

Securing Our Future

2016 Sustainability
Report





Our Sustainable Footprints

ABOUT THIS PUBLICATION

This is the Second Sustainability Report for Egbin Power PLC.

The Data in this report covers the period of January, through December, 2016.

Financial Information is given in U.S. dollars and Nigerian Naira. This report was prepared using the new Global Reporting Initiative (GRI) Standards, which is an upgrade of the GRI G4.1 Reporting Guidelines. The mission of the GRI is to promote international harmonization in the reporting of relevant and credible corporate economic, environmental and social performance information to enhance responsible decision making. The GRI has not verified the contents of this report, nor does it take a position on the reliability of information reported herein.

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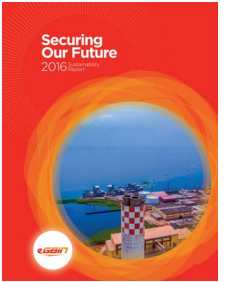
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Egbin Sustainability Report 2016

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Introduction

IN THIS SECTION

Board Chairman's Message

CEO's Message



BOARD CHAIRMAN'S 's MESSAGE



Kola Adesina
Chairman, Board of Directors
Egbin Power PLC.



In 2016, Egbin Power Plc became the first company in the power sector to publish a sustainability report. The sustainability report provided information relating to the company's efforts in ensuring the satisfactory management of the assets, operations and relationships towards transparency and building a sustainable future.

Though 2016 was quite a challenging year, our commitment towards ensuring sustainability remained a key focus for the company's strategic outlook. This year's reports provide the additional steps and initiatives that have been undertaken by the company in line with the following priorities:

1. Economic Overview
2. Investments towards a sustainable future
3. Technical Services Strategy
4. Sustainability footprints
5. Outlook for the future

Economic Overview

The economic recession experienced throughout the nation seriously affected our business operations for the reporting period. As a result of this, the company received only about 20% of its revenue based on the total amount of invoices presented to our power off taker.

In addition, the difficulty encountered in the money market resulted in a regime of high interest rates there reducing the capacity to secure needed funding towards meeting all our obligations, coupled with the inability to receive full payments for our invoiced services, meant that the Company had to operate by allocating scarce resources to priority operational activities. Also, the volatility of the foreign exchange market which resulted in the scarcity of foreign exchange was another major limiting factor towards ensuring that the company fulfilled its obligations.

“ Though 2016 was quite a challenging year, our commitment towards ensuring sustainability remained a key focus for the company's strategic outlook.

The company experienced a significant drop in its gas supply to the plant due to the rampant acts of vandalism on gas installation across the country. Furthermore, we experienced some constraints in the company's ability to evacuate generated power which led to losses during the year.

Also, during the year, there was a brief gap in the office of the regulators for the power sector, due to delays in the appointments of some of the key stakeholders in the regulatory office. This resulted in a period where there were gaps in making certain critical decisions relating to the sector as a whole. By and large, there was a shortfall in the level of revenue between 2015 and 2016 reporting years.

Investments Towards a Sustainable Future

In 2016, the company took significant steps towards the implementation of the proposed investment plans reported in the 2015 sustain-

ability report. A major step was the approval of the Board of Directors of the appointment of a technical team to conduct a feasibility study towards determining the viability, profitability and sustainability of the proposed Egbin Phase 2 project with an estimated capacity of between 1,350MW - 1800MW.

Also approved by the Board was the appointment of the EIA (Environmental Impact Assessment) consultants to conduct an Environmental Impact Assessment (EIA) for the project. The EIA is a process that involves the evaluation of the likely environmental impacts of the proposed project or development, taking into account inter-related socio-economic, cultural and human-health impacts, both beneficial and adverse.

Concurrently, there are plans towards investing in an industrial park. This initiative will help boost the economy of the local community in which we operate, through the creation of job opportunities and strategic

COMMUNITY INVESTMENT



Egbin Industrial Park

There are plans towards investing in an industrial park, Which will help boost the economy of the local community



Scholarship Programs

During the year, we commenced a Scholarships program to reward students from the indigenous communities in which we carry out operations.

infrastructural developments. During the year, we commenced a Scholarