POLYETHYLENE TEREPHTHALATE [PET] RECYCLING AND MUNICIPAL SOLID WASTE [MSW] TREATMENT PROJECT INFORMATION MEMORANDUM

NOVEMBER 2022

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EXECUTIVE SUMMARY

- At 0.95kg/capita/day, Lagos State with a population estimated at 21 million in 2017 generates approximately 19,950 tonnes of Municipal Solid Waste [MSW] per day;

- Lagos State MSW composition i.e. Organic, Paper/Card-Board, Plastic, Glass, Metal and Others in percentage are 62.6%; 10.7%; 4.2%; 2.5%; 2.2% and 19.7% with a collection rate of 95%;

- This presents a massive opportunity that can be harnessed for Waste to Wealth and Waste to Energy thus ensure the attainment of Sustainable Development Goal [SDG] 12 of Responsible Consumption and Production by 2030 to reduce the degradation of Earth's natural environment;

- It is on this premise that the project sponsor and developer is seeking collaboration with market and sector specific investors, multilateral and development finance institutions to develop a 100 tonnes/ day Polyethylene Terephthalate [PET] recycling plant in Phase I and a 160 tonnes/day MSW treatment plant in Phase II in Lagos State. The project has been configured to produce 16,800 tonnes of Resins and 3,600 tonnes of Flakes in Year-1 at 80% capacity factor and 18,900 tonnes of Resin and 4,050 tonnes of Flakes in Year-4 at 90% capacity factor by processing 24,000 tonnes and 27,000 tonnes of PET in Year-1 and Year-4 onwards respectively;

- For an initial capital outlay of USD 150 million and an annual operations, maintenance and management cost inclusive of feedstock of USD 15 million in Year-1, the plant would generate revenue of USD 34.1 million [Year-1] and 38.3 million in Year-4;

- The project stacks up financially and economically with the creation of over 300 directs jobs and 1000 further down the value chain with an equity NPV of USD 38.6 million; equity IRR of 20%; WACC of 12%; ROI of 20%; ADSCR 2.16x; ROE of 37%; Simple Payback Period of 5.1 Years based on a 60:40 debt to equity target capital structure, debt priced at 9% per annum with a maximum tenor of 10 years, cost of equity 20%; and corporate tax rate of 32% with 5-Year Tax Moratorium [Government Incentive/ Pioneer Industry Status].

THE PROBLEM

- The urban population in Africa is increasing at a faster rate than any other continent [3.5 per cent per annum]. Although waste generation is currently lower in Africa than in the developed world, sub-Saharan Africa is forecast to become the dominant region globally in terms of total waste generation if current generation trends persist;

- Waste generation in Africa, like in other developing regions in the world, is driven by population growth, rapid urbanization, a growing middle class, changing consumption habits and production patterns, and global waste trade and trafficking. Solid Waste Management [SWM] is a sustainable development issue that cuts across socio- economic activities and needs to be a political priority for Africa;

- With a growing middle class and changing consumption habits, there is a correlation between the generation of Municipal Solid Waste [MSW], wealth [GDP per capita], family income, changing lifestyle, changing consumption patterns of the growing urban middle class, and the changing structure of economic activities;

- Currently, in most African countries, organic waste constitutes more than 65% of total waste, compared to only 30 per cent for developed countries. The total MSW generated in Africa [2012] was estimated to be 125 million tonnes per year, of which 81 million tonnes [65%] was from sub-Saharan Africa. Waste generation in Africa is projected to grow to 244 million tonnes per year by 2025;

- The average MSW generation in Africa [2012] was estimated to be 0.78 kg per capita per day, which is much lower than the global average of 1.2 kg per capita per day.

[Source: UNEP 2018 – Africa Waste Management Outlook]

THE PROBLEM

- MSW generation in Africa is projected to increase to 0.99 kg per capita per day by 2025, 1.27x higher than in 2012;

- The average composition of MSW in Africa [sub- Saharan Africa] is about 57% organic; 9 % paper/cardboard, 13% plastic; 4% glass; 4% metal and 13% other materials. The higher organic content relative to paper and packaging is typical of MSW in developing countries. However, the composition of MSW in Africa does vary from place to place, depending on consumer attitude, income level, culture, etc.;

- The largest part of the budget for solid waste management in developing countries goes to waste collection, yet total waste collected in Africa [2012] was only 55% of total waste generated [68 million tonnes]. The average MSW collection rate in sub-Saharan Africa was 44%, although the coverage varies considerably between cities, from less than 20% to well above 90%. The situation is much worse in rural areas. The average MSW collection rate for the continent is expected to increase to 69 per cent by 2025;

- MSW generation rate can also vary considerably among cities in Africa, from as low as 0.32 kg per capita per day for Addis Ababa, Ethiopia, to 0.95 kg per capita per day in Lagos, Nigeria and with an urban population of approximately 73 million generates 40,959 tonnes/ day of MSW and projected to reach 101,307 tonnes/day by 2025;

- MSW composition i.e. Organic, Paper/Card-Board, Plastic, Glass, Metal and Others in percentage are 69.9%; 7.67%; 4.47%; 2%; 1.65% and 14.6% for Ibadan and 62.6%; 10.7%; 4.2%; 2.5%; 2.2% and 19.7% for Lagos respectively. Lagos State has a MSW collection rate of 95%;

[Source: UNEP 2018 – Africa Waste Management Outlook]

THE PROBLEM

- Plastics are polluting nature, endangering wildlife and taxing natural systems. it is entering the food we eat and the air we breathe;

- Plastic is not inherently bad. it is a man-made invention that has generated significant benefits for society. Unfortunately, the way industries and Governments have managed plastic, and the way society has converted it into a disposable and single-use convenience, has transformed this innovation into a planetary environmental disaster;

- The production of virgin plastic has increased 200-fold since 1950, and has grown at a rate of 4 per cent a year since 2000. In 2016, the most recent year for which data is available, production reached 396 million metric tons;

- That is equivalent to 53 kilograms of plastic for each person on the planet. Production of plastic in 2016 resulted in approximately 2 billion metric tons of carbon dioxide emissions, which accounts for almost 6 per cent of the year`s total global carbon dioxide emissions;

- If all predicted plastic production capacity is constructed, current production could increase by 40 per cent by 2030;

- The average MSW recycling rate in Africa is only 4% lower than the average recycling rate of most countries of the OECD, which was 30 per cent in 2013;

THE PROBLEM

- Nigeria is starved for electricity. The country's power sector is significantly underdeveloped, whether we look at energy access, installed capacity, or overall consumption;

- The fact that Nigeria's residential, commercial and industrial sectors suffer electricity shortages means that it struggles to sustain Gross Domestic Product [GDP] growth;

- Regarding consumption, Nigeria's rates are far below other emerging markets. Average electricity consumption in Nigeria is only about 150 kWh per capita. This is a fraction of consumption rates in Brazil, OECD Countries, and South Africa;

- Nigeria has a total installed capacity estimated at 12,522 MW that is mostly thermal based with an average operational generation capacity of 3,879 MW of which 7.4% is lost in transmission and up to 27.7% is rejected at distribution leaving the country with about 2,519 MW and an estimated demand of 24,380 MW in 2015;

- Improving the pricing of gas; payment systems at end user and across value chain; co-location of power generating stations with demand centres; grid flexibility; promote diverse power generating sources such as waste to energy; extent of Government involvement; and transparent governance structures are measures that should be actively pursued by the Government, private sector investors and industry stakeholders.

THE ENVIRONMENTAL AND SOCIAL IMPACT

- Environmental Impacts of plastics include but not limited to the following:

a. Entanglement: Wildlife entanglement has been recorded in over 270 different animal species, including mammals, reptiles, birds and fish. Entanglement in plastic debris often leads to acute and chronic injury or the death of affected animals;

a. Ingestion: Ingested plastic is damaging to the health of animals. Records have documented more than 240 different animal species ingesting plastic. These animals are often unable to pass the plastic through their digestive systems, resulting in internal abrasions, digestive blockages, and death;

b. Habitat Damage: Plastic waste has been found in soils, rivers and oceans where it can degrade or destroy wildlife habitats. Micro-plastic pollution has been shown to alter soil conditions, which can impact the health of fauna and increase the likelihood of harmful chemical leaching in the soil;

c. Social Impact: Plastic pollution has effects on air quality, water systems, and soil conditions. The most common direct impacts are related to unregulated plastic waste management, human ingestion of micro and nano-plastics, and plastic contamination of soils.

[Source: Solving Plastic Pollution through Accountability – WWF Report 2019]

THE SOLUTION

- Waste to wealth and Waste to Energy are becoming widely accepted business models and technology globally. Nigeria is well placed to benefit from the successful development of a vibrant waste-to-energy and waste-to-wealth industry given its huge population and deficit in energy production and consumption;

- Leverage readily available and abundant MSW and post consumer PET in Nigeria to generate sustainable energy for residential, commercial and industrial users as well as generate revenue, create employment and preserve the environment;

- Off-takers will buy affordable, reliable and clean energy, resins and flakes from the plant for less than what they currently pay with no up-front cost;

- The advantages of the business model will enable off-takers secure predictable, long-term rates thus protection from rising costs and price volatility associated with traditional fossil fuel technologies;

- It is hoped our development will encourage other developers and financiers to adopt industry best practices in the development, construction, operation and financing of waste-to-wealth and waste-to-energy projects in Nigeria;

- **Sustainable Development Goal [SDG] 7: Clean and Affordable Energy for All and SDG 12: Responsible Consumption and Production by 2030**

ABOUT HYBRID PLASTIC LIMITED

- **Hybrid Plastic Limited [IHPLz],** the project sponsor is a Special Purpose Vehicle [SPV] established with a mandate to build a more inclusive and sustainable world where all people, everywhere, can reach their fullest potential;

- We partner with and serve communities, Governments, and companies providing an innovative mix of products to create impact at scale;

- Our current strategy is to seek strategic partnership with market and sector specific investors, multilateral and development finance institutions to achieve more and reach further;

- HPL mission is to reduce the degradation of earth`s natural environment, build a future in which humans live in harmony with nature, by conserving the world`s biological diversity, ensuring that the use of renewable natural resources is sustainable, and promote the reduction of pollution and wasteful consumption;

- HPL vision is to be leading sustainable firm by creating massive value for its shareholders, stakeholders and host communities through strategic partnerships and collaborations. The outcome underpinned by HPL desire to generate long-term competitive financial returns on investment, enough to cover its cost of

capital, profitably grow its operation, generate enough cash to meet obligations and pursue opportunities, thereby leading to positive societal-impact.

MANAGEMENT TEAM – IBIDAYO PHILLIPS [MANAGING DIRECTOR]

- Dayo is an adept management consulting & new business development management expert with distinctive achievements in multi-sector supply and demand gap analytics, business solutions architecture and management, change management, business transformation and strategy, sales operations & management, key global accounts management/governance across sectors & region [EMEA] spanning over 14 years in B2B and B2C integrated business solutions/professional services, research and data, consumer goods, banking & financial services, non-profit sector, telecommunication, Waste Management/Resource, Resource efficiency transformation [Recovery campaign architecture and model through RVM for Westminster and Croydon council with cost savings of £20 million per annum and calibrating recovery by additional 20% [negotiations advanced], and healthcare;

- Dayo has extensive capabilities in business development, strategic advisory/consulting, contract lifecycle management, commercial strategy & innovation, supply chain & distribution, account/pipeline strategy & management, team leadership, compliance/ regulation, trade/bid negotiation, business/management review, multiple stakeholder management, value proposition, predictive modeling, communications [Digital & Content], market trend/forecasting, and has successfully led the groundbreaking re-launch of Fan Milk products, Frutta and Dangote Juice drinks resulting in market size increase by 15% and the market share of the brands represented rose substantially;

- Currently designing national waste material recovery campaign model for a number of food, beverage and packaging firms in Nigeria.

MANAGEMENT TEAM – LEILA PHILLIPS [EXECUTIVE DIRECTOR]

- Leila is a skilled and target-driven Retail Manager and Accounting professional with responsibility for multi-million pounds turnover and diverse range of experience and knowledge spanning over 18 years in Retail Management, Financial Accounting and Management across various business units and services [Food, Merchandizing, Home ware and Financial services;]

- Leila has managed the business unit of a pioneering flagship network of stores as well as duty managing with Marks and Spencer Group where she champions core service culture and customer experience management, successful new product launch, record departmental, store and regional performance and leadership and team management for above hundred direct line staff;

- Leila is a consummate retail manager with broad cross functional experience such as trade negotiation and manufacturing, product innovation, human resources management, consistently exceeding key performance metrics such as margin target, revenue, operating profit and footfall target. Leila had a brief experience in Banking with HSBC London as an administrator and assistant accountant with Kimari Nitha in Cambodia before her career in retail management;

- Leila is an ACCA associate with competencies in Accountant in Business, Management Accounting, Financial Accounting, Corporate and Business Law, Performance Management, Taxation and Audit & Assurance and has also worked as a consultant for Save the Children Fund.

MANAGEMENT TEAM – ELIE SAMIR WEHBE [TECHNICAL CONSULTANT]

- Elie is a mechanical engineer with a great combination of knowledge to manage diversified problems, especially within commodity and recycling sector, and has over 22 years experience with managing Plastic Recycling Plant [PRP], MRF for MSW sorting station & Compost Plant [CP];

- Elie has an outstanding operating and maintenance experience across plastics recycling system such as Amut, Sorema, Stadler, Eggermann, Starlinger, Hustler, BPM, Erema, Krone, Boretech , beier Group and Disan and has worked across the Middle East managing and heading Recycling Operations as well as an excellent track record in maintaining plant efficiency and achieving Profitability;

- Elie is an adept technical expert with experience in repairing and servicing plastic recycling lines as well as strong managing and operations experience in PET, HDPE, LDPE, PE and PP food grade systems into rPET pellets and flakes, rHDPE pellets and flakes and rLDPE pellets, project and plant design architecture, quality assurance and cost and budget management, talent management and compliance and risk management.

PET RECYCLING WASHLINE

- **SOREMA PLASTIC RECYCLING SYSTEMS** is a 4th generation family owned company founded in 1922 with two production facilities in Italy employing over 450 people with more than 400 recycling systems installed world wide and more than 2.8 million tonnes of plastic waste recycled with Sorema washing technology per year;

- Due to its worldwide and long-term experience in plastic recycling machines, SOREMA developed a specific and globally recognized know-how in treating the most difficult plastic materials in the recycling process with a philosophy to customize recycling technology and to engineer efficient and flexible plastic recycling plant;

- SOREMA operate in many different fields of the recycling market, as: Recycling of PET bottles; Recycling of HDPE and PP; Recycling process of Thermoforms; Recycling of plastic film; Dry cleaning of plastic: SOREMA has been able to deeply innovate the process of properly cleaning plastic from different contaminants, thanks to its patent-pending dry centrifuge;

- Due to its long experience, SOREMA can supply its plastic recycling plants as a turnkey service including: Engineering and layout drawings to fit the customer's facility; All machines and connective piping; Electrical connection design [cabling offered as option]; PLC control system; Utility connection drawings; Start up support and operator training [installation and project management training on request].

- SOREMA would provide turnkey service for the construction of the PET Recycling plant in collaboration with indigenous civil construction companies and provide routine operations, maintenance and management services with plans to develop in-house indigenous capability over medium to long term through technology transfer;

- Sorema would manufacture and supply the Wash line Component of the Recycling Plant.

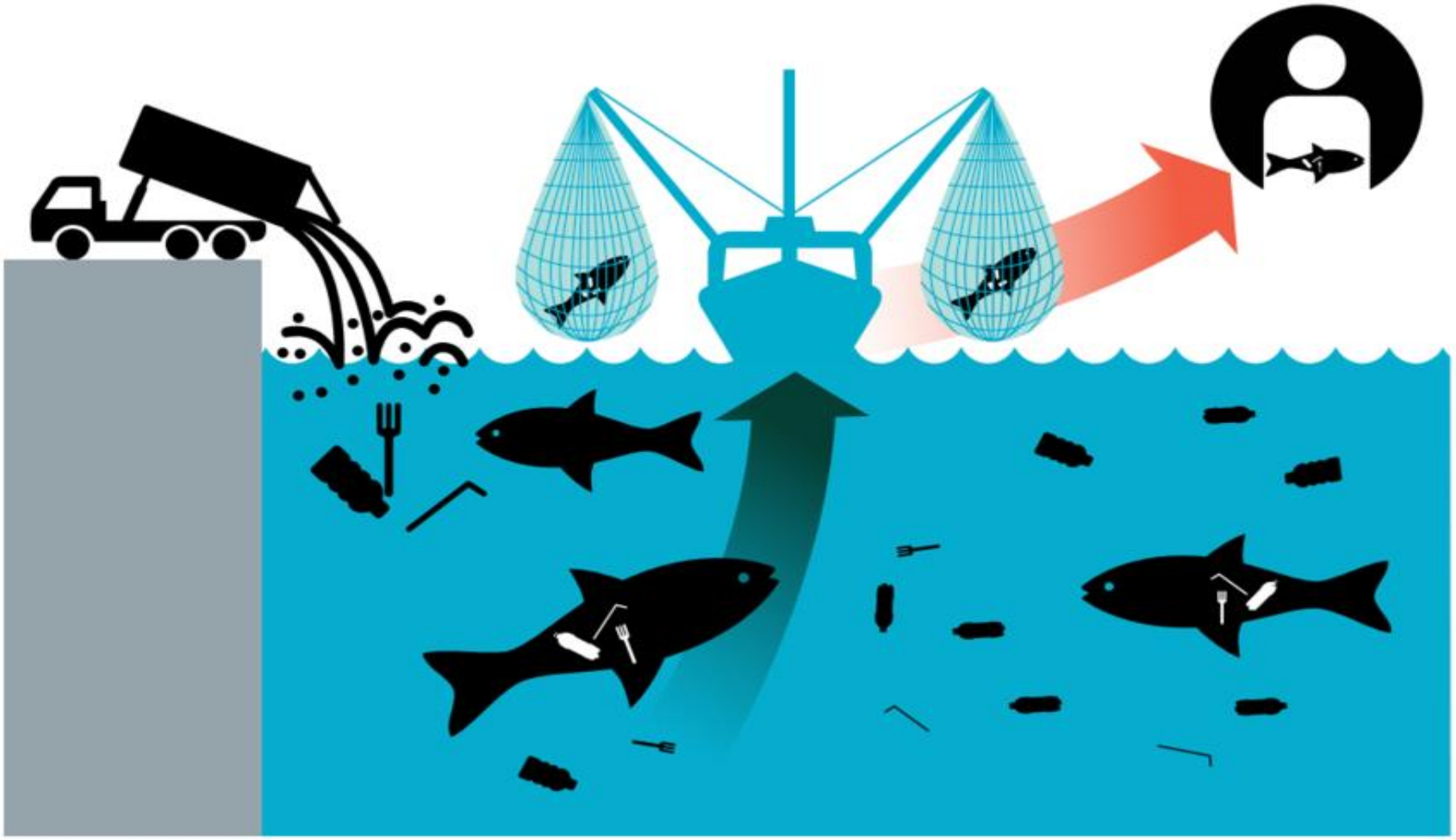
PET RECYCLING – SORTING AND EXTRUSION COMPONENT

- **EREMA** is a leading developer and manufacturing plastics recycling machines and system components. Founded in 1983 as a pioneer in the industry, more than 6,000 of its systems are now in operation around the globe. Highly respected for their level of innovation, durability and operational reliability. In total, they produce more than 14.5 million tonnes of plastics pellets every year. To the very highest, demand-specific quality. Erema would manufacture and supply the PET extrusion component of the plant;

- **TOMRA** renowned for developing the world's first high-capacity near infrared [NIR] sensor for waste sorting applications, TOMRA sorting recycling remains an industry pioneer with a dedication to operational value and sustainability. Its state-of-the-art machinery, industry expertise and exceptional service would ensure short-term objectives are met while also ensuring long-term success.

CORPORATE GOVERNANCE

- Draft Corporate Governance Manual is provided in the transaction's Virtual Data-Room [VDR].



INVESTMENT OPPORTUNITY & PRINCIPLE

INVESTMENT RATIONALE

- Environmental and Social Governance and Impact Investment have become key principles for investors that seek to align corporate objectives with investments decisions. Impact investments are aimed at creating an impact/measurable benefits in the community via investments in sustainable social projects;

- Environmental Impact Investments are even more so at the forefront of investment decisions given global policies being adopted by major economies to address climate issues and corporate objectives aimed towards creating a clean environment. Industries that fall under Environmental Impact Investments include renewable energy, energy efficiency, waste management, materials recycling etc.;

- Studies have shown that returns from Impact Investments are higher than that from traditional investments in the long run given the stable and pre-determined revenue as well as stakeholders [Corporates, Government, Non-Governmental Organisations and Citizens] commitment to the various social or environmental projects;

- The need to issue instruments and develop projects specifically targeted at critical social and environmental infrastructure necessary for growth and development in emerging markets such as Nigeria has become imperative.

DESCRIPTION OF MSW AND PET PROCESSING PLANT

- The project sponsor aims to develop a one hundred tonnes/day [100 t/d] PET recycling plant in Phase I and a 160 tonnes/day MSW treatment plant with with 30 MW power plant component in Phase II in Agbowo, along Ikorodu – Epe Expressway, Epe Local Government Area of Lagos State;

- The plant would produce 16,800 tonnes of Resins and 3,600 tonnes of flakes in Year-1 at 80% capacity factor and 27,000 tonnes of Resins and 4,050 tonnes of flakes in Year-4 at 90% capacity factor;

- The project would require a Capital Expenditure [CAPEX] of USD 150 million over eighteen [18] months construction period, and an annual operations, maintenance and management expenditure [OPEX] of USD 15 million including feedstock costs in Year-1 for Phase I with a target Commercial Operation Date of 2.Q 2024 ;

- Project development activities commenced in 2017 with identification of the business opportunity and acquisition of four dot one [4.1] hectares land close to two [2] major landfill that are within five [5] kilometres;

- Extensive stakeholder engagement has been carried with prospective feedstock suppliers such as West Africa Energy Limited, 7UP Bottling Company, Collectors/Aggregators and Pickers as well as prospective off-takers [Coca-Cola, Unilever, 7Up Bottling Company, Eko Distribution Company Plc.];

- Similarly, a Memorandum of Understanding [MOU] has been initialled for the supply of feedstock and off-take of Resins, and Flakes from the facility with on-going discussion to initial a Power Purchase Agreement [PPA];

INVESTMENT PRINCIPLE

- For the purpose of appraising the project, the following assumptions will apply:

a. Total estimated cost of the entire project is USD 150 million at an average installation cost of USD 1,500,000 per tonne;

b. It is intended that project will be Non-Recourse Project Finance through a combination of debt and equity with a target capital structure of 60:40 debt to equity ratio;

c. The sponsor will co-invest, providing equity and debt from a combination of planned sources including debt financing from multilateral and development finance institutions, export credit agencies, market and sector specific investors;

d. The project will operate as an integrated network i.e. revenues from any part of the segment will be consolidated in one pot, from which liabilities will be serviced;

e. The project is intended to operate commercially, with revenues coming in the form of commercially determined product tariff embedded in the off-take agreement with creditworthy counterparties.

INVESTMENT PRINCIPLE

f. The Off-take agreement will indicate the appropriate revenue securitization scheme applicable for the type of customer;

g. It is anticipated that by 2025, effective plant utilization rate should be 80% and 90% by 2026. Conceptual engineering has been completed for the project and detailed engineering would commence by 1.Q 2023;

h. Construction will be implemented in segments leveraging an optimum number of EPC contractor, sub-contractors and service providers to enable speedy completion of the plant with construction expected to commence by 1.Q 2023;

i. The proposed structure is based on the assumption that interested parties are willing to invest equity, thus the facility will be developed and operated by a Special Purpose Vehicle [SPV] comprising the project sponsor and select market and sector specific investors;

j. The SPV will operate on a Design, Finance, Build, Own and Operate [DFBOO] basis.

KEY PROJECT CONTRACT

- **Feed Stock Supply Agreement:** This agreement is to be entered into between State Owned and Private Corporate waste management firms for the long-term supply of adequate feedstock with associated tipping fee of USD 200/tonne [PET] as an incentive to ensure reliable supply by operators of landfills, collectors/aggregators, pickers and the general populace;

- **Off-take Agreement:** A long term off-take agreement will be entered into between project company and off-takers for the supply of Resins and Flakes from the plant. It is expected that >60% of the plant output would be locked-in through long term off-take agreement;

- **Engineering Procurement and Construction Contract:** This will set out the key terms governing the construction of the plant and all associated facilities. The EPC Contract would include the agreed technical specification required, as well as the agreed cost and timeline for delivery of the plant and associated facilities. The EPC Contract would also include performance guarantees and liquidated damages, that would become payable in case of delay;

- **Services Operation and Maintenance Agreement:** This will set out the key terms governing the operation, maintenance and management of the treatment plant following its completion;

- **Securitization Agreement:** This agreement is designed to set out the key terms pursuant to which beneficiary lenders would be granted the right to the Project Company to access an agreed portion of product sales funds to fund financing obligations of developing the plant.

PROJECT DEVELOPMENT ACTIVITY AND STATUS

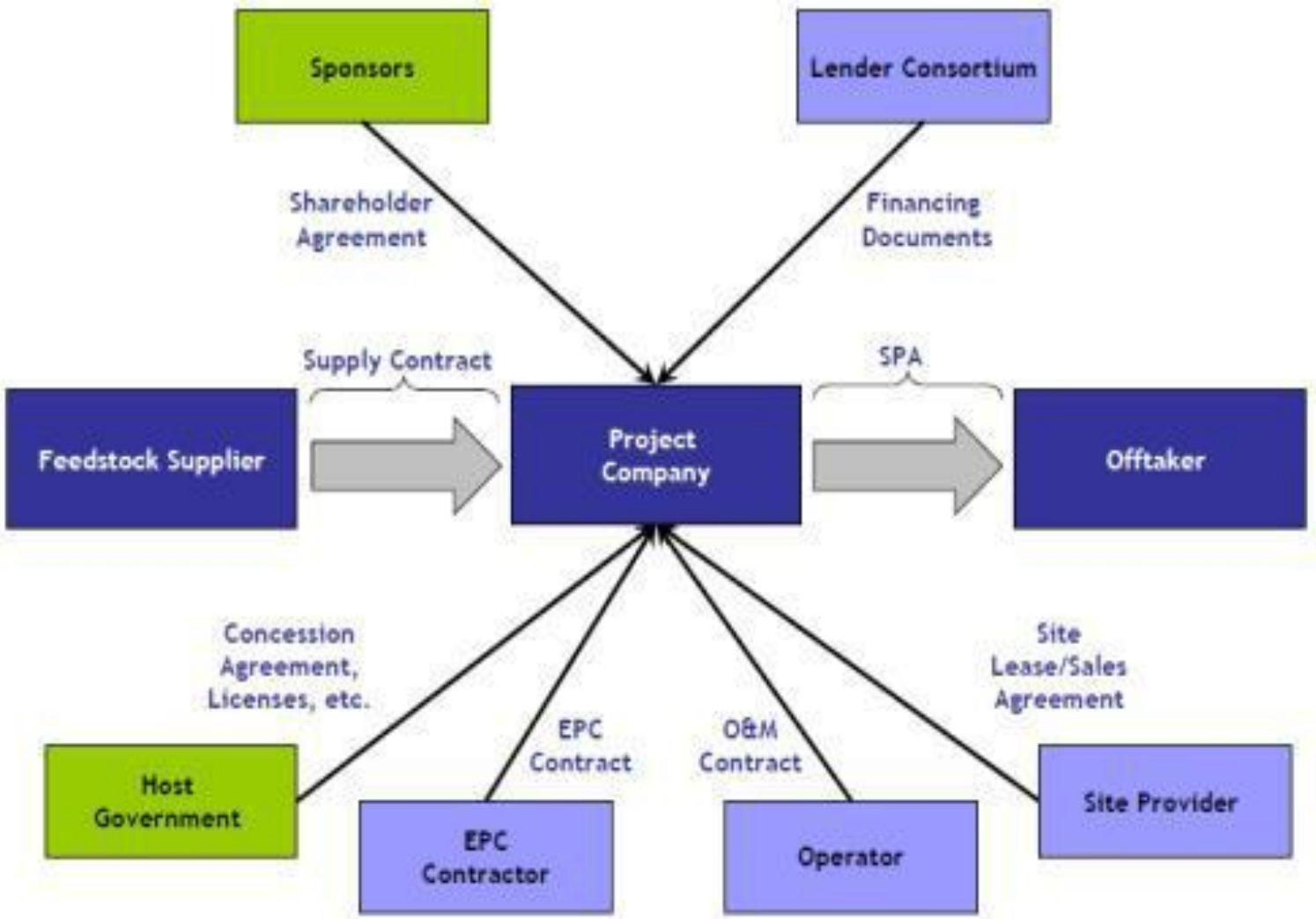
S/N	DESCRIPTION	REMARK	STATUS
2	Project Site Acquisition and Preparation	4.1 Hectares Site Acquired In Epe LGA less than 1km from the Ikorodu-Epe Expressway	Certification of Occupancy Application submitted to Lagos State Government
4	Environmental and Social Impact Assessment	Commissioned and application submitted to Federal Ministry of Environment for approval	There might be need to update the ESIA report to meet IFC Performance Standards
6	EPC and O&M Contract	Robust engagement with reputable EPC [OEM] and O&M partners	Contract to be executed
8	Permits, Licensing and Approvals	Power Generation License	Application to be re-submitted to NERC for approval

