of road projects to the private sector in exchange for tax holidays. Credit enhancement facilities at both the federal and state government levels are available to investors in the transportation sector.



Enabling Environment

The global transportation industry has recorded diverse trends over the years

Trends in the Global Transportation Industry

Climate Change



- § Transportation accounts for about 64% of global oil consumption, 27% of all energy use and 23% of the energy-related CO₂ emissions
- § CO₂ emissions from transport could increase by 60% by 2050
- § The environmental impact of transportation sector has proliferated due to rising motorization rates

Rapid Urbanisation and Motorisation



- § Cities will be home to 5.4 billion residents by 2050
- § Motorised mobility in cities is to reach 1 billion by 2050
- § Urban rail transport has registered a constant positive development with a growth rate of 5.4% from 2005 to 2015

Accessibility and Affordability



- § Air passengers continue to grow as cities around the world become more accessible by air and air travel time shorten
- § An estimated one billion people in low-income countries lack access to all-weather road
- § High mobility costs cut the disposable income of the poor who often lack reliable and affordable

Increasing Movement of People



- § The robust average annual growth rate of the global transport industry relies on the high demand for business travel and tourism
- § Transport companies are taking advantage of the high movement of people and low oil price as such net profits have doubled between 2014 and 2016

Transportation is a critical driver of social and economic development and facilitates economies competitiveness. The infrastructure expedites the global supply of goods and services.

Source: World Bank (2017), Euler Hermes (2017), A.G.P. Research



Enabling Environment

Investing in transportation infrastructure will boost intra-African trade and transform the continent's economy



Transportation in Africa

- § There is a deficit in the transportation infrastructure in Africa as an estimated 33% of Africans living in rural areas have access to seasonal roads.
- § Transportation infrastructure investment in sub-Saharan Africa (SSA) has the fastest average annual growth rate at 11% and the majority of the growth is expected in roads and
- § Developing countries face the challenge of inadequate supply of transportation infrastructure, limiting accessibility to consumers and inhibiting intraregional trade
- § The continent comprises 55 countries with varying transportation infrastructure maturity and weak transportation links which has resulted in low intra-African trade and as of 2011, the total intra-African trade accounted for only 1% of global African trade
- § The majority of the rail lines in many African countries are left over from the colonial periods and are in need for rehabilitation
- § Some countries have made investments to improve rail transport. South Africa invested more than USD 5 billion in railways and Mozambique has major plans to improve its rail network
- § There are a number of trans-African highways, and several like Lagos-Abidjan highway through West Africa which already is under consideration for expansion plans
- § Transportation investment in Africa has the potential to have the most impact on trade volumes, distribution routes and other related

Source: UNCTAD (2013) New Partnership for Africa's Development (2016)



Enabling Environment

Nigeria has relatively advanced infrastructure network that cover extensive areas of the territory



Transportation in Nigeria

- § Transport accounts for 3% of the Gross Domestic Product and the statistics are categorized by modes of transportation: rail, road, water and air.
- § Nigeria has a well developed aviation sector which has experienced substantial growth over the decade due to rapid expansion of domestic services
- § The Nigerian aviation market consists of twenty-two airports spread across the six geopolitical zones and twenty-three active domestic carriers
- § Nigerian road transport accounts for 95% of all modes of transport and has a total road network of 93,200km of which only 5% is paved
- § Recent road projects are executed through public private partnerships. It has the Lekki Toll Road Infrastructure Project which began when Lekki Concession Company was incorporated to design, finance, rehabilitate, upgrade, operate and maintain the Lekki Toll Road, under a 30 year Concession mandate from the Lagos State
- § The Nigerian railway network is largely underutilized with 38% of the 280 railway stations in the country functional and as such, the Federal Government allocated NGN10.7 billion in 2013 for the rehabilitation of rail tracks and procurement of coaches, wagons and locomotives
- § General Electric in partnership with a consortium of South Africa, Dutch-based APM terminals and Chinese Sinohydro have been awarded a contract to rehabilitate approximately 500km of existing narrow gauge lines from Lagos to Kano and Port Harcourt to Maiduguri
- § Nigeria also plans to participate in the AfricRail project to rehabilitate and construct 21000km of new railway linking Benin, Burkina Faso, Côte d'Ivoire, Liberia, Nigeria and Nigeria
- § Nigeria has over 10,000km of navigable inland waterways, 3,800 kilometers that are navigable seasonally. Rivers Niger and Benue constitute the major channels for inland navigation

Source: AGP Research, Nigerian Railway Corporation (2016); Nigerian Port Authority (2017); National Inland Waterways Authority (2017); Federal Ministry of Works (2013); Nigerian Bureau of Statistics (2013); Nigeria Civil Aviation Authority (2017)



Enabling Environment

The Lagos State Government has executed various projects to improve transportation of people and goods within the state

Overview of transportation in Lagos



Lagos State is the capital of economic and commercial activities in Nigeria as reflected by the 10% Internally Generated Revenue (IGR) figure of N150.5 billion in the second half of 2016

It is considered as one of the most congested cities in Africa and one of the largest cities in the world, processing 12 motor vehicles per square kilometer traffic into the State

Current trends show a proliferation of low capacity vehicles (minibuses) and the fleets comprise of 35,000-75,000 units of second hand vehicles which provide poor quality

The majority of buses are entirely owned and operated by the private sector although there are major fleet owners and corporate organizations present

The demand for trips in Lagos Metropolitan Area by all transportation modes is approx. 2.4 million per day and demand is likely to grow to over 4 million trips by 2032

Although minibuses (Danfo) convey about 72% of passengers in the Lagos Metropolitan Area, cars account for 65% of the road usage while minibuses account for only 28% of road usage

With a population of over 20 million people and the high volume of road and port traffic the Lagos State government has been collaborating with the private sector over the years to meet the infrastructure requirements

Bus Rapid Transit (BRT) the first of its kind in sub-Saharan Africa, is a transport system which moves about 200,000 commuters daily and has reduced travel time by 80%

Lagos Urban Rail Network (LURN) consists of seven railway lines strategically situated along high commuter demand corridors within the Lagos metropolitan area and beyond and is estimated to cost \$2.4 billion

The state government also commenced the first phase of the LURN project a 2.7 kilometer light rail transit system with thirteen stations from Okokomaiko Marina Blue Line which is operated and maintained by a concessionaire China Civil Engineering Construction Company (CCECC)

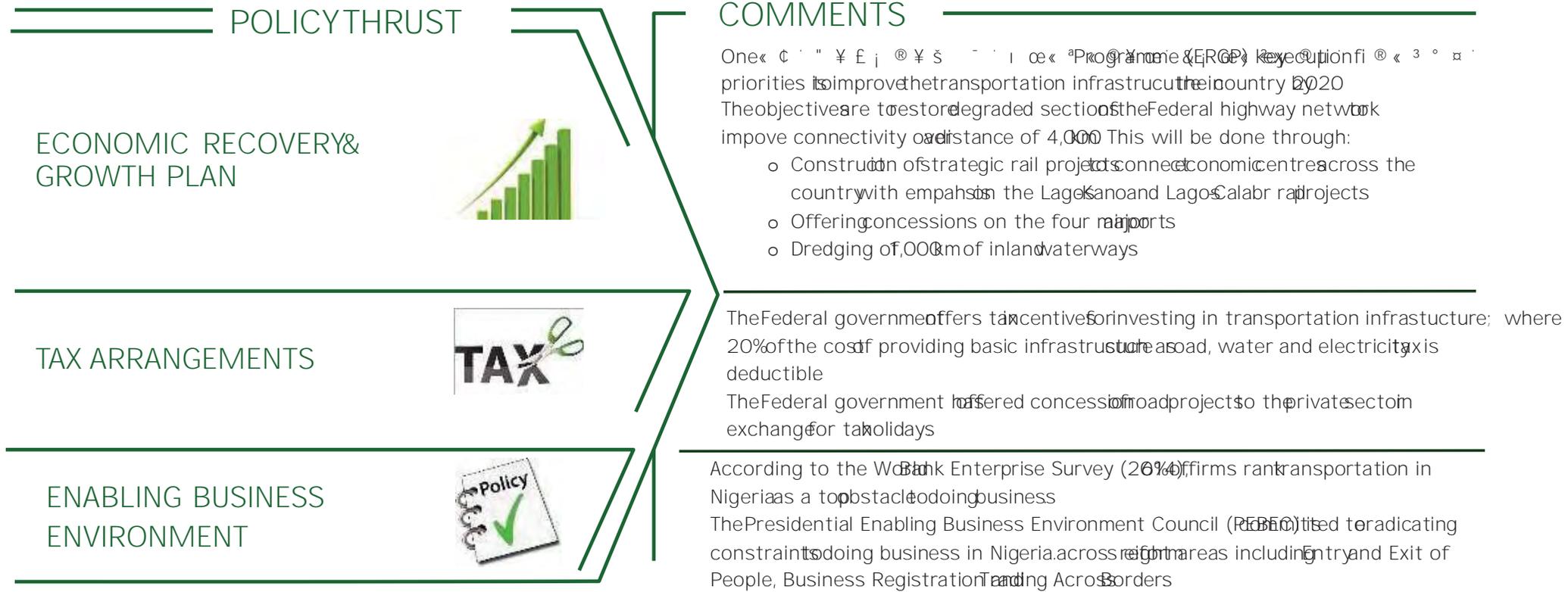
Asides rail, the infrastructure design for Blue Line includes provision for BRT and multimodal integration with non-motorized transport (NMT)

Source: International Monetary Fund (2013) AMATA Strategic Transport Master Plan, AGFR Research



Enabling Environment

The Federal and State governments have put in place policy reforms to improve the transportation infrastructure



Source: Economic Recovery Growth Programme (2017); Nigeria Investment Promotion Commission (2017); AFS Research



Enabling Environment

Relevant agencies have introduced several reforms that will promote growth in the sector



Central Bank of Nigeria

- § The Central Bank of Nigeria has instituted the Payment Vision 2020 to streamline payment at all stages of the transportation chain
- § This initiative is to demonstrate the benefits payments to the transport business is to be publicized upon the implementation of pilot phase
- § A Pilot phase is to be conducted with BRT, \sim § operators and Tax (yellow cab, red cab) operators



Lagos State Government

The Lagos State Government aims to introduce a framework that will support the integration of the entire transportation system in the state road and water by 2025



Lagos Metropolitan Area Transport Authority (LAMATA)

- § LAMATA aims to harness potentials intrinsic to waterways in the state to improve the less than two percent contribution of water transportation to public transport mode in the State. Such, the state government has ordered six world class ferries for its purpose
- § Bus Reform Initiative (BRI) is a programme that has the mandate of procuring 5,000 medium and high capacity buses over a three year period with 72% being high capacity buses
- § The BRI, aimed at fleet of yellow buses with buses that are able to convey larger numbers of people at a time, is to be executed through a bus franchise system involving stakeholder groups operating multiples 50 buses

Source: Economic Recovery Growth Programme (2017); Nigeria Investment Promotion Commission (2017); IGP Research



Enabling Environment

The Federal and State Governments have made efforts to enhance access to credit for transport related projects

Central Bank of Nigeria

The CBN introduced the N300 billion Power and Aviation Intervention Fund (PAIF) to address the challenge of inadequate funds for infrastructural development

The Bank provided N300 billion facility for investment in debentures issued by the Bank of Industry (BOI) for investment in power and aviation projects. The funds are to be channeled through the BOI to lending to the Deposit Money Banks at a maximum interest rate of 1.0 percent for disbursement at concessionary interest rate of not more than 7% and a tenor of 10-15 years



Nigeria Sovereign Investment Authority

The Nigeria Sovereign Investment Authority (NSIA) and GuarantCo development finance funds have established an infrastructure credit enhancement facility, InfraCredit

InfraCredit is a USD 200 million credit enhancement facility based in Lagos State, that will enhance the credit quality of local currency debt instruments, mainly in the form of corporate and infrastructure bonds issued by eligible entities to finance creditworthy infrastructure projects in Nigeria



Lagos Metropolitan Area Transport Authority

Lagos Metropolitan Transport Authority (LAMATA) is a semi-autonomous agency responsible for planning, implementing, regulating and franchising public transport infrastructure and operations in Lagos State

LAMATA was established with the World Bank collaboration in the form of direct financial assistance USD 100 million credit and mandatory Lagos' contribution of USD 35 million



Source: Nigeria Sovereign Investment Authority (2017), LAMATA (2017), CBN (2013), AGP Research

4. BRT Project Opportunity

A Bus Rapid Transit Project is proposed between Apapa and Oworonsho in order to meet the urgent needs of the commuting population on that corridor. This 27km BRT service will ultimately contribute to a 50% reduction in transportation costs.

Lagos Metropolitan Area Transport Authority (LAMATA) is the primary project sponsor and is committed to providing the infrastructure and an enabling framework to facilitate delivery of the project slated for 2022. The project is suggested to be executed under a Build Operate and Transfer (BOT) Public Private Partnership (PPP) with the investor and LAMATA.



BRT Project Opportunity

The success of the BRT-lite project has led to the expansion of the BRT Project which is championed by LAMATA

Overview of the BRT Project



The Bus Rapid Transit (BRT) is an operational system which was introduced in March 2008 to improve the transportation system in the Lagos Metropolis

The success of the pilot, BRT-Lite and the huge demand from the public has led to the expansion of the BRT services to a 2 km-long corridor between the Apapa and Oworonshok Expressway stretch while recognising the challenges of the pilot and devising improvements to the scheme in order to meet the needs of commuters on that corridor

BRT-lite is indicative of the potential viability of the BRT expansion project as it serves a large number of people who can attest to its benefits based on the safety, cost effectiveness and efficiency it provides while travelling between bus destinations

The Apapa-Oworonshok Expressway stretch, which is the focal point of the BRT project, is a major expressway in Lagos State which is characterized by a four-lane expressway and service roads parallel to it.

About the Project Sponsor



Lagos Metropolitan Transport Authority (LAMATA) is the agency responsible for planning, implementing, regulating and franchising public transport infrastructure and operations in Lagos State

LAMATA has been charged with developing an intermodal integrated transport system for Lagos which is to be executed through the Strategic Transport Master Plan that details the requirements of transport infrastructure up to the year 2032

LAMATA is the champion of the BRT expansion project and also provides the enabling framework and infrastructure for the establishment of the Bus Rapid Transit

The BRT-lite project was implemented by public private partners (PPP) where LAMATA provided infrastructure and a private sector operator took regulatory enforcement responsibility, operations and maintenance while a commercial bank provided financing

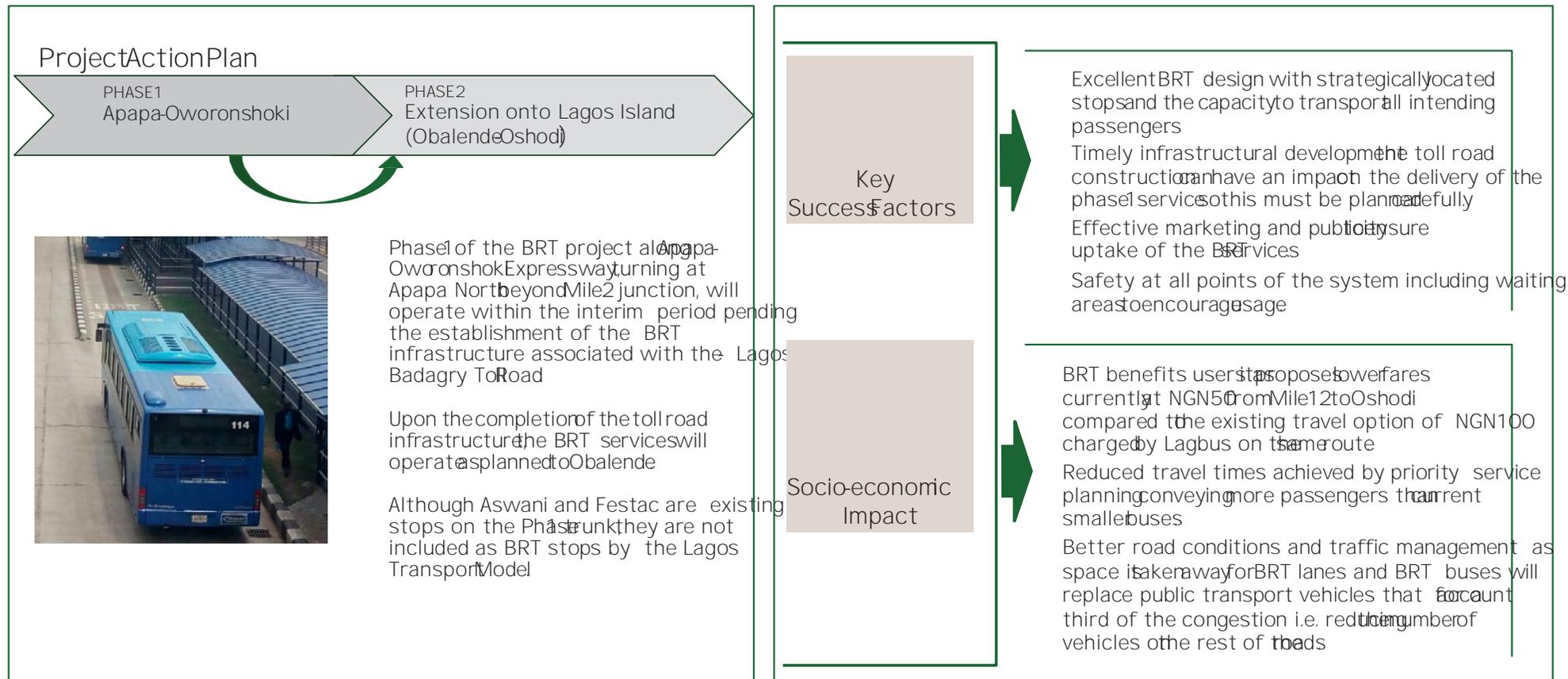
A private sector operator will be consigned to operate the BRT services and enforce stipulated regulations, commit to bus procurement, operations and maintenance

Source: LAMATA (2017); AGR Research



BRT Project Opportunity

The project will be carried out in two phases based on the availability of BRT infrastructure along the slated corridor

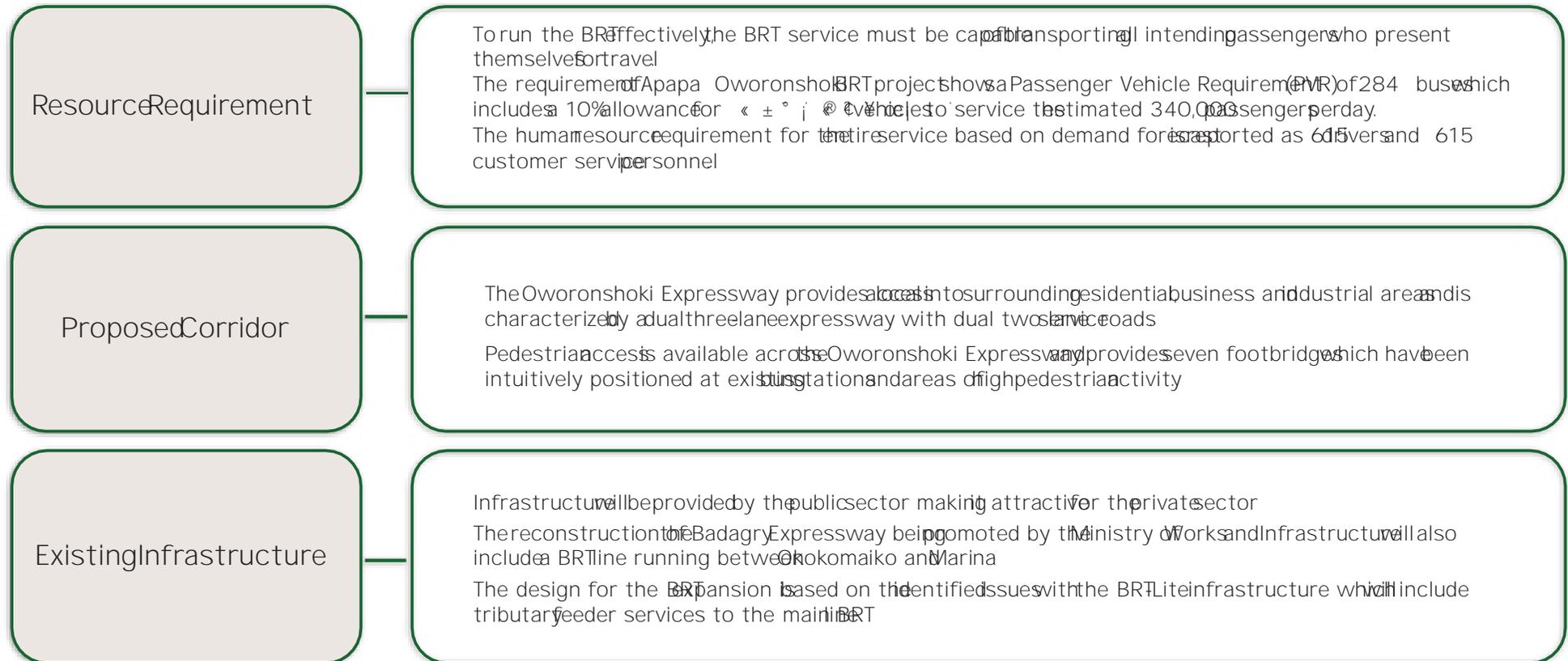


Source: LAMATA (2017) GP Research



BRT Project Opportunity

The success of the proposed project is dependent on the availability of necessary resources and infrastructure



Source: LAMATA (2017), AGP Research



BRT Project Opportunity

The BRT proposes lower fares and short travel times compared to existing transportation options

- 1 **Resource Assessment**
Vehicles selected for the BRT operations must be durable and easy to maintain as well as possess efficient fuel technology. Two types of vehicles are currently used on the BRT-liteline Ashok Lane high floor bus type / 5 " and 2 meter Mercedes (« Buses. However, investors are at liberty to select the type of vehicles based on requirements for size, durability, easy maintenance and efficient fuel technology.

- 2 **Demand Assessment**
The high volume of people currently using Lagos public transport in poor conditions makes BRT in Lagos very attractive. Additionally, Lagosians have been sensitised with BRT not just as a concept, but as a successfully functional system. Based on demand, the main trip generators along the BRT corridor are at Oshodi and Lagos Island during peak periods.

- 3 **Strategic Pricing**
A feasibility study on the BRT demonstrates potential viability of the system using a zonal fare structure of N20 per 5km of travel and this has proven to be highly competitive when compared with the lowest existing fares on small commercial buses with an added advantage of faster travel time.

- 4 **Competitor Analysis**
Focus Group Discussion (FGDs) revealed that passengers feel safer travelling by BRT as it provides comparable speed and reliability facilitated by the dedicated bus lanes as opposed to the Danfo and Molu buses. BRT also presents superior quality and comfortable vehicles compared to the poorly maintained commercial public transport options.

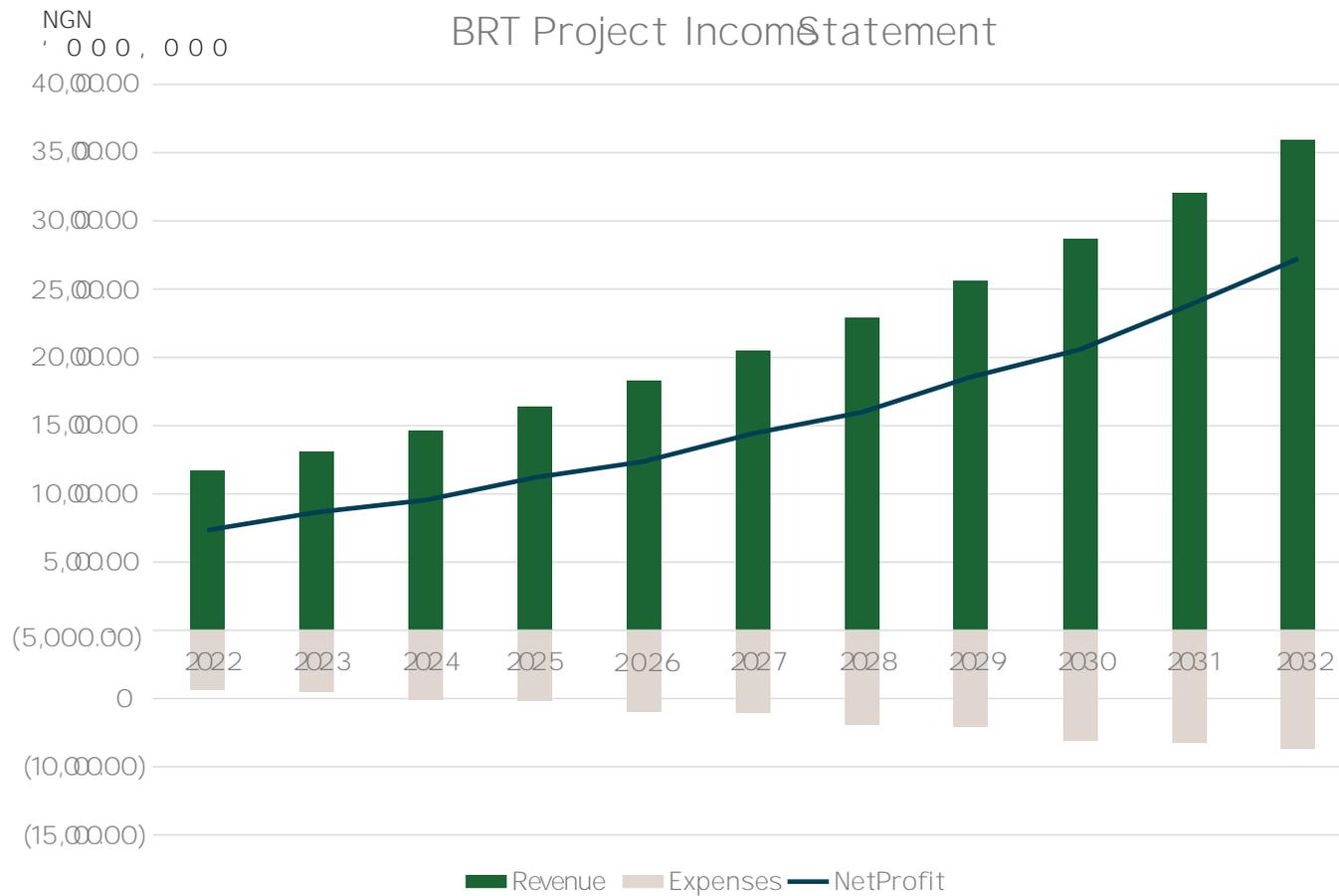
- 5 **Travel time**
The dedicated BRT lanes will facilitate quicker travel around Lagos.

Source: LAMATA (2017), GP Research



BRT Project Opportunity

The financial assessment depicts positive and attractive terms



Comments

The financial assessment depicts a constant increase in income over the ten year of projection

The EBITDA margins are healthy enough to ensure a good return on investment. Revenue can be boosted further through increased passenger volume, advertising and branding



BRT Project Opportunity

Economic Feasibility

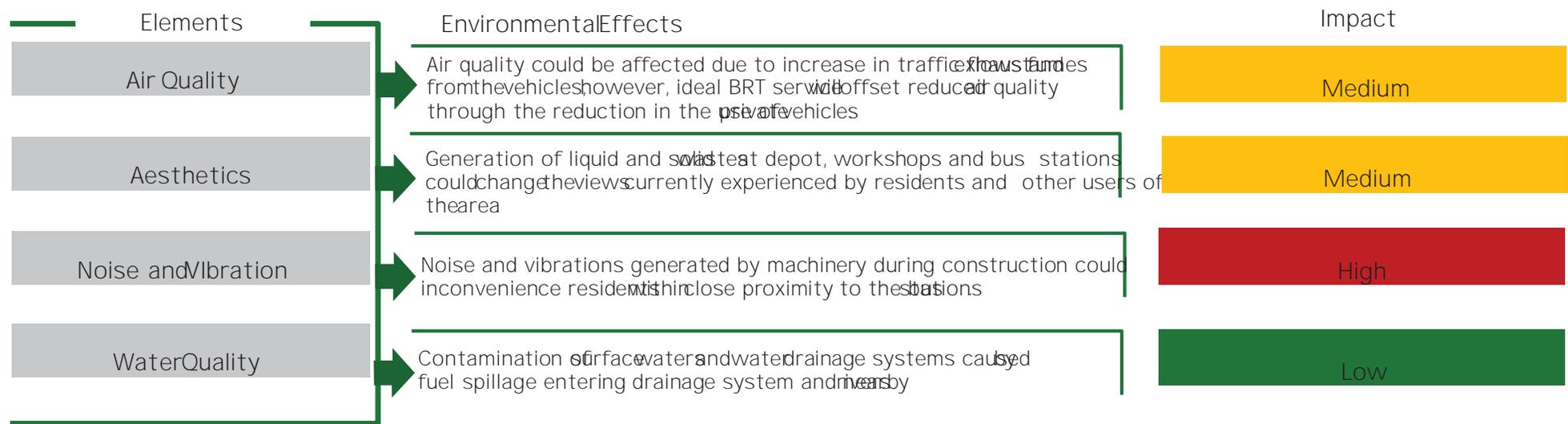
Indicators	NGN	USD
Equity Investment (50%)	41,009,349,620	134,456,884
Debt Financing (50%)	41,009,349,620	134,456,884
Return on Investment	9%	
Net Present Value (NPV)	20,364,735,715	66,769,625
Internal Rate of Return	16.8%	
Net Profit Margin	0% to 37.4%	
Cost to Income Ratio (CIR)	37%	
<p>Key Assumptions</p> <ul style="list-style-type: none"> 300 working days a year Demand growth is 8% per annum The fare will increase at 20% in 5 years Passenger demand is 104,000,000 a year Fare is based on current BRT rates of N100 per trip The main revenue drivers are patronage and branding/advertising Expenses increased annually by 15% Franchise fee is paid at 5% of annual revenue for 10 years 	<p>Socio-Economic Benefits of the Project</p> <ul style="list-style-type: none"> Employment generation Journey time saving for both private car passengers and public transport riders Changes in vehicle operating costs (private vehicles and public transit) Reduction of exposure to local air pollutants Road safety benefits (fatalities, injuries, property damage) 	



BRT Project Opportunity

The proposed project indicates minimal environmental impacts along the proposed route of operation

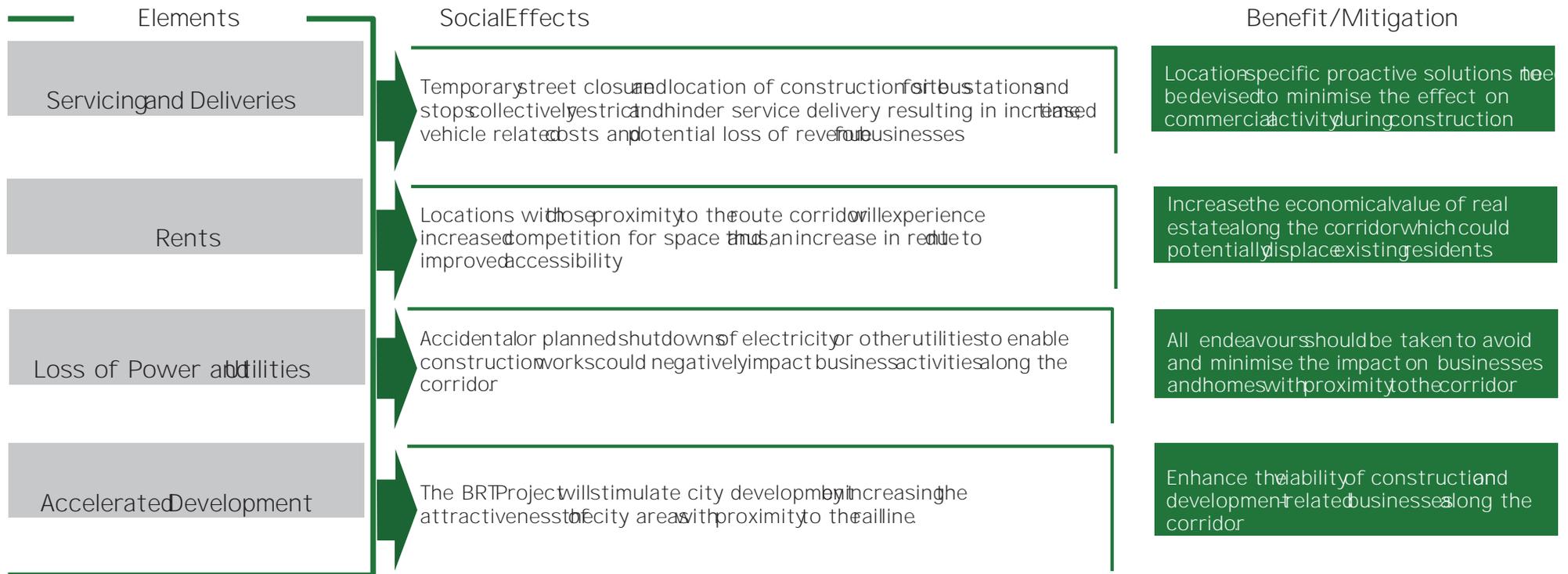
The Federal Ministry of Environment and Lagos State Environmental Protection Agency (LASEPA) have laws and guidelines that stipulate that transportation projects are environmentally friendly





BRT Project Opportunity

The BRT Project indicates positive and minor negative social effects on the city locations along the corridor



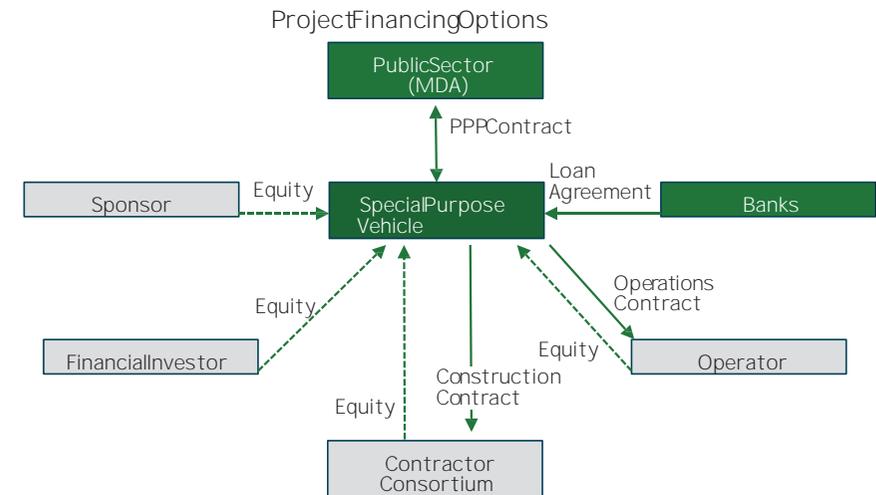


BRT Project Opportunity

The preferred public private option for the BRT project is BOT; however, potential investors can opt for another acceptable option

PPPOptions	Characteristics			
	Asset Ownership	Operation & Management	Capital Investment	Commercial Risk
Service 1-3 years	Public	Both	Public	Public
Management 3-8 years	Public	Private	Public	Public
Lease 5-10 years	Public	Private	Public	Private
Concession 10-30 years	Both	Private	Private	Private

Concession options	Characteristics				Financial Responsibility
	Asset Ownership	Design	Build	Operations and Management	
Design-Bid-Build	Public	Private by fee contract	Private by fee contract	Public	Public
Design-Build	Public	Private by fee contract	Private by fee contract	Public	Public
Build-Operate-Transfer	Public	Private by fee contract	Private by fee contract	Private by fee contract	Public
Design-Build-Finance-Operate	Public	Private by fee contract	Private by fee contract	Private by fee contract	Public, Public/Private or Private
Build-Own-Operate	Private	Private by contract	Private by contract	Private by contract	Private by Contract