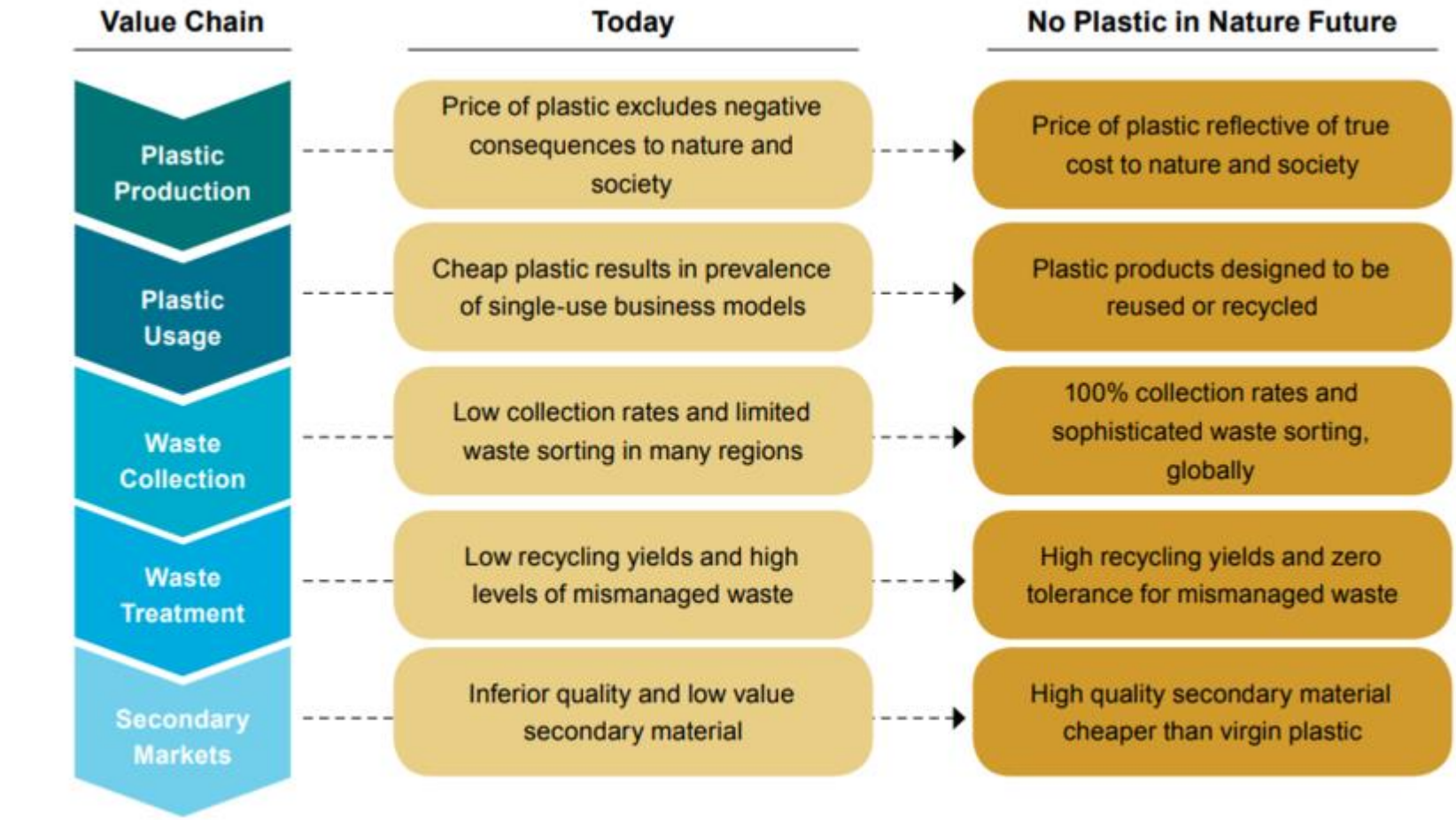
RELEVANT LEGISLATION

- The Harmful Waste [Special Criminal Provisions] Act 1988;
- The Land Use Act [1978];
- The National Environmental Standards And Regulations Enforcement Agency [NESREA] Act 2007;
- Environmental Impact Assessment [EIA] Act Of 1992
- Electricity Power Sector Reform Act [EPSRA] 2005;
- United Nations Framework Convention on Climate Change [1992];
- Convention on Prevention of Marine Pollution by Dumping of Wastes and Other Matter [1974] [UNEP 2009],
- Cleaner Lagos Initiative [CLI] was introduced in 2016 with the objective of achieving a clean metropolis through a sustainable waste management framework. This is expected to eliminate indiscriminate waste disposal and the resultant health risks while ensuring waste management and recovery systems are in place. The CLI entails the reform and consolidation of various environmental policies including restructuring of the existing waste

collection and management system to ensure efficiency, incorporate global best practices and adopt best in class technologies.

PROJECT STRUCTURE: NON-RECOURSE PROJECT FINANCE





Source: Dalberg analysis, Jambeck & al (2014), World Bank (2018), SITRA (2018)

INVESTMENT REQUIREMENT AND PROJECTED RETURN

ASSUMPTION AND PARAMETERS

PET Processing Plant Parameters	Unit	Quantity
PET Plant Processing Capacity	tonnes/day	100
Plant Output - Resins	tonnes/day	70
Plant Output - Flakes	tonnes/day	15
Operating Day	Days/Annum	300
Annual Output - Resins	tonnes	21,000
Annual Output - Flakes	tonnes	4,500
Resins Sale Price	USD/tonne	850
Flakes Price	USD/tonne	250
Quantity of PET Processed	tons/annum	30,000
PET Tipping Fee	USD/tonne	200
Peak Electricity Consumption	MW	3
Electricity Consumption per annum	MWh	21,600
Cost of Electricity	USD/MWh	75
Cost of PET Processing	USD/Annum	6,000,000

Assumptions	Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
General Assumptions	Period	-1	0	1	2	3	4	5	6	7	8	9	10
Inflation [CPI] Nigeria per annum [(%]		11.5%	11.0%	10.5%	10.5%	10.5%	10.5%	10.5%	10.5%	10.5%	10.5%	10.5%	10.5%
Naira Change/Degradation per annum (%)		2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Forex [NGN/USD]		360	369	378	388	397	407	417	428	439	450	461	472
US Inflation [CPI] Estimatess [%]		2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Corporate Tax Rate [CITA + 2 Years]				0%	0%	0%	0%	0%	32%	32%	32%	32%	32%

-	Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Parameter	**Period**	**-1**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Plant Capacity Factor		0%	0%	80%	80%	85%	90%	90%	90%	90%	90%	90%	90%
Quantity of PET Processed		-	-	24,000	24,000	25,500	27,000	27,000	27,000	27,000	27,000	27,000	27,000
Quantity of Resins		-	-	16,800	16,800	17,850	18,900	18,900	18,900	18,900	18,900	18,900	18,900
Quantity of Flakes		-	-	3,600	3,600	3,825	4,050	4,050	4,050	4,050	4,050	4,050	4,050
Resin Price		850	850	850	871	893	915	938	962	986	1,010	1,036	1,062
Flake Price		250	250	250	256	263	269	276	283	290	297	305	312
Resin Revenue		0	0	14,280,000	14,637,000	15,940,608	17,300,248	17,732,754	18,176,073	18,630,475	19,096,237	19,573,643	20,062,984
Flake Revenue		0	0	900,000	922,500	1,004,660	1,090,352	1,117,611	1,145,551	1,174,190	1,203,544	1,233,633	1,264,474
Total Revenue		**0**	**0**	**15,180,000**	**15,559,500**	**16,945,268**	**18,390,600**	**18,850,365**	**19,321,624**	**19,804,664**	**20,299,781**	**20,807,275**	**21,327,457**

CAPITAL EXPENDITURE AND PROJECT DEVELOPMENT COST

Indicative Development Cost				
Description	**Unit**	**Unit Cost [USD]**	**Total Cost [USD]**	**% of Total Cost**
100 tonnes/day PET Recycling Equipment and Machineries	1	17,500,000	17,500,000	79.1%
3.3MW GE Jenbacher Gas Engine - Containerized	1	1,350,000	1,350,000	6.1%
Ocean Freight and Inland Transportation	1	100,000	100,000	0.5%
Civil Works & Upgrade of 1.5km Access Road	1	1,500,000	1,500,000	6.8%
Installation, Testing and Commissioning	1	550,000	550,000	2.5%
Project Management Consultancy	1	250,000	250,000	1.1%
Import Duty	5%	875,000	875,000	4.0%
Total Transaction Cost [USD]			**22,125,000**	**100%**
		Check Transaction Cost	-	0.0%

Other Development Cost	**Amount [USD]**
4.1 hectare Land [Net Appraisal Value]	200,000
Formation of SPV/Due Diligence Cost	100,000
Development Capital	250,000
Man-hours [Expenses]	75,000
Insurance [all-risk, 3rd Party, Cargo]	75,000
MIGA - PRI	
Premium - Debt	-
Premium - Equity	250,000
Financing Fees	1,000,000
Legal, Accounting, Banking etc	150,000
Pre-funded Working Capital	
Carried Interest	500,000
Contingency	500,000
DSRA/Contingency	3,000,000
Total	**6,100,000**

OPERATING EXPENDITURE AND FINANCIAL VIABILITY EVALUATION

Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Operating Expenditure/Period	-1	0	1	2	3	4	5	6	7	8	9	10
Chemicals	-	-	640,700	656,718	673,135	689,964	707,213	724,893	743,016	761,591	780,631	800,147
Administration and Logistics Cost	-	-	852,236	873,542	895,380	917,765	940,709	964,227	988,332	1,013,041	1,038,367	1,064,326
Management Cost including feedstock	-	-	6,944,444	7,118,055	7,296,006	7,478,407	7,665,367	7,857,001	8,053,426	8,254,762	8,461,131	8,672,659
Maintenance & Spare Part Replacement	-	-	250,000	256,250	262,656	269,223	275,953	282,852	289,923	297,171	304,601	312,216
Cost of Electricity	-	-	1,620,000	1,620,000	1,620,000	1,620,000	1,620,000	1,620,000	1,620,000	1,620,000	1,620,000	1,620,000
Insurance	-	-	188,500	193,213	198,043	202,994	208,069	213,270	218,602	224,067	229,669	235,411
Professional Fees [Legal, Tax, Accounting]	-	-	350,000	358,750	367,719	376,912	386,335	395,993	405,893	416,040	426,441	437,102
Depreciation, CITA Tax Holiday + 2 Years [20 Years Straight Line]	-	-						1,256,665	1,256,665	1,256,665	1,256,665	1,256,665
Total O&M Cost	**-**	**-**	**10,845,880**	**11,076,527**	**11,312,940**	**11,555,264**	**11,803,645**	**12,058,236**	**12,319,192**	**12,586,672**	**12,860,839**	**13,141,860**

Financial Viability Evaluation								
Investment Needs	**Unit**	**%**						
CAPEX [USD]	22,125,000.0	65.8%						
Other Project Costs [USD]	6,100,000.0	18.1%						
6 Month Operation Cash [USD]	5,422,940.0	16.1%						
Total Investment [USD]	33,647,940.0	100%						
Funding Sources								
Equity Investment [USD]	13,459,176.0	40%					Notional Amount (NGN)	13,459,176.0
Loan [USD]	20,188,764.0	60%	Blended Interest Rate [%]	9.0%	Tenor [Years]	10	Notional Amount (NGN)	20,188,764.0
Grant [USD]	-	0%						
Total [USD]	33,647,940.0	100%						
Annual Loss/Profit								
Operating Income/EBITDA [USD]	4,334,120.0							
Loan Repayment [USD]	(3,145,815.02)		**Cost of Equity**	20%				
Pre-Tax Profits [USD]	1,188,305.0		**Tax Rate [%]**	32%				
Financial Performance								
Return on Investment [%]	20%		EBITDA					
Simple Payback Period [Years]	5.1		EBITDA					
Weighted Average Cost of Capital [WACC]	12%							
Capitalization Rate [%]	13%		EBITDA					

Debt Financing Schedule				
Type	Amount	% of Total	Commitment Fee	Interest Rate
Equipment Finance [USD]	0	0%	0.5%	8.0%
Syndicated Debt [USD]	20,188,764	100%	0.5%	9.0%
Concessional Debt [USD]	0	0%	0.5%	5.5%
Total [USD]	20,188,764.0	100%	0.5%	9.0%

PROFIT AND LOSS STATEMENT, DEBT SERVICE AND DEPRECIATION SCHEDULE

Description	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Period	-1	0	1	2	3	4	5	6	7	8	9	10
Revenue												
Resins [USD]			14,280,000	14,637,000	15,940,608	17,300,248	17,732,754	18,176,073	18,630,475	19,096,237	19,573,643	20,062,984
Flakes [USD]			900,000	922,500	1,004,660	1,090,352	1,117,611	1,145,551	1,174,190	1,203,544	1,233,633	1,264,474
Total Revenue [USD]			**15,180,000**	**15,559,500**	**16,945,268**	**18,390,600**	**18,850,365**	**19,321,624**	**19,804,664**	**20,299,781**	**20,807,275**	**21,327,457**
Cost												
Chemicals			(640,700)	(656,718)	(673,135)	(689,964)	(707,213)	(724,893)	(743,016)	(761,591)	(780,631)	(800,147)
Administration and Logistics Cost			(852,236)	(873,542)	(895,380)	(917,765)	(940,709)	(964,227)	(988,332)	(1,013,041)	(1,038,367)	(1,064,326)
Management Cost including feedstock			(6,944,444)	(7,118,055)	(7,296,006)	(7,478,407)	(7,665,367)	(7,857,001)	(8,053,426)	(8,254,762)	(8,461,131)	(8,672,659)
Maintenance & Spare Part Replacement			(250,000)	(256,250)	(262,656)	(269,223)	(275,953)	(282,852)	(289,923)	(297,171)	(304,601)	(312,216)
Cost of Electricity			(1,620,000)	(1,620,000)	(1,620,000)	(1,620,000)	(1,620,000)	(1,620,000)	(1,620,000)	(1,620,000)	(1,620,000)	(1,620,000)
Insurance			(188,500)	(193,213)	(198,043)	(202,994)	(208,069)	(213,270)	(218,602)	(224,067)	(229,669)	(235,411)
Professional Fees [Legal, Tax, Accounting]			(350,000)	(358,750)	(367,719)	(376,912)	(386,335)	(395,993)	(405,893)	(416,040)	(426,441)	(437,102)
Total Cost [USD]			**(10,845,880)**	**(11,076,527)**	**(11,312,940)**	**(11,555,264)**	**(11,803,645)**	**(12,058,236)**	**(12,319,192)**	**(12,586,672)**	**(12,860,839)**	**(13,141,860)**
EBITDA [USD]			4,334,120	4,482,973	5,632,328	6,835,336	7,046,719	7,263,387	7,485,472	7,713,109	7,946,437	8,185,597
Depreciation, CITA Tax Holiday + 2 Years [USD]								(1,256,665)	(1,256,665)	(1,256,665)	(1,256,665)	(1,256,665)
EBIT [USD]			4,334,120	4,482,973	5,632,328	6,835,336	7,046,719	6,006,722	6,228,807	6,456,443	6,689,771	6,928,932
Interest [USD]			(1,980,518)	(1,782,466)	(1,584,414)	(1,386,362)	(1,188,311)	(990,259)	(792,207)	(594,155)	(396,104)	(198,052)
Tax [USD]								(1,922,151)	(1,993,218)	(2,066,062)	(2,140,727)	(2,217,258)
Net Profit [USD]			**2,353,602**	**2,700,507**	**4,047,914**	**5,448,974**	**5,858,409**	**3,094,312**	**3,443,381**	**3,796,226**	**4,152,941**	**4,513,622**

Debt Calculation	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Construction Cost Split	**-1**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Debt [USD]	-	20,188,764	-									
Capitalized Interest [USD]	-	(1,816,989)										
Total YE Debt [USD]	-	22,005,753	19,805,177	17,604,602	15,404,027	13,203,452	11,002,876	8,802,301	6,601,726	4,401,151	2,200,575	-
Loan Repayment [USD]			(4,181,093)	(3,983,041)	(3,784,989)	(3,586,938)	(3,388,886)	(3,190,834)	(2,992,782)	(2,794,731)	(2,596,679)	(2,398,627)
To Principal [USD]			(2,200,575)	(2,200,575)	(2,200,575)	(2,200,575)	(2,200,575)	(2,200,575)	(2,200,575)	(2,200,575)	(2,200,575)	(2,200,575)
To Interest [USD]			(1,980,518)	(1,782,466)	(1,584,414)	(1,386,362)	(1,188,311)	(990,259)	(792,207)	(594,155)	(396,104)	(198,052)
Check			-	-	-	-	-	-	-	-	-	-
DSCR	**2.16**		**1.04**	**1.13**	**1.49**	**1.91**	**2.08**	**2.28**	**2.50**	**2.76**	**3.06**	**3.41**

Depreciation [Years]	-1	0	1	2	3	4	5	6	7	8	9	10
EBITDA [USD]	-	-	4,334,120	4,482,973	5,632,328	6,835,336	7,046,719	7,263,387	7,485,472	7,713,109	7,946,437	8,185,597
Depreciation Charge - CITA Tax Holiday + 2 Years [USD]	-	-	-	-	-	-	-	(1,256,665.4)	(1,256,665.4)	(1,256,665.4)	(1,256,665.4)	(1,256,665.4)
Interest Rate Charge [USD]	-	-	(1,980,518)	(1,782,466)	(1,584,414)	(1,386,362)	(1,188,311)	(990,259)	(792,207)	(594,155)	(396,104)	(198,052)

CASHFLOW STATEMENT

Description		Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Unit	Period	-1	0	1	2	3	4	5	6	7	8	9	10
CAPEX	USD		(1,009,438)	(32,638,502)	-									
Revenue Projection														
Resins	USD				14,280,000	14,637,000	15,940,608	17,300,248	17,732,754	18,176,073	18,630,475	19,096,237	19,573,643	20,062,984
Flake	USD				900,000	922,500	1,004,660	1,090,352	1,117,611	1,145,551	1,174,190	1,203,544	1,233,633	1,264,474
Total Revenue	USD				15,180,000	15,559,500	16,945,268	18,390,600	18,850,365	19,321,624	19,804,664	20,299,781	20,807,275	21,327,457
Discount Factor	%				0.90	0.80	0.72	0.64	0.58	0.52	0.46	0.41	0.37	0.33
Operation, Maintenance and Management Expenditure														
Chemicals	USD				(640,700)	(656,718)	(673,135)	(689,964)	(707,213)	(724,893)	(743,016)	(761,591)	(780,631)	(800,147)
Administration and Logistics Cost	USD				(852,236)	(873,542)	(895,380)	(917,765)	(940,709)	(964,227)	(988,332)	(1,013,041)	(1,038,367)	(1,064,326)
Management Cost including feedstock	USD				(6,944,444)	(7,118,055)	(7,296,006)	(7,478,407)	(7,665,367)	(7,857,001)	(8,053,426)	(8,254,762)	(8,461,131)	(8,672,659)
Maintenance & Spare Part Replacement	USD				(250,000)	(256,250)	(262,656)	(269,223)	(275,953)	(282,852)	(289,923)	(297,171)	(304,601)	(312,216)
Cost of Electricity	USD				(1,620,000)	(1,620,000)	(1,620,000)	(1,620,000)	(1,620,000)	(1,620,000)	(1,620,000)	(1,620,000)	(1,620,000)	(1,620,000)
Insurance	USD				(188,500)	(193,213)	(198,043)	(202,994)	(208,069)	(213,270)	(218,602)	(224,067)	(229,669)	(235,411)
Professional Fees [Legal, Tax, Accounting]	USD				(350,000)	(358,750)	(367,719)	(376,912)	(386,335)	(395,993)	(405,893)	(416,040)	(426,441)	(437,102)
Total O&M Cost	USD				(10,845,880)	(11,076,527)	(11,312,940)	(11,555,264)	(11,803,645)	(12,058,236)	(12,319,192)	(12,586,672)	(12,860,839)	(13,141,860)
Earnings														
EBITDA	USD				4,334,120	4,482,973	5,632,328	6,835,336	7,046,719	7,263,387	7,485,472	7,713,109	7,946,437	8,185,597
Depreciation, CITA Tax Holiday + 2 Years [20 Years Straight Line]	USD									(1,256,665.4)	(1,256,665.4)	(1,256,665.4)	(1,256,665.4)	(1,256,665.4)
Payment Into Reserve Fund	USD	**2.0%**			(86,682)	(89,659)	(112,647)	(136,707)	(140,934)	(145,268)	(149,709)	(154,262)	(158,929)	(163,712)
EBIT	USD			(33,647,940)	4,247,438	4,393,314	5,519,681	6,698,629	6,905,785	5,861,454	6,079,097	6,302,181	6,530,842	6,765,220
Corporate Tax [CITA Tax Holiday + 2 Years]	USD				-	-	-	-	-	(1,875,665)	(1,945,311)	(2,016,698)	(2,089,870)	(2,164,870)
Cash Flow														
Operating Cashflow	USD				4,334,120	4,482,973	5,632,328	6,835,336	7,046,719	5,387,722	5,540,161	5,696,411	5,856,567	6,020,727
Free Cash Flow	USD				4,420,802	4,572,632	5,744,974	6,972,043	7,187,654	5,532,990	5,689,870	5,850,673	6,015,496	6,184,439
Discounted Free Cash Flow	USD			(33,647,940)	3,958,738	3,666,720	4,125,297	4,483,146	4,138,716	2,852,950	2,627,195	2,419,087	2,227,270	2,050,489
Cumulative Discounted Cash Flow	USD			(33,647,940)	(29,689,202)	(26,022,482)	(21,897,185)	(17,414,039)	(13,275,323)	(10,422,373)	(7,795,178)	(5,376,091)	(3,148,822)	(1,098,333)
Payback Calculation	Year													
Construction Finance and Debt Service														
Cash Flow Available for Debt Service [CFAFDS]	USD			(33,647,940)	4,420,802.4	4,572,632.5	5,744,974.3	6,972,042.7	7,187,653.8	5,532,989.8	5,689,870.4	5,850,673.0	6,015,495.7	6,184,439.0
Opening Balance		-	-	-	22,005,753	19,805,177	17,604,602	15,404,027	13,203,452	11,002,876	8,802,301	6,601,726	4,401,151	2,200,575
Additions		-	-	20,188,764	-	-	-	-	-	-	-	-	-	-
Interest Capitalized		-	-	(1,816,989)	-	-	-	-	-	-	-	-	-	-
Interest Paid		-	-	-	(1,980,518)	(1,782,466)	(1,584,414)	(1,386,362)	(1,188,311)	(990,259)	(792,207)	(594,155)	(396,104)	(198,052)
Principal Repayment		-	-	-	(2,200,575)	(2,200,575)	(2,200,575)	(2,200,575)	(2,200,575)	(2,200,575)	(2,200,575)	(2,200,575)	(2,200,575)	(2,200,575)
Closing Balance		-	-	22,005,753	19,805,177	17,604,602	15,404,027	13,203,452	11,002,876	8,802,301	6,601,726	4,401,151	2,200,575	-
Total Debt Service	USD		-	-	(4,181,093)	(3,983,041)	(3,784,989)	(3,586,938)	(3,388,886)	(3,190,834)	(2,992,782)	(2,794,731)	(2,596,679)	(2,398,627)
Debt Service Coverage [DSCR]	%	2.16			1.04	1.13	1.49	1.91	2.08	2.28	2.50	2.76	3.06	3.41
Interest Tax Shield	USD				-	-	-	-	-	316,883	253,506	190,130	126,753	63,377
Capital Cashflow	USD			(33,647,940)	239,709	589,591	1,959,985	3,385,105	3,798,768	2,659,038	2,950,594	3,246,072	3,545,570	3,849,189
Qualified CFAFDS	USD				4,420,802	4,572,632	5,744,974	6,972,043	7,187,654	5,532,990	5,689,870	5,850,673	6,015,496	6,184,439
NPV of CFAFDS [for LLCR]	USD				9,565,310	10,815,955	12,181,372	11,926,722	12,282,817	10,772,148	11,076,624	11,388,712	6,015,496	6,184,439
Loan Life Coverage Ratio [LLCR]	%	1.5			0.5	0.6	0.8	0.9	1.1	1.2	1.7	2.6	2.7	#DIV/0!
NPV of CFAFDS [for PLCR]	USD				51,271,446	52,319,051	53,319,381	53,127,291	51,542,489	49,531,932	49,134,498	48,515,485	47,644,649	46,488,108
Project Loan Coverage Ratio [PLCR]	%	7.6			2.6	3.0	3.5	4.0	4.7	5.6	7.4	11.0	21.7	#DIV/0!
NPV [EBIT]	USD	**12,639,727**												
IRR [EBIT]	%	**17%**												
Payback Period [Discounted]	Years	**11**												
Equity IRR	%	**20%**		(13,459,176)	239,709	589,591	1,959,985	3,385,105	3,798,768	2,659,038	2,950,594	3,246,072	3,545,570	3,849,189
Equity NPV	USD	**11,665,631**												
Return On Equity	USD	**37%**			2%	4%	15%	25%	28%	20%	22%	24%	26%	29%
Reserve Fund After 20 Years	**USD**	**3,179,872**												