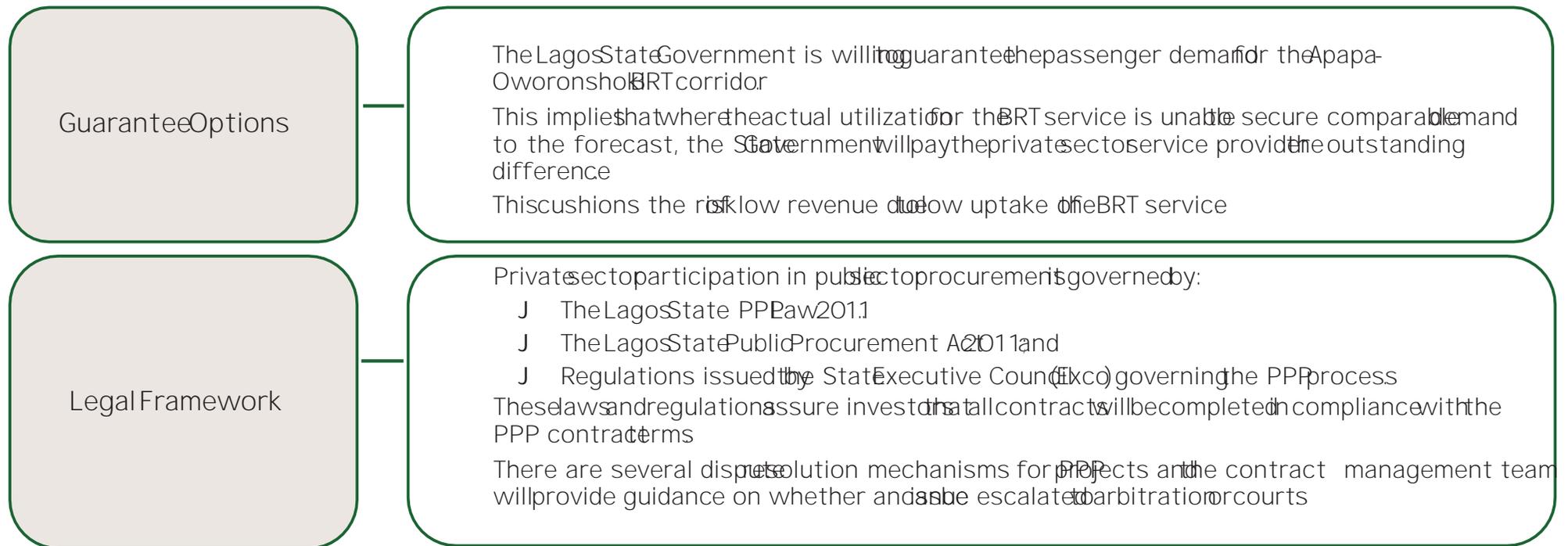


A common approach to financing PPP projects is to structure them as a Special Purpose Vehicle. This way projects are safeguarded against complex and ever-changing risks. SPVs receive seed money financed with debt and equity, which can be recovered as development costs from the first drawdown of the concession. The PPP company then approaches the market for additional financing. Investors are asked to only consider the bankability of the PPP company, which was created for the project. Term of investment is limited to the concession period. The PPP company may be dissolved once the project is completed and the concession reverts to the public sector. In the case of the BRT project, Eco Bank provided funding of N1 billion to procure 100 buses and invested N4.5 billion into the BRT infrastructure.



BRT Project Opportunity

The Lagos State Government provides investors with favourable conditions to support private sector participation





BRT Project Opportunity

Infrastructure has the largest impact on the project of which can be mitigated by a competent planning team

Areas	Key Risk	Impact	Likelihood	Mitigation
1 Government Policy	Change in government regulation or policy impacts on the investment private sector	Financial	Medium	Agreements should be executed that protect investor rights and offer compensation where change of policy is unavoidable
2 Competition	Difficulty competing with small minibuses drivers (danfo).	Financial	Medium	Enforce exclusion zone and ensure that minibuses are being used in feeder services to the BRT routes
3 Fares	Low uptake of the BRT service due to its unaffordability by the majority of the population	Financial	Low	Extensive market research has been conducted on the purchasing power of residents to ensure competitive pricing of the BRT service and also make provision for variable ticket pricing
4 Corridor selection	A low demand corridor in a peripheral location which does not provide connections to high demand areas	Financial	Medium	Excellent design and planning team with successful experience in BRT implementation in other cities
5 Infrastructure	Poor BRT infrastructure poses the most serious risk as fixing the problem would partially or fully demolishing the BRT system	Financial Reputational	Low	Allow time for refinement of BRT design to revise all aspects of the project
5 Currency	Fluctuation in the value of the Naira over the duration of the project	Financial	Medium	The investor may protect foreign capital by hedging or benchmarking the exchange rate of the Central Bank of Nigeria; which is more dependable than the commercial bank rates



BRT Project Opportunity

In conclusion,...

<p>Investment Requirement</p>	<ul style="list-style-type: none"> § The project will require 280 buses to satisfy the demand of 340,000 passengers § The human resource requirement for this project has been estimated at 15,000 drivers and 615 customer service personnel to handle ticketing and customer interface § The requirement for the investment is NGN 99 billion which covers the start-up and the operating expenses for the first operating year
<p>Investment Purpose</p>	<ul style="list-style-type: none"> § The purpose of the investment is to improve the efficiency of transportation in the Lagos Metropolis § The Apapa-Oworonsho BRT service is part of the intermodal State Strategic Transportation Master Plan that is aimed at transforming the transport sector beyond its current challenges § The investment will facilitate the delivery of BRT service to serve commuters on the Apapa-Oworonsho corridor and improve the quality of transport services in Lagos
<p>Opportunity Assessment</p>	<ul style="list-style-type: none"> § A review of the high level technical, commercial and financial feasibility assessments of the project depicts the attractiveness of the investment § The case for investment demonstrates the potential for private operators to run BRT service and the financial viability of the net profits to cover the operating costs and management costs § The project also presents societal benefits of the proposed journey time reductions, cost savings and the introduction of a more efficient public transport operation
<p>Management Structure</p>	<ul style="list-style-type: none"> § The private public partnership preferred Build-Operate-Transfer (BOT) concession where the public sector maintains ownership of the assets and the private sector handles the operations and maintenance of the BRT on a fee contract § The private sector will manage, operate and maintain infrastructure to standards and outputs specified by the State Government and LAMATA § The project will be financed by fees which will be charged to the consumers



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5. Green Line Rail Project Opportunity

The 6.8 km Green Line Project is to build and operate a modern, fast and reliable rail-based commuter service between Lekki Trade Zone and Marina, with 16 stations, as well as a direct link and station at the proposed Airport at Lekki.

The principal merit of this project is that it will reduce the severe traffic congestion in the Marina-Lekki Corridor by encouraging the use of public transport. Investors are invited to provide rolling stocks to support delivery of the project. The public-private partnership model for this project will be decided following negotiations and agreements with AMATA.



Green Line Rail Project Opportunity

The Green Line Project is a 68 km rail system that will begin at Marina and terminate at the Lekki Free Trade Zone

Overview of the Green Line Project



The Lagos State Government intends to create an urban rail transit system in order to reduce traffic congestion and travel times as well as improve the transportation system in Lagos Metropolis

The 68km Green Line rail network route to be built and operated as a modern, fast and reliable rail-based commuters service between Lekki Free Trade Zone and Marina

The Green Line is a direct link to the proposed Lekki International Airport and comprises 10 stations between Lekki Free Trade Zone and Marina

This rail network will stimulate economic growth through business tourism using the link between the Airport and the Free Trade Zone in Lekki

The Green Line project is part of the Lagos State Strategic Transport Master Plan and as such will stimulate accelerated economic growth and increase infrastructure investment

Project Sponsor



Lagos State Government

The Lagos State Government is championing the Green Line Rail Project and is committed to the development of the infrastructure required for this project

The project will be executed through a concessionaire and Memorandum of Understanding (MOU) between the State Government and the Concessionaire will provide the terms and conditions governing the project

The Lagos State Government will indicate her commitment by:

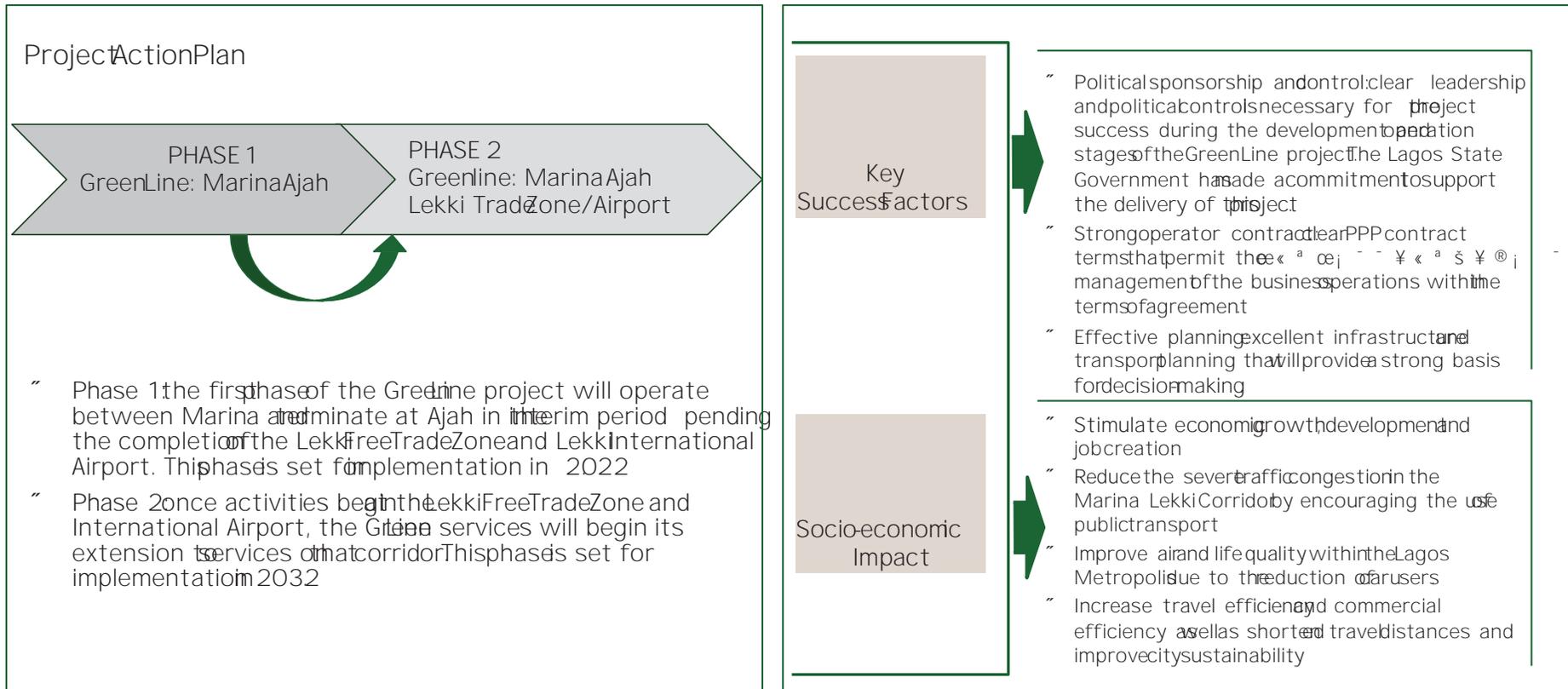
- o securing the Right of Way for the project route
- o providing statutory permits and police security during construction and operations
- o approving deployment to site and operations system
- o providing tax and duty incentives to investors
- o enacting legislations for the operations and maintenance of the system

Source: LAMATA (2017) GP Research



Green Line Rail Project Opportunity

The Green Line project will be executed in two phases: Marina-Aja and Marina-Aja - Lekki Free Trade Zone

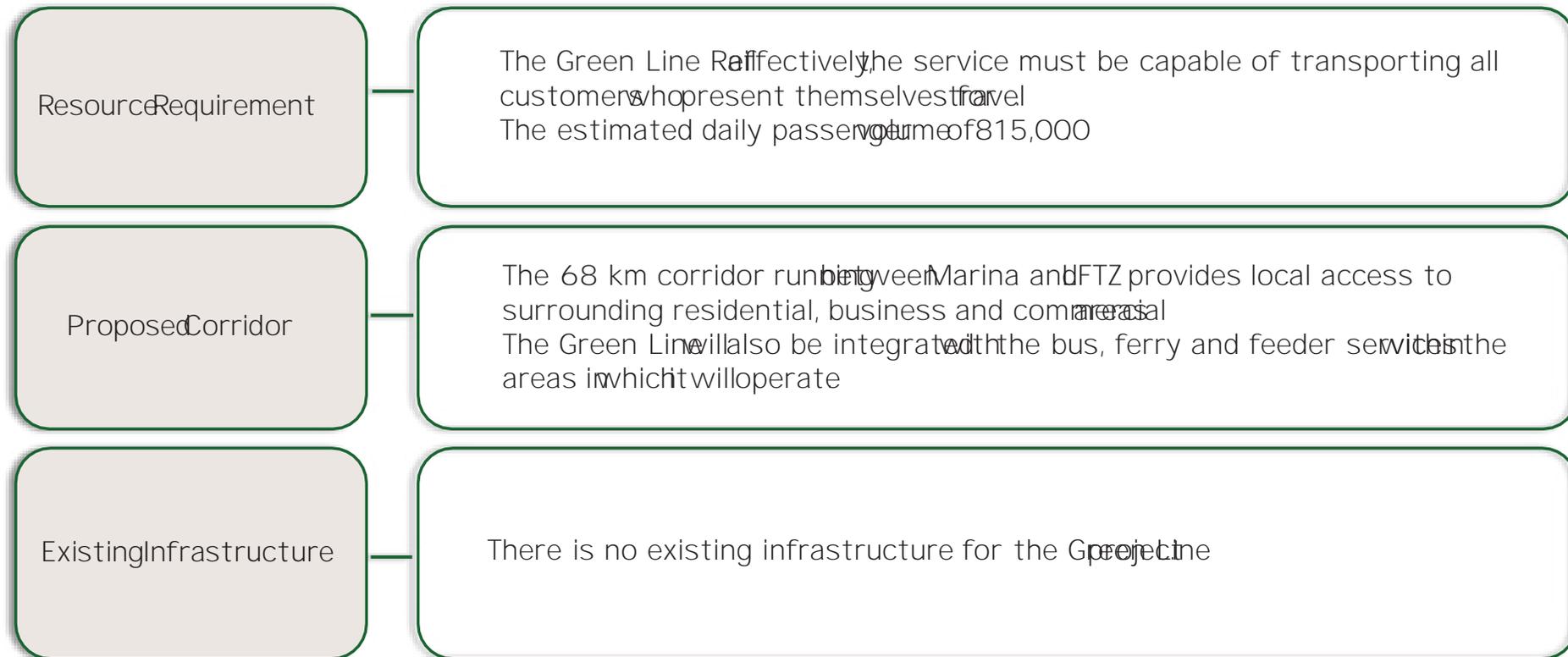


Source: LAMATA (2017) PPP Research



Green Line Rail Project Opportunity

The success of the proposed project depends on the availability of requisite resources and infrastructure





Green Line Rail Project Opportunity

The Green Line Rail project proposes lower travel times compared to existing transportation options

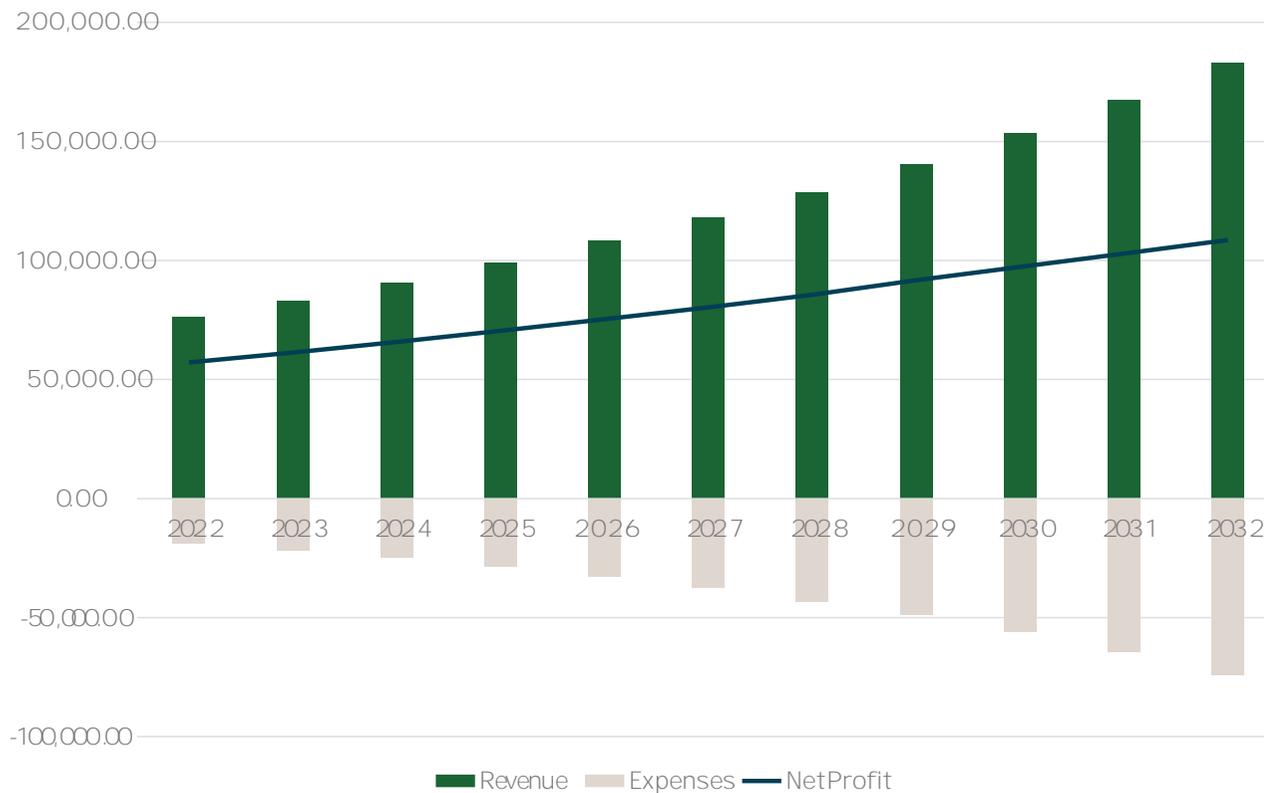
- 1 Resource Assessment**
The trains selected for the Green Line operations must be efficient, easy to maintain and energy efficient. The type of train proposed for this project are Electric Multiple Units (EMUs).
- 2 Demand Assessment**
The large and growing population within Lagos State and the high volume of people currently using Lagos public transport in its poor conditions makes the proposed Green Line very attractive.
- 3 Strategic Pricing**
The proposed fare for the Green Line service is currently set at NGN 460 (USD 1.25). Although the fares of existing public sector options are far below the suggested fares of the Green Line, the Green Line provides an added advantage of fast travel times by eliminating the possibility of experiencing motor traffic congestion and therefore command higher pricing than other forms of transportation.
- 4 Competitor Analysis**
The existing public transportation options such as the BRT services offer competing services to consumers. However, the Green Line provides incomparable speed and reliability facilitated by congestion-free rail travel.



Green Line Rail Project Opportunity

The financial assessment depicts positive and attractive terms

Green Line Rail Income Statement



Comments

The Green Line Project will experience a 7% growth rate annually which is favourable to investors and depicts healthy business growth

The EBITDA margins are healthy enough to ensure a return on investment

Revenue can be boosted further through increased passenger volume, advertising and branding



Green Line Rail Project Opportunity

Economic Feasibility

Indicators	NGN	USD
Equity Investment (50%)	231,144,250,000	757,850,000
Debt Financing (50%)	231,144,500,000	757,850,000
Return on Investment	13%	
Net Present Value (NPV)	685,558,349	224,785,515
Internal Rate of Return	17%	
Net Profit Margin Range	36% to 39%	
Cost to Income Ratio (CIR)	25%	

Key Assumptions

300 working days a year and 288 operated cycles a day
 Rolling stock Electric Motor Unit (EMU) will be purchased outright
 Estimated passenger volume 15,000 per day
 Main revenue drivers include ticket fares and advertisement
 Revenues will increase at growth rate of 7% annually
 Fare rates will increase by 20% every 5 years
 Expenses increase by inflation rate of 5% biannually
 Franchise fee is 5% of the annual revenue

Socio-Economic Benefits of the Project

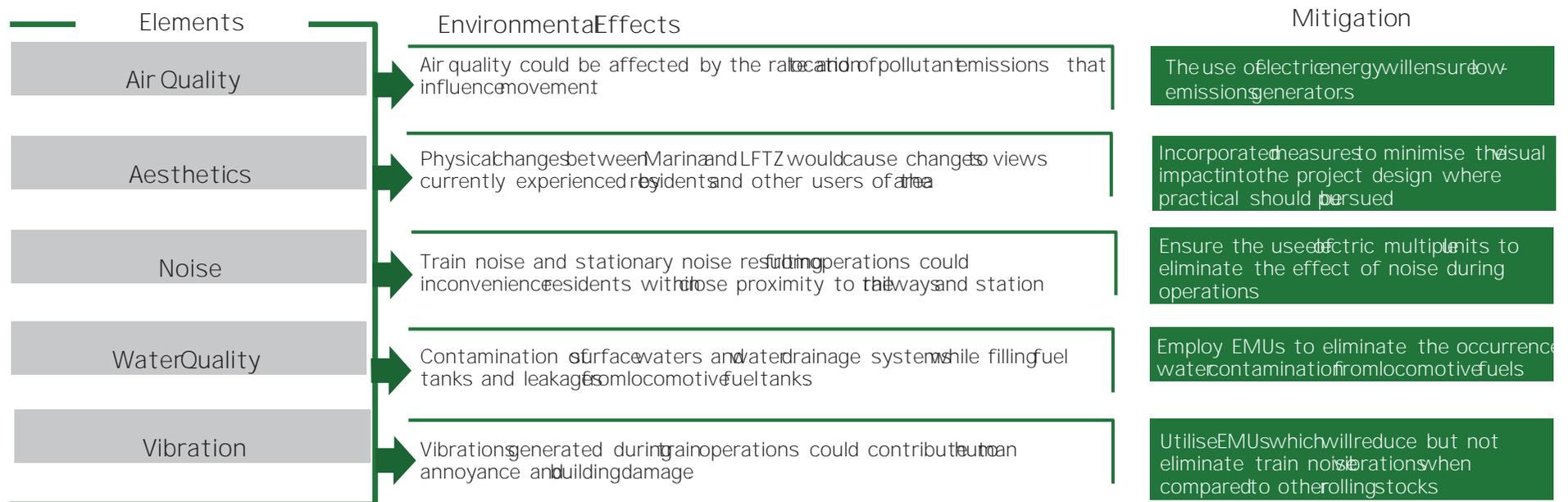
Increased transit ridership and reduced auto ridership
 Increase in the use of public transportation
 Economic efficiency
 Employment generation
 Stimulate the revival of communities proximity to the rail.