FUND DISBURSEMENT AND IMPLEMENTATION SCHEDULE

Funding Disbursement Validation						
Phase	Phase 1	Phase 2	Phase 3	Phase 4	Total [USD]	Check
Year	2018	2019	2020	2021		
Activity	Preliminary Design, Economic Viability and Business Plan	Development, Permitting, Procurement, Agreements	Term Sheet Financing, Procurement, Construction	Commissioning, Performance Testings, Operations		
Equity Disbursement [%]	2.5%	5.0%	65.0%	27.5%	100.0%	
Equity [USD]	336,479.4	672,958.8	8,748,464.4	3,701,273.4	13,459,176.0	13,459,176.0
Debt Disbursement [%]	0%	0%	100%	0%	100%	
Loan [USD]	-	-	20,188,764.0	-	20,188,764.0	20,188,764.0
Grant Disbursement [%]	0%	25%	50%	25%	100%	
Grant [USD]	0	0	0	0	-	-
Total	336,479.4	672,958.8	28,937,228.4	3,701,273.4	33,647,940.0	33,647,940.0
Timeline	Completed	[In Progress]	12 Months	3 Months		
Milestones	Proof of technical feasibility, economic viability and bankability;	Establishment of Concession SPV[E]; JDA and Commercial and Financial Close	Engineering, Procurement, Installation and Construction	Commercial Operation Date [COD];		

General Project Scheduling Table					2018				2019				2020				2021			
Project Phase	Quarter	Year	Phase	Quarter	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1 - Identify	Q - 1	2018	1	Project Identification	■															
2 - Screen	Q - 2	2018	2	Resource Assessment		■														
3 - Assess	Q - 3	2018	3	Pre-feasibility Study			■													
4 - Select	Q - 4	2018	4	Market Identification				■												
5 - Pre Development	Q - 1	2019	5	Feasibility Study					■											
	Q - 2	2019	6	Site Design and Preparation						■	■									
	Q - 4	2019	7	Commercial Close								■								
6 - Development	Q - 1	2020	8	Financial Close & Detailed Engineering									■							
	Q - 2	2020	10	Construction - Civil Works & Installation										■	■	■				
7 - Execute	Q - 1	2021	11	Testing, Certification & Commissioning													■			
8 - Operate	Q - 2	2021	13	Commercial Operation														■	■	■

RISK ASSESSMENT AND ALLOCATION

RISK ASSESSMENT

- The Project involves the development of a 100 tonnes/day PET Recycling Facility on a Design, Finance, Build, Own and Operate [D-F-B-O-O] basis. The Project Proponents will be responsible for Operations and Maintenance after construction. According to the proposed financing and governance structure, the project would require the developer to raise adequate funds to finance the project to meet up with the project execution schedule;

- The tenor, cost of finance, and fees will be agreed with lenders and investors and executed through a Project Financing Agreement to be executed by the Project Financier [Lenders] and the Project Sponsor. The project is part of the interventions necessary to ensure sustainable development in line with the **Sustainable Development Goal [SDG] 12: Responsible Consumption and Production by 2030;**

- Any project typically faces several risks throughout the project period. Risks associated with the projects relate to development, construction and operations. There is the added country specific risk and residual risks. These risks have been identified, classified, analyzed and allocated to the parties in the best position to mitigate them. Options for mitigation have also been identified and a preliminary but comprehensive risk register developed and will be proactively monitored, reviewed and updated for the project. This segment of the document the risk analysis of the project and covers commercial, technical, HSE, political, legal, market, schedule and plant operational risks;

- **Country Specific Risks**

A country specific risk derives from an assessment of a country's ability to effectively implement monetary policy, implement fiscal policy, overall quality of the business environment, ease of doing business, flexibility of the labor market, including a company's ability to hire and fire employees, and degree of stability in a government. It also includes an assessment of the degree of social stability including human development and political rights, the degree of stability in the region, and the transparency and level of corruption in the legal system. These risks include Economic Risk [High]; Political Risk [Very High]; and Financial Systems Risks [Very High].

RISK ASSESSMENT

Project Specific Risks

The types of risks are different at each stages of the project. The following risks, identified by the project team, derive from an examination of issues and concerns created from an examination of the project description, work breakdown structure, cost estimate, design and construction schedule, procurement plan, or general risk checklists.

a. **Land Acquisition:** Delays in land acquisition and in providing an unencumbered right of way for the EPC Contractor can lead to delays in the start of construction resulting in the escalation of project cost. Additionally, the risk of the costs of acquisition not being contained within the estimates provided in the project cost estimates also increases **[Mitigated];**

b. **Delays in Project Development:** During the development phase, the critical activities identified are: Finalization of the project structure; Finalization of the contractual framework [Feedstock and Off-take Agreement, the EPC Contract, the Support Agreement, and the O&M Agreement]; Availability of requisite approvals and clearances; Achievement of Financial Close; Delays in project Commissioning. There are several permissions and approvals required from various Government agencies before the EPC Contractor is engaged. The risk exists that the procedure leading to these approvals before the engagement of the EPC Contractor will cause some delay;

c. **Project Completion Risk:** The project completion or contractor's risk refers to the possibility of non-completion of the project within the designated period from the notice to proceed. Any delays in the construction may be expected to result in increased construction costs. Some specific risks in this regard include p**roject Cost/Cost overruns** If the EPC Contractor is a unit rate rather than a fixed Lump Sum Price contractor, there is a possibility of increase in cost as compared with the current estimates;

d. **Non-Uniform Design Codes/Issues** Non-uniformity of design codes are deemed to be medium risk. However, mitigation is comparatively simple. To reduce the likelihood and consequence of occurring it is suggested that an initial high level review of the variances in the design codes discussed in the feasibility study stage should take place.

RISK ASSESSMENT

- **Technology:** This pertains to the risk that the project may be either physically inappropriate to handle the projected demand or is inappropriately designed to meet local socio-economic needs. Hence rectification of these design defaults could escalate O&M costs during the operations period;

- **Regulatory and Administrative:** During the operations phase, the delays and costs associated with complying with regulatory requirements of the Government, lenders and multilateral institutions can adversely impact the financial viability of the project. In particular, delays in toll notification will adversely affect cash flows, weakening the project debt service capability and investor's return;

- **Commercial Risk:** This category comprises various risks that are associated with the underlying economic rationale of the project. The project viability is critically dependent upon realization of demand as projected. Hence, any significant adverse variation from the projections would impair the debt servicing capability of the project;

- **Operations and Maintenance Risk:** In the event of the O&M costs exceeding the estimates used for the establishment of the financial viability, the residual cash flows for debt/equity would be lower than anticipated thereby affecting project returns;

- **Contract Volume Risk:** There is high contract volume risk in the project tat will have to be mitigated before decision to proceed. The fundamental economics dictate that the plant capacity utilization will have to be >60% for a significant duration of the project. To reduce likelihood and consequence of this occurring, first it will be necessary to engage with possible buyers/off-takers and achieve serious expressions of interest for products. Next, Lenders will want buyers to accept obligations [such as take-or-pay, or volume charge] that require payment by the buyers in all circumstances. Buyers, however, will not want to pay if product is not tendered, and will want low take-or-pay thresholds.