Green Line Rail Project Opportunity

The proposed project indicates minimal environmental impacts along the proposed route of operation due to the use of EMUs

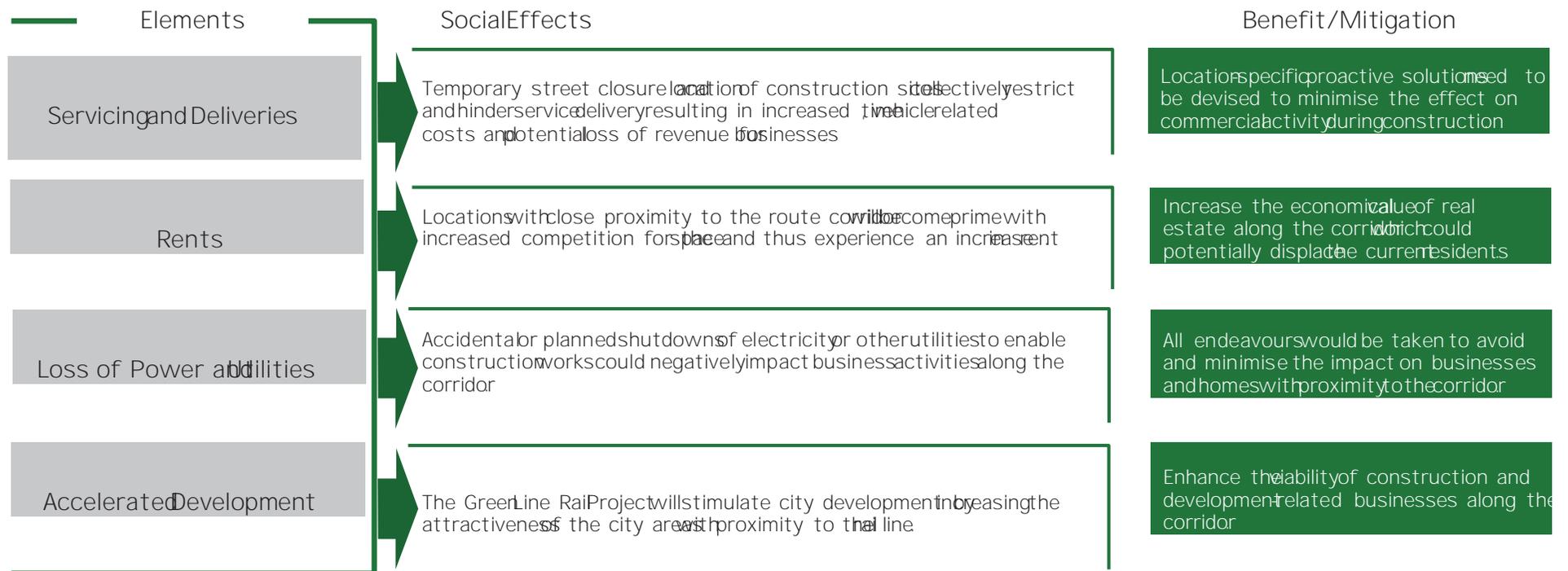
The Federal Ministry of Environment and Lagos State Environmental Protection Agency (LASEPA) Agency and guidelines that stipulate that all transportation projects are environmentally friendly





Green Line Rail Project Opportunity

The Green Line Rail Project indicates positive and minimal negative social effects on the city locations along the corridor



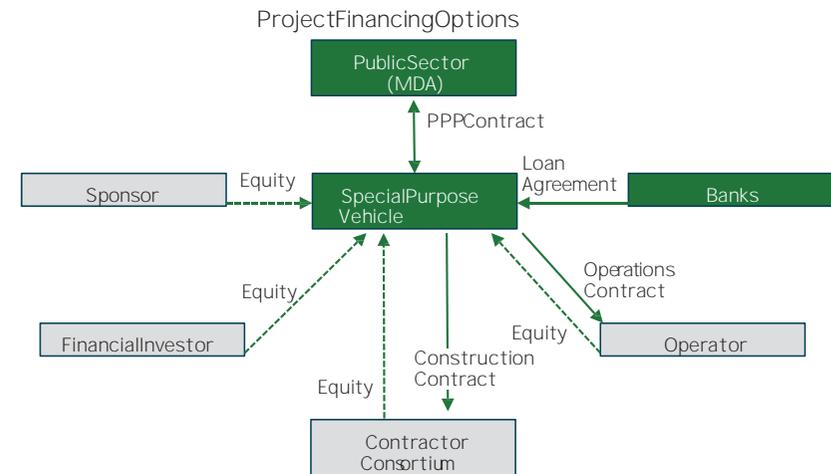


Green Line Rail Project Opportunity

The preferred public private option for the BRT project is BOT; however, potential investors can opt for another accepted option

PPP Options	Characteristics			
	Asset Ownership	Operations & Management	Capital Investment	Commercial Risk
Service 1-3 years	Public	Both	Public	Public
Management 3-8 years	Public	Private	Public	Public
Lease 5-10 years	Public	Private	Public	Private
Concession 10-30 years	Both	Private	Private	Private

Concession options	Characteristics				Financial Responsibility
	Asset Ownership	Design	Build	Operations and Management	
Design-Bid-Build	Public	Private by fee contract	Private by fee contract	Public	Public
Design-Build	Public	Private by fee contract	Private by fee contract	Public	Public
Build-Operate-Transfer	Public	Private by fee contract	Private by fee contract	Private by fee contract	Public
Design-Build-Finance-Operate	Public	Private by fee contract	Private by fee contract	Private by fee contract	Public, Public/Private or Private
Build-Own-Operate	Private	Private by contract	Private by contract	Private by contract	Private by Contract



A common approach to financing PPP projects is to structure them as a Special Purpose Vehicle. This way projects are safeguarded against complex and ever-changing risks. SPVs receive seed money financed with debt and/or equity, which can be recovered as development costs from the first drawdown of the loan. The PPP company then approaches the market for additional financing. Investors are asked to only consider the bankability of which the PPP company was created. Term of investment is limited as the PPP company may be dissolved once the project is completed and the concession reverts to the authority.



Green Line Rail Project Opportunity

The Lagos State Government provides investors with favourable conditions to support private sector participation

Guarantee Options

Lagos State Government is offering a guarantee on passenger numbers to cover any shortfall that may arise from a shortage of uptake
The State Government has put in place various policies and initiatives that will ensure an enabling environment for business

Legal Framework

Private sector participation in public sector procurements governed by:

- J The Lagos State PPP Law 2011
- J The Lagos State Public Procurement Act 2011 and
- J Regulations issued by the State Executive Council (Excom) governing the PPP process

These laws and regulations assure investors that all contracts will be completed in compliance with the PPP contract terms

There are several dispute resolution mechanisms for PPP and the contract management team will provide guidance on whether an issue can be escalated to arbitration and judicial courts



Green Line Rail Project Opportunity

The risk assessment of the project shows that the Green Line Rail project poses medium risks

Areas	Key Risk	Impact	Likelihood	Mitigation
1 Government Policy	Change in government regulation or policy that impacts on the investment in private sector in public projects	Financial	Medium	Agreements should be executed that protect investors rights and offer compensation where change in policy is unavoidable
2 Fares	Demand and tariff levels may not be sufficient to cover costs of operations	Financial	Low	Perform due diligence to obtain sound traffic studies and use this as the basis for forecasting. The State Government is also offering a guarantee on passenger numbers that it covers the shortfall in the event of low demand
3 Corridor selection	A low demand corridor in a peripheral location which does not provide connections to high demand areas	Financial	Medium	Utilise an excellent design and planning team with successful experience in rail or similar implementation in the cities
4 Infrastructure	Poor rail infrastructure poses the most serious risk as fixing the problem would entail partially or fully demolishing or shutting down the rail system	Financial & Reputational	Low	Allow time to refine the design to revise all aspects of the project to ensure excellent infrastructure planning and design
5 Currency	Fluctuations in the value of the Naira over the duration of the project could make project costs increase beyond original estimates	Financial	Medium	The investor may protect foreign capital by hedging or benchmarking the exchange rate to convert foreign exchange to Nigeria



Green Line Rail Project Opportunity In Conclusion ...

Investment Requirement	<ul style="list-style-type: none">§ The requirement for the investment is N462 billion which covers the upstart and the operating expenses for the first operating year§ The operating expenses include costs of operations, maintenance, advertising, marketing and labour costs
Investment Purpose	<ul style="list-style-type: none">§ The purpose of the investment is to improve the efficiency of transportation in the Lagos Metropolis§ The Green Line Urban Rail is part of the intermodal Lagos State Strategic Transportation Master Plan that is transforming the Lagos transport sector beyond its current challenges§ The investment will facilitate the delivery of the Green Line Urban Rail to serve the commuters between Marina and Ikeja Free Trade Zone and will improve the quality of transport services in Lagos
Opportunity Assessment	<ul style="list-style-type: none">§ The high-level technical, commercial and financial feasibility assessments of the project depict the attractiveness of the investment§ The case for investment demonstrates the potential for private operators to run the Green Line service and the financial viability of the net profits cover the operating and management costs§ The project also presents societal benefits of the project journey time reduction, cost savings, the introduction of a more efficient public transport operation and urban regeneration
Management Structure	<ul style="list-style-type: none">§ The Lagos State Government is open to discuss management structures and partnerships under the Lagos State PPP Laws



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5. Purple Line Rail Project Opportunity

This 85.79 km Purple Line Rail will be built and operated as a modern, fast and reliable rail-based commuter service with 16 stations.

The Purple Line Rail Project proposes reduced traffic congestion providing a non-motorised transportation option to commuters. Investors are invited to provide rolling stocks to support the project. The public-private partnership model for this project will be decided upon following negotiations and agreements with AATA.



Purple Line Rail Project Opportunity

The Purple Line Project is an 85.79 km rail system

Overview of the Purple Line Project



The Lagos State Government intends to create an urban rail transit system in order to reduce traffic congestion and travel times and improve the transportation system in the Lagos Metropolis

The 85.79 km Purple Line rail network route is to be built and operated as a modern, fast and reliable rail-based commuters service and comprises 16 stations

The Purple Line project is part of the Lagos State Strategic Transport Master Plan and as such will stimulate accelerated economic growth and increased infrastructure investment

The Purple Line will also be integrated with the bus, ferry and feeder services within the areas in which it will operate

Project Sponsor



Lagos State Government

The Lagos State Government is the champion of the Purple Line Rail Project and is committed to the construction of the infrastructure and operations

The project will be executed through a concessionaire and a Memorandum of Understanding (MOU) between the State Government and the selected concessionaire will provide the terms and conditions governing the project

The State Government will indicate her commitment by:

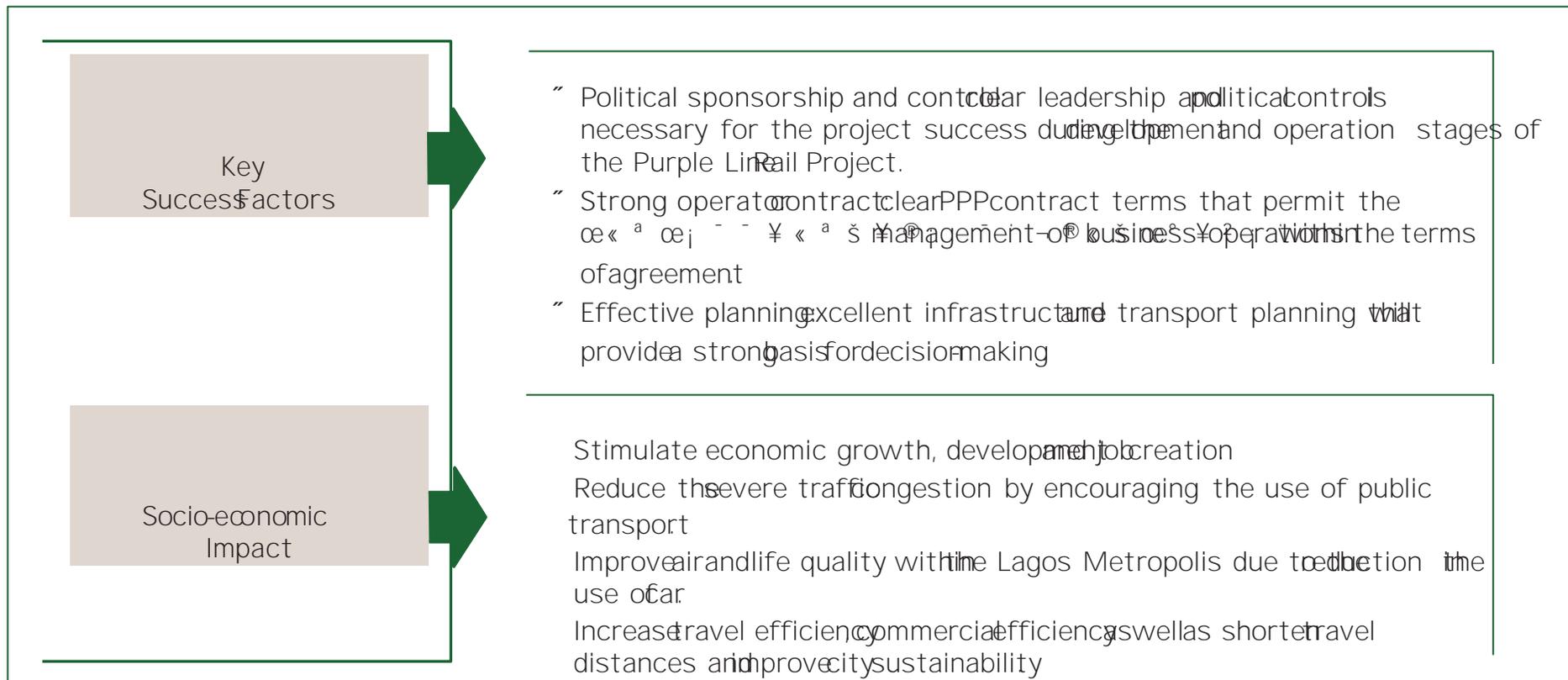
- o securing the right of way for the project route
- o providing statutory permits and police security during construction and operations
- o approving deployment to site and operations of the system
- o providing tax and duty incentives to investors
- o enacting legislation for the operations and usage of the system

Source: LAMATA (2017) AGP Research



Purple Line Rail Project Opportunity

The long-term nature of the Purple Line project will provide long-standing benefits to potential investors

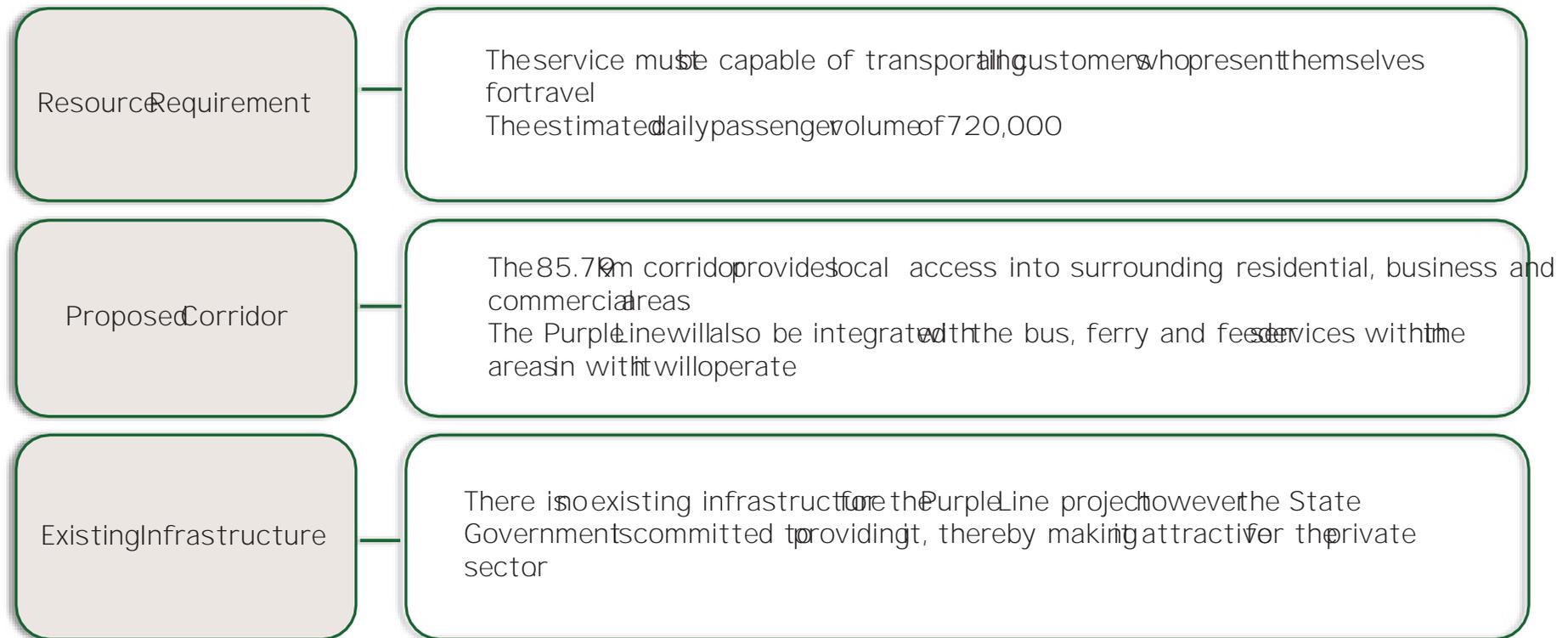


Source: LAMATA (2017) AGP Research



Purple Line Rail Project Opportunity

The success of the proposed project is dependent on the availability of necessary resources and infrastructure





Purple Line Rail Project Opportunity

The Purple Line Rail project proposes lower travel times compared to existing transportation options

- 1 Resource Assessment**
The trains selected for Purple Line operations must be easy to maintain and efficient. The type of train proposed for this project are the Electric Multiple Unit (EMU)

- 2 Demand Assessment**
The high volume of people currently using Lagos public transport in its poor conditions makes the Purple Line very attractive.

- 3 Strategic Pricing**
The proposed fare for Purple Line service is suggested at NGN 555 (USD1.55). Although the fare is below public sector options, it is far below the suggested fares for the service, it provides an added advantage of faster travel times by eliminating the possibility of experiencing motor traffic congestion.

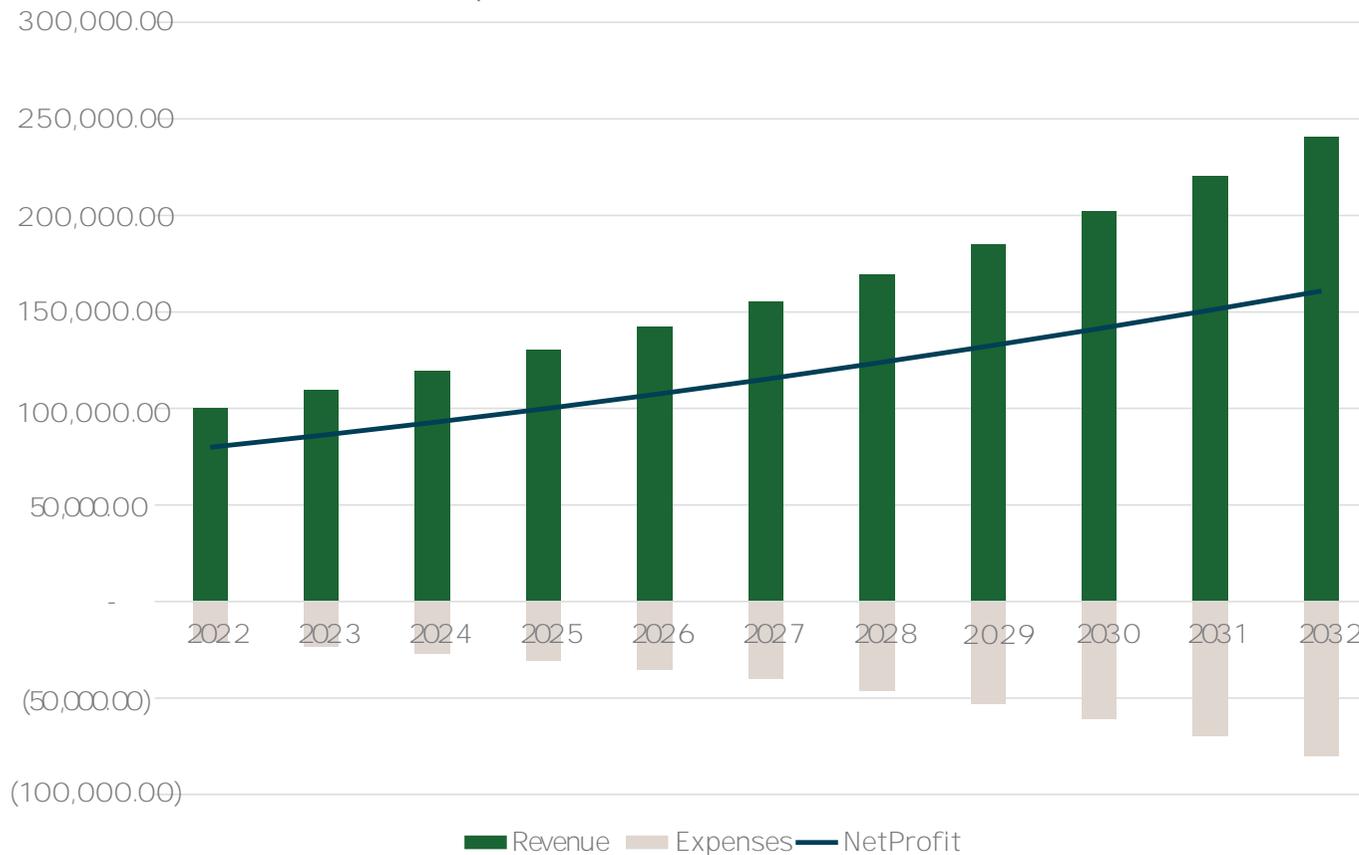
- 4 Competitor Analysis**
The existing public transportation options such as the BRT services offer competing services at lower rates to consumers. However, the Purple Line provides incomparable speed and reliability facilitated by congestion-free rail travel.



Purple Line Rail Project Opportunity

The financial assessment depicts positive and attractive terms

Purple Line Rail Income Statement



Comments

The Purple Line Project will experience a 5% growth rate annually which is favourable to investors as it depicts healthy business growth

The EBITDA margin is healthy enough to ensure a return on investment

Revenue can be boosted further through increased passenger volume, advertising and branding



Purple Line Rail Project Opportunity

Economic Feasibility

Indicators	NGN	USD
Equity Investment(x%)	316,574,750,000	1,037,500,000
Debt Financing(x%)	316,574,750,000	1,037,500,000
Return on Investment	13%	
Net Present Value(NPV)	115,054,593,390	377,228.5
Internal Rate of Return	17.6%	
Net Profit Margin Range	41% to 43%	
Cost to Income Ratio(CIR)	20%	
Key Assumptions 300 working days a year and 288 operates cycles a day Rolling stock Electric Motor Unit(EMU) and will be purchased outrightly Estimated daily passenger volume 720,000 per day Main revenue drivers include ticket fares and advertisement Revenues will increase at growth rate 7% annually Fare rates will increase by 20% every 5 years Expenses increase by inflation rate of 5% biannually Franchise fees 5% of the annual revenue	Socio-Economic Benefits of the Project Increased transit ridership and reduced automobile ridership Increase in the use of public transportation Economic efficiency Employment generation Stimulate the revival of communities proximity to the rail	

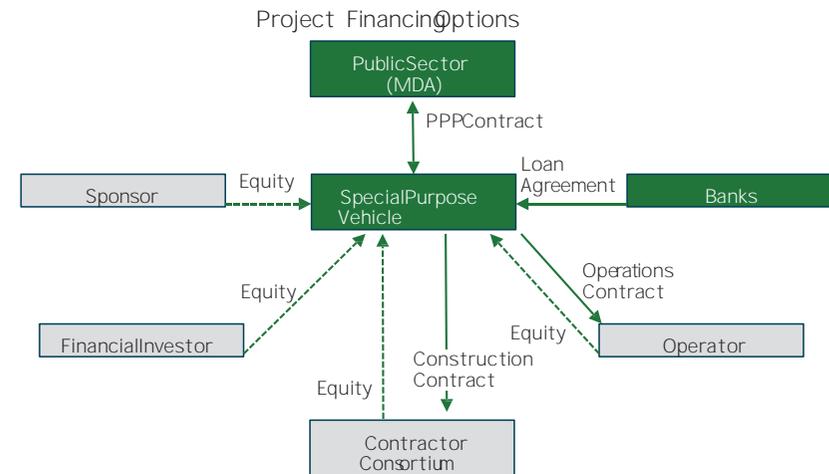


Purple Line Rail Project Opportunity

The preferred public private option for the BRT project is BOT; however, potential investors can opt for another accepted option

PPP Options	Characteristics			
	Asset Ownership	Operation & Management	Capital Investment	Commercial Risk
Service 1-3 years	Public	Both	Public	Public
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Concession options	Characteristics				Financial Responsibility
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Design-Bid-Build	Public	Private by fee contract	Private by fee contract	Public	Public
Design-Build	Public	Private by fee contract	Private by fee contract	Public	Public
Build-Operate-Transfer	Public	Private by fee contract	Private by fee contract	Private by fee contract	Public
Design-Build-Finance-Operate	Public	Private by fee contract	Private by fee contract	Private by fee contract	Public, Public/Private or Private
Build-Own-Operate	Private	Private by contract	Private by contract	Private by contract	Private by Contract