RISK ASSESSMENT

- The extent to which these positions can be reconciled, and volume risk mitigated to the degree required by lenders, will depend largely on the appetite for the parties to conclude a deal. If buyers are willing to accept take or pay or volume charge obligations, volume risk will be deemed to have been mitigated adequately;

- **Interest Rate:** The determination of project viability is predicated on the existing interest rate scenario prevailing in the country and LIBOR. A drastic increase in the interest rate scenario may affect the debt servicing capability [floating rate] through project cash flows;

- **Foreign Exchange Exposure Risk:** The project has significant foreign exchange exposure. Both the project financing and debt servicing obligations are denominated in USD. Without hedging, the project cash flows would be exposed to currency devaluation risk for products traded locally;

- **Inflation risk:** The base feedstock price of USD 200/tonne [PET] is a premium on existing post consumer feedstock prices and is expected to be stable over the 20-year period reviewed. Therefore, the project revenues and consequently the achievement of the designated rate of return would be adversely affected in case the inflation rate is higher than the assumptions in the financial model;

- **Termination Risk:** The risk pertains to the possibility of unilateral termination of the project operations prior to the achievement of the designated rate of return on frivolous grounds by Government;

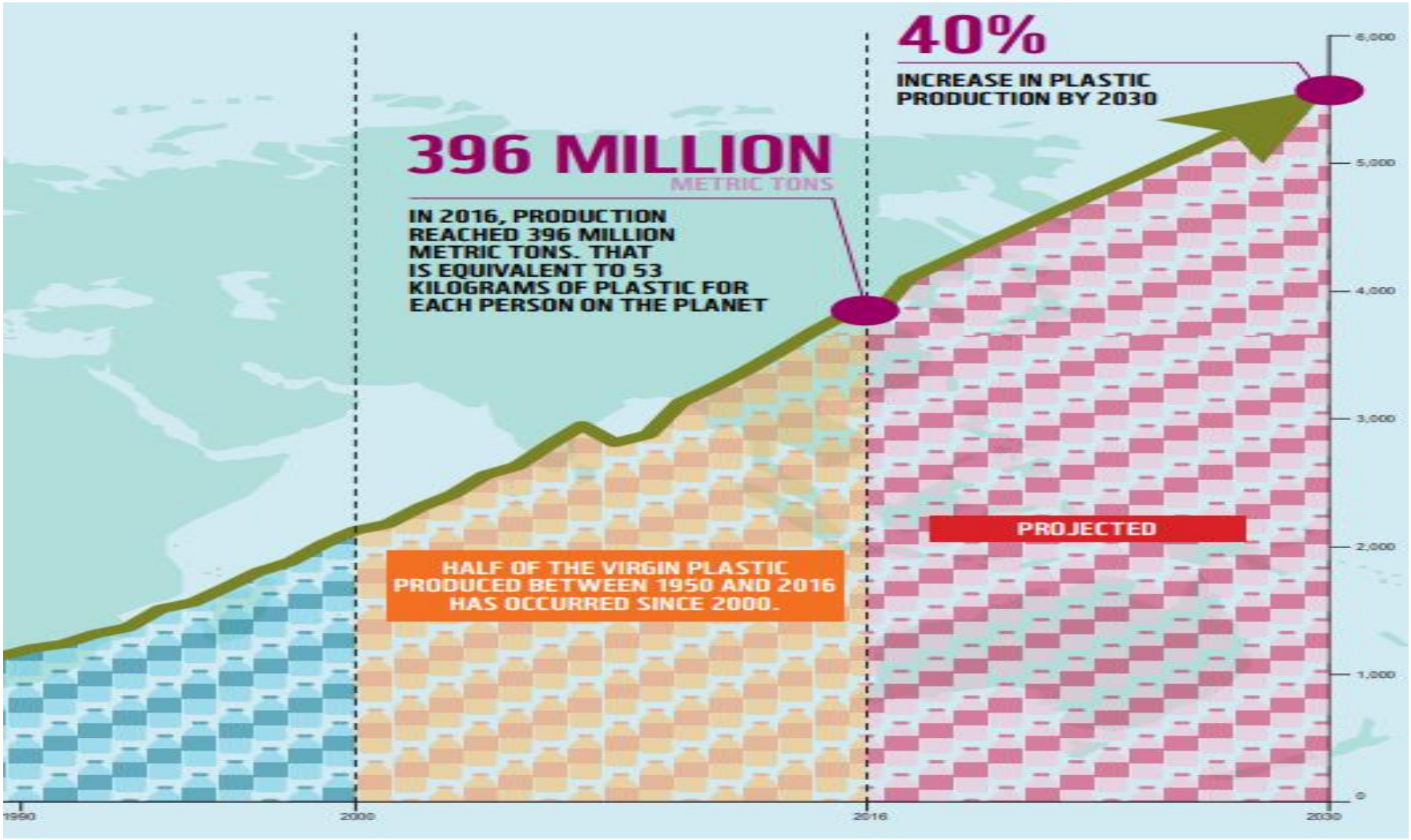
- **Force Majeure:** This risk category deals with non-political events of force majeure [Acts of God] such as epidemic, natural disaster, earthquakes, floods during construction and such other events. The impact of these risks on construction and/or project operation could range from minor to severe, say in a case of earthquake, where the damage may be severe enough to render the facilities irreparable;

RISK ASSESSMENT

- **Social Risk:** This is the risk that civil unrest or political problems may surface as a result of the project, manifesting in boycotts, sabotage, etc. Such disturbances may arise from several different concerns, public objection to imposition of tariffs, public discontent with the environmental impact of civil works or other features of the project. An event similar to the above could impair the ability of the sponsor to collect revenue thereby affecting project viability;

- Strategies to resolve or mitigate security issues and indeed, the security of the plant, therefore will involve a mixture of consensus building, community development, promotion of indigenous benefits and security in the traditional sense. Thus, local consensus building, to achieve tribal and community acceptance of the project, will therefore be necessary. The developer will be required to hold public meetings in all major places in order to build consensus;

- The benefits of the project will have to be sold to the local communities during these meetings. Employment of local workers is also encouraged, to the extent possible. Finally, the project sponsor, would also have to consider tangible development opportunities to maximize the visible project benefits for the local communities.



ECONOMIC OUTLOOK

NIGERIA ECONOMIC OUTLOOK

- The growing importance of services has bolstered growth in the economy. The sector accounts for about half of GDP, dwarfing the 10% from oil and 22% from agriculture. Real GDP growth was an estimated 1.9% in 2018, reflecting a recovery in services and industry particularly mining, quarrying, and manufacturing. The recovery benefited from greater availability of foreign exchange;

- Growth in agriculture was lacklustre, due partly to clashes between farmers and herders coupled with flooding in key middle-belt regions and continued insurgency in the northeast. On the macroeconomic front, the delay by parliament in approving the 2018 budget affected implementation and increased fiscal uncertainty by pushing the bulk of spending to the second half of the year. But thanks to oil revenues, a value added tax on luxury items, and a tax amnesty, the fiscal deficit narrowed in 2018, financed mainly by public debt;

- By June 2018, the stock of public debt stood at USD 73.2 billion, up from USD 71.0 billion in 2017, representing 17.5% of GDP. Despite the increase, Nigeria remained at moderate risk of debt distress. In November 2018, the government issued a Eurobond of USD 2.9 billion, which reflects its new debt management strategy of prioritizing foreign debt to mitigate the high financing costs of domestic borrowing. Furthermore, relatively strong oil receipts solidified the current account surplus to an estimated 3.7% and bolstered improvements in the terms of trade by about 13% in 2018 alone.

- Real GDP is projected to grow by 2.3% in 2019 and 2.4% in 2020 as implementation of the Economic Recovery and Growth Plan gains pace. However, the slide in oil prices from late 2018 coupled with an output cut imposed by the Organization of the Petroleum Exporting Countries poses a downside risk to the economic outlook. Parliament's approval of the 8.83 trillion naira

2019 “budget of continuity” may also be delayed due to presidential elections scheduled for February 2019.

NIGERIA ECONOMIC OUTLOOK

- The outlook depends on the pace of implementing the Economic Recovery and Growth Plan, that anchors Nigeria's industrialization by establishing industrial clusters and staple crop processing zones to give firms a competitive edge through access to raw materials, skilled labour, technology, and materials;

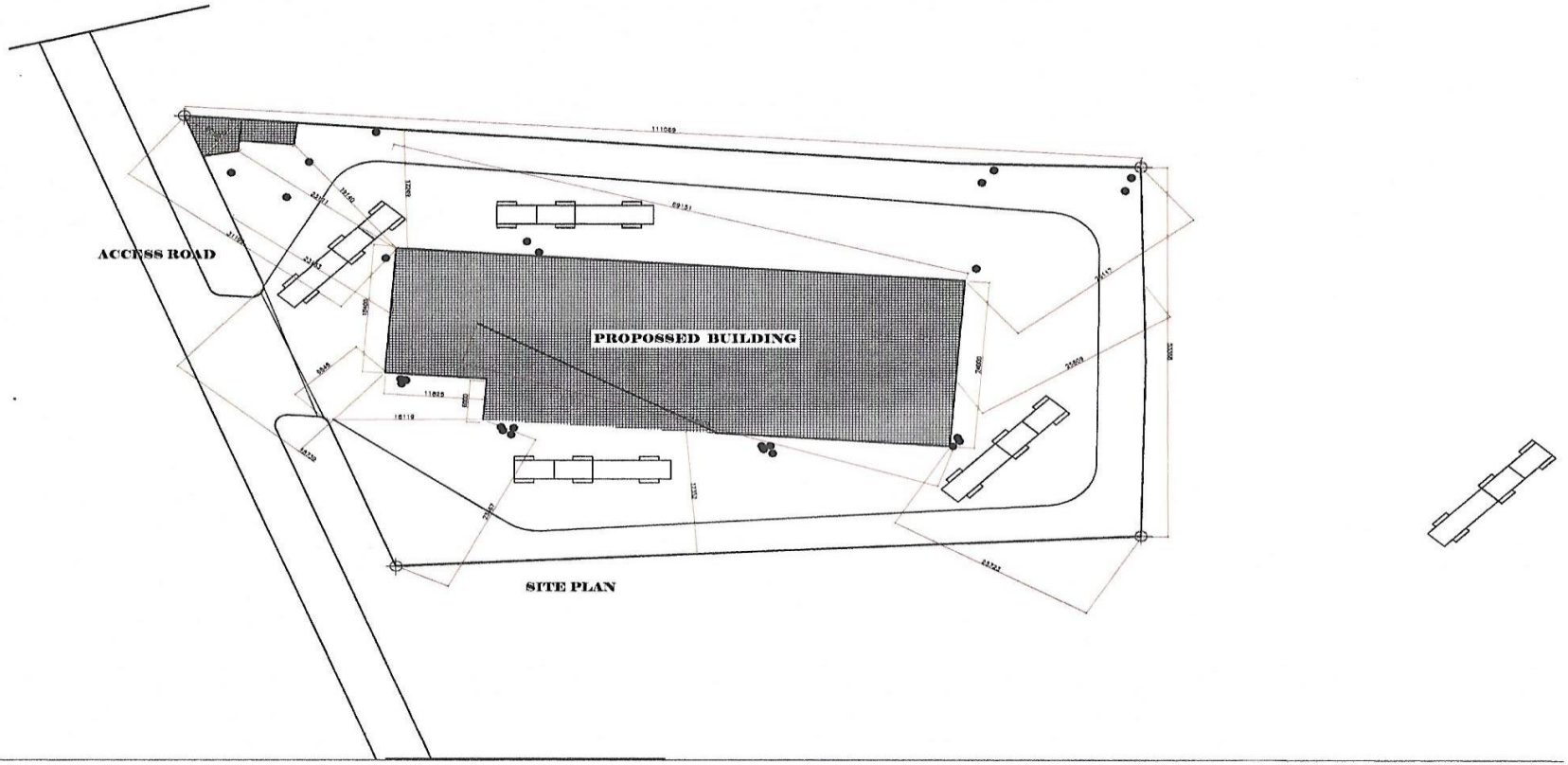
- The Power Sector Reform Program, if effectively implemented, could attract private investment. It targets 10 GW of operational capacity by 2022. But Nigeria needs to reorient its federal budget, currently dominated by recurrent spending, toward more capital expenditure and accumulating savings to sustain social spending;

- The Federal Government has made strides with institutional and governance reforms, including implementation of the Integrated Financial Management and Information System and the Integrated Payroll and Personnel Information System. The enactment of the Secured Transactions in Movable Assets Act 2017 has institutionalized and widened coverage of collateral to stimulate lending to small and medium enterprises. Although Nigeria has a relatively low debt-to-GDP ratio, there is need for fiscal prudence to avoid a debt trap, especially as global interest rates start to rise. Therefore, contraction of new external debt should balance spending needs with capacity to improve the economy's competitiveness and stimulate growth;

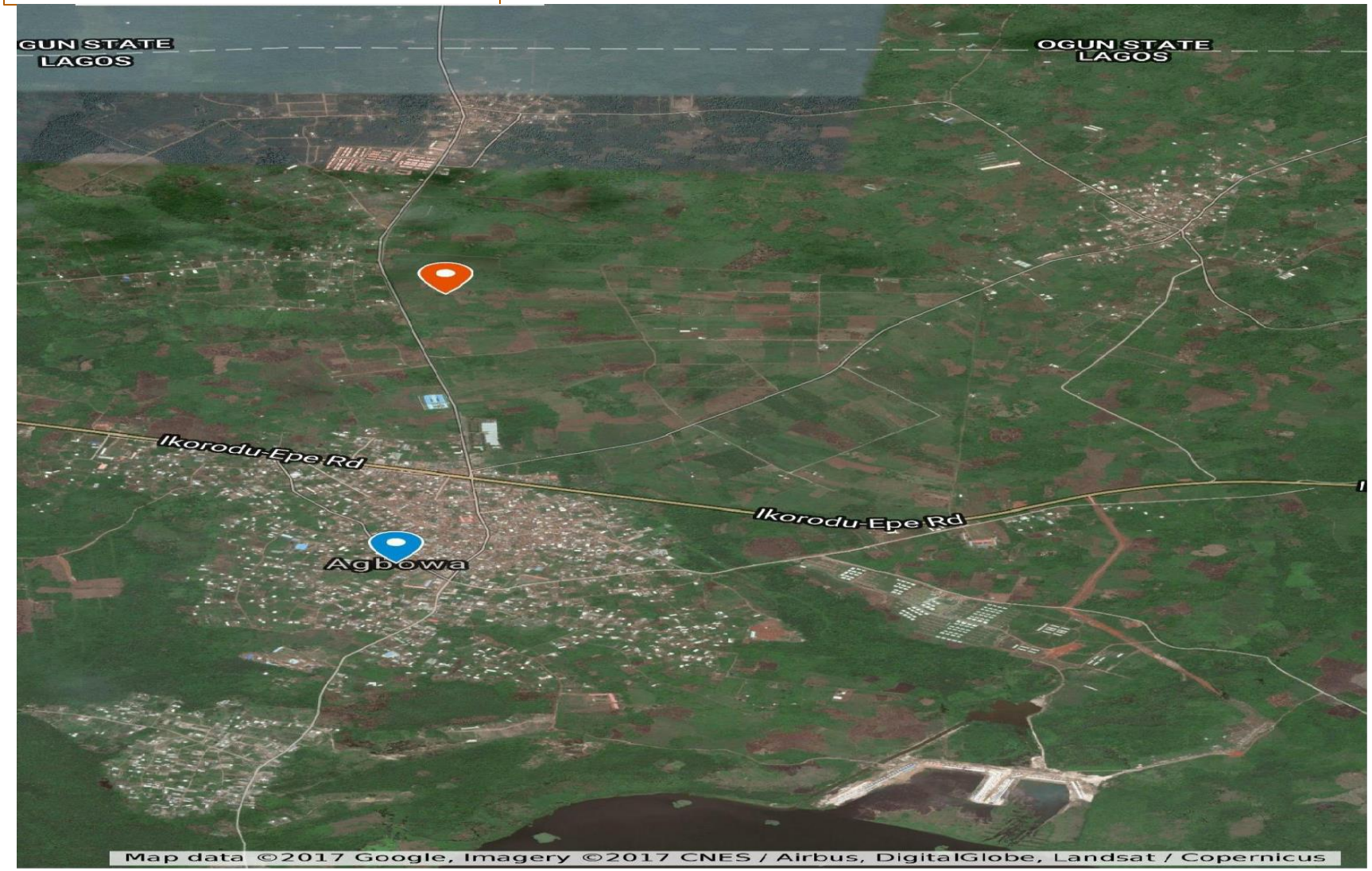
- Nigeria accounts for nearly 20% of continental GDP and about 75% of the West Africa economy. Despite this dominance, its exports to rest of Africa are estimated at 12.7%, and only 3.7% of total trade is within the Economic Community of West African States.

Nigeria has yet to ratify the Continental Free Trade Agreement, pending the outcome of broad consultations with captains of industry and other stakeholders.

PROJECT SITE PLAN



PROJECT SITE LOCATION



Google Map Pin: https://goo.gl/maps/K2NsxJ3srrhXU3rP

ABOUT 3E POWER AND LOGISTICS SERVICE LIMITED - ADVISOR

Collaborations and partnerships can make a significant difference. They can unlock much more than cost savings, they can also bring in expertise and efficiency, thereby ensuring deadlines are met, costs are controlled and success is delivered. 3E Power and Logistics Service Limited was incorporated in January 2012, as a Special Purpose Vehicle with a mandate to identify ways to deliver new infrastructure and get more out of existing assets in Sub-Saharan Africa. The firm is registered under all applicable laws of the Federal Republic of Nigeria with Corporate Affairs Commission Registration Number RC: 1006750 and Tax Identification Number [TIN]: 14253602-0001.

MISSION STATEMENT

To become a strategic partner to both Government and Non-Government organizations, and the entire Energy, Transportation and Healthcare Sectors we serve. As our name implies, Economies of Scale, Efficiency of our business operation and processes, conservation of energy and environment are our guiding principles.

VISION

Our vision is simple, to become leaders in world class services while working in a very dynamic and positive global environment. Our success is derived from the commitment that we have towards our customers, employees and community through innovation and strategic partnerships and collaborations to achieve more and reach further.

WHAT WE DO

Plan

From cost modelling, risk planning, feasibility studies and logistics to environmental impact assessment and full life cycle assessment, stakeholder engagement activity, we carefully and systematically plan our developments and client projects.

Design

The design of intellectual capital such as management systems and business processes is a unique expertise which the company has, and is readily available for dissemination to the industries we serve and its stakeholders.

Enable

The management of people, projects and issues, are also addressed using the extensive knowledge and skill base of the firm. This is to ensure deadlines are met, costs and quality are controlled and success is delivered in an efficient and effective way.

OUR SERVICE – PROJECT DEVELOPMENT

STAGE/MILESTONE	DESCRIPTION
Origination	Existing data analysis, Site Identification, Memorandum of Understanding/Letter from Government
Inception	Pre-feasibility studies analysis [technical, environmental, financial, legal/regulatory] Preliminary financial model, initial development plan/budget
Structuring	Detailed feasibility, licenses and permits [environmental, generation, interconnection, long term contractual revenue contracts], preparation of engineering design and EPC/O&M procurement package, Local SPV establishment, legal/regulatory/tax structuring
Contracting	Negotiations, Implementation/Concession Agreement, Government Guarantee, Land rights secured, other project procurement, negotiation and signature [LTSA etc.]
Financing	Equity & debt secured, PIM/marketing materials preparations, bankable financial model finalisation, lenders term sheets, lenders due diligence, insurance package , project agreement amendments, finance and security document negotiations
Closing and Start of Construction	Lenders final board approvals, signature of finance documents, CP satisfaction, debt and equity investment/disbursement
Construction	LNTP/NTP issued, draw-down management, asset management for SPV [accounting, reporting, general management, construction management, O&M integration management]
Operation and Exit	Asset management [accounting reporting], O&M oversight, Contract management, Exit strategy formulation and execution

DISCLAIMER

The purpose of this Investment Teaser is to provide prospective investors and financiers with information that may be useful in their assessment of investment opportunities in the proposed 160 tonnes/day MSW processing and 100 tonnes/day PET Recycling Facility [the "Project"].

The information contained herein has been prepared to assist interested parties in making their own evaluation of the Project and includes statements, which reflect various assumptions and assessments arrived at by the Transaction Adviser and Sponsors in relation to the Project. Such assumptions, assessments and statements do not purport to contain all the information that investors or financiers may require. The assumptions, assessments, statements and information contained in this Investment Teaser may not be complete, accurate or adequate. Interested parties should conduct their own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this Investment Teaser and obtain independent advice from appropriate sources.

Information provided in this Investment Teaser is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The Transaction Adviser and Sponsors accept no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

The Sponsors, its agencies and advisors make no representation or warranty and shall have no liability to any person, including any Investor or Financier, under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this Investment Teaser or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the Investment Teaser and any assessment, assumption, statement or information contained therein.

The Transaction Advisor also accept no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any investor or financier upon the statements contained in this Investment Teaser.

REFERENCE

- **International Energy Agency** [Future of Petrochemical - Towards Sustainable Plastics and Fertilizers 2018];
- **African Development Bank** [Africa Economic Outlook 2019];
- **World Wild Life** [Solving Plastic Pollution Through Accountability 2019];
- 3E Power and Logistics Service Limited - 2019 [Preliminary Financial Analysis and Evaluation];
- **UNEP [2018]** Africa Waste Management Outlook;
- **World Bank Group** [2018] What A Waste 2.0 – Snapshot of SWM To 2050