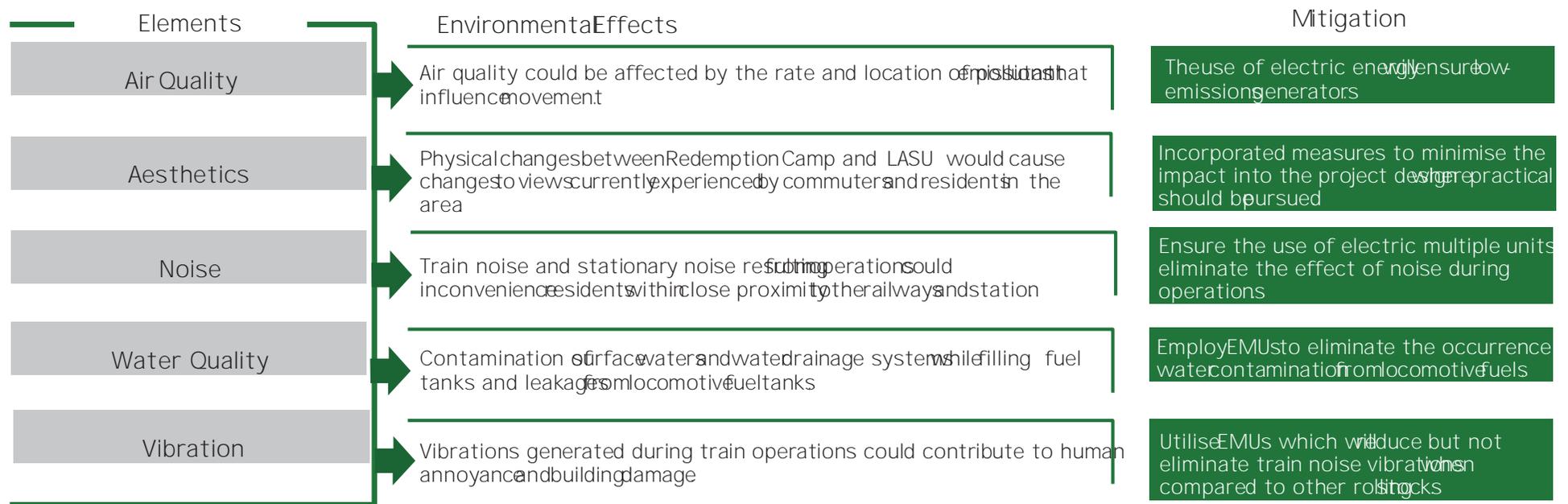
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Purple Line Rail Project Opportunity

The proposed project indicates minimal environmental impacts along the operating route

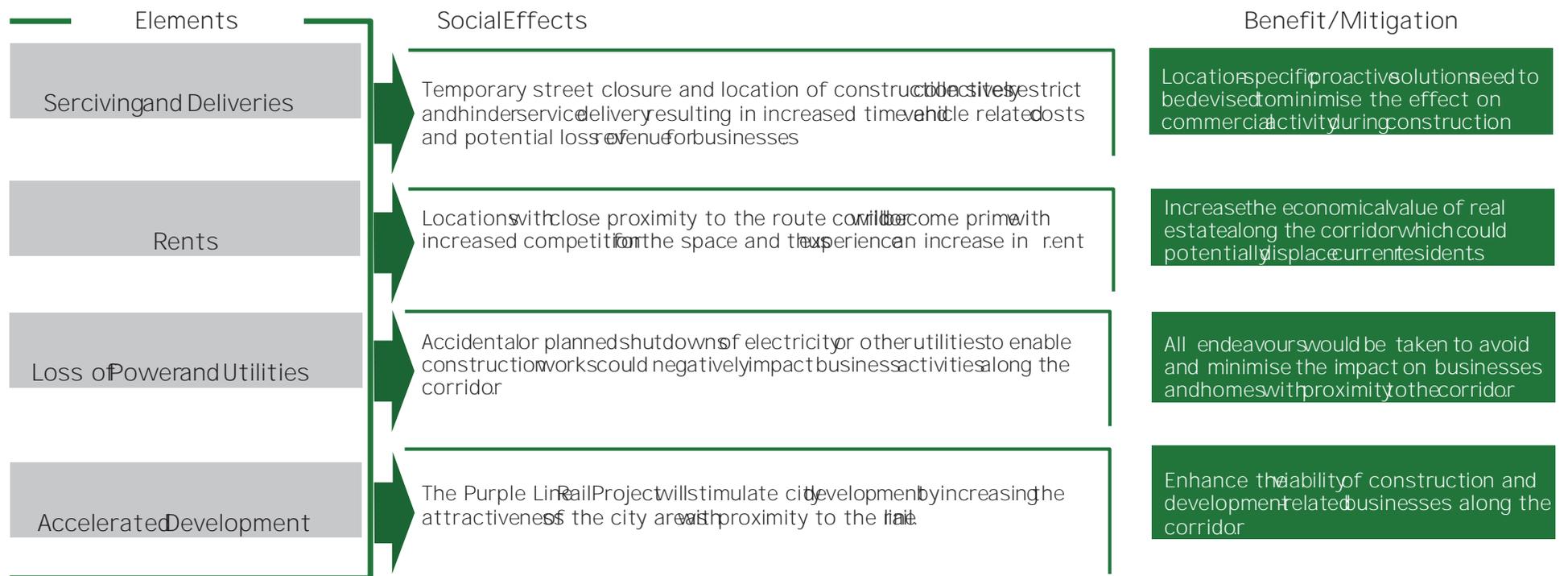
The Federal Ministry of Environment and Lagos State Environmental Protection Agency (LASEPA) and guidelines that stipulate that transportation projects are environmentally friendly





Purple Line Rail Project Opportunity

The Purple Line Rail Project indicates positive and minimal negative social effects on the city locations along the corridor





Purple Line Rail Project Opportunity

The Lagos State Government provides investors with favourable conditions to support private sector participation





Purple Line Rail Project Opportunity

The risk assessment of the project shows that the Purple Line Rail project poses medium risks

Areas	Key Risk	Impact	Likelihood	Mitigation
1 Government Policy	Change in government regulatory policy that impacts on the investment by private sector in public projects	Financial	Medium	Agreements should be executed that protect investor rights and offer compensation in the event of a change in policy is unavoidable
2 Fares	Demand and tariff levels may not be sufficient to cover the cost of operations	Financial	Low	Perform due diligence to obtain sound traffic studies and use this as the basis for forecasting. The State Government is also offering a guarantee on passenger numbers such that it covers the shortfall in the event of low demand
3 Corridor selection	A low demand corridor in a peripheral location which does not provide connections to higher demand areas	Financial	Medium	Utilise an excellent design and planning team with successful experience in rail or similar implementation in other countries
4 Infrastructure	Poor rail infrastructure pose the most serious risk as fixing the problem would entail partially or fully demolishing and shutting down the rail system	Financial & Reputational	Low	Allow time to refine the rail design to revise all aspects of the project as needed to ensure excellent infrastructure planning design
5 Currency	Fluctuations in the value of the Naira over the duration of the project could make project costs increase beyond original estimates	Financial	Medium	The investor may protect foreign capital by hedging or benchmarking the exchange rate to convert foreign exchange to Nigeria



Purple Line Rail Project Opportunity In Conclusion ...

Investment Requirement	<ul style="list-style-type: none"> § The requirement for the investment is NGN 633 billion which covers start up costs and the operating expenses for the first operating year. § The operating expenses include the costs of operations, maintenance, advertising and marketing and labour costs
Investment Purpose	<ul style="list-style-type: none"> § The purpose of the investment is to improve the efficiency of transportation in the Lagos Metropolis § The Purple Line Urban Rail is part of the Lagos State Strategic Transportation Master Plan aimed at transforming the Lagos transport sector beyond its current challenges § The investment will facilitate the delivery of the Purple Line Urban Rail to serve the commuters in order to improve the quality of transport service in Lagos
Opportunity Assessment	<ul style="list-style-type: none"> § A review of the high-level technical, commercial and financial feasibility assessments depicts the attractiveness of the investment § The case for investment demonstrates the potential for private operators to run the Purple Line service and the financial viability to generate profits to cover the operating costs and management costs § The project also presents societal benefits such as journey time reduction, cost savings, the introduction of more efficient public transportation and urban regeneration
Management Structure	<ul style="list-style-type: none"> § Lagos State Government and LAMATA are to discuss management structures and partnerships acceptable to Lagos State PPP laws



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6. Investment Process

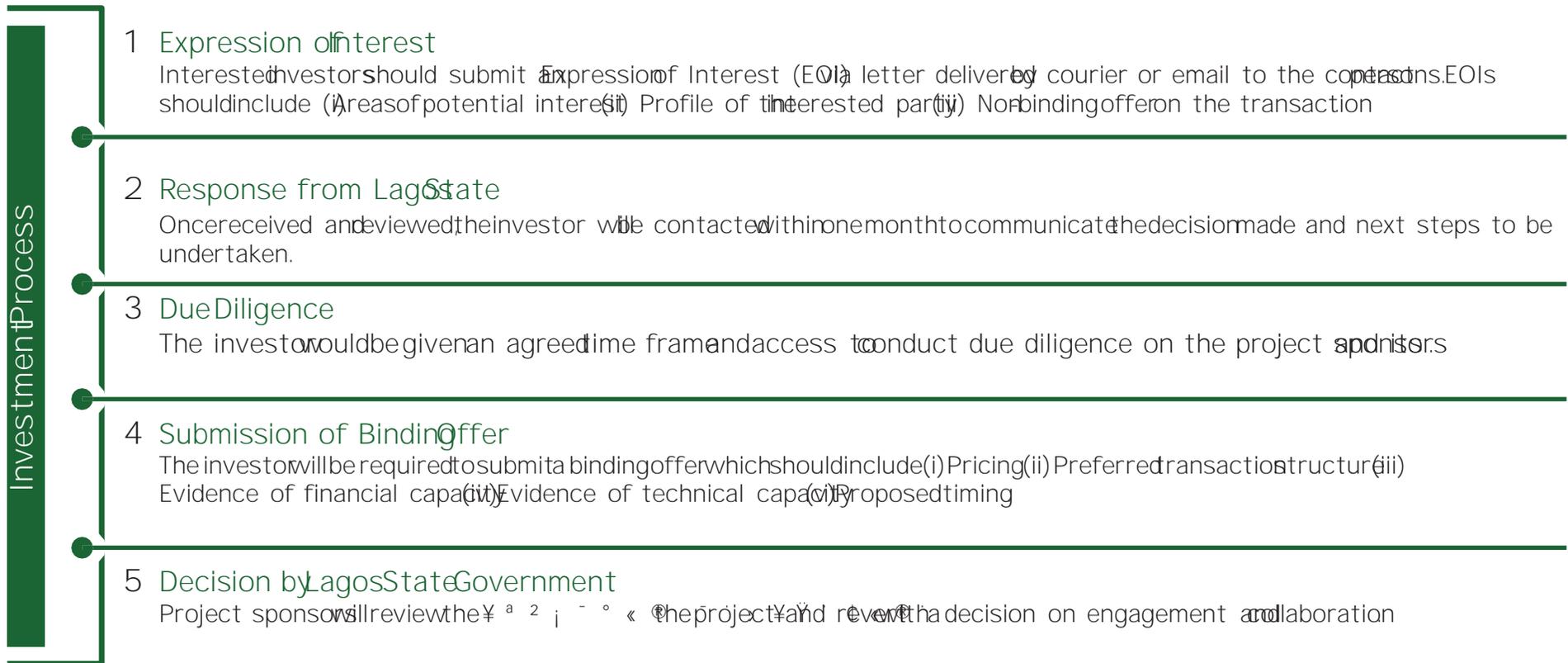
The Investment Process for the Lagos State transportation projects will involve five phases:

1. Expression of Interest
2. Response from Lagos
3. State Due Diligence
4. Submission
5. Internal Review



Investment Process

Investing in any of the three transportation projects will involve a simple process with five stages





Investment Process Disclaimer

The bidder expressly acknowledges and agrees that the information in this investment brochure has been provided by the promoter to allow the bidder to conduct its own enquiries in order to independently assess a potential investment in Lagos State and does not constitute a warranty in relation to any binding transaction or contract.

Cited performance may not be indicative of future results. Therefore an investor should not assume that the actual performance of a specific investment will be equal to corresponding cited performance. Decisions should be made with respect to specific information obtained from such investment and independently analysed by the investor.



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7. Contact Details

We very much look forward to hearing from you.

For further information or to express interest, kindly contact the:
Office of Overseas Affairs & Investment (Lagos Global)
Lagos Metropolitan Area Transport Authority (LAMATA)



Contact Details



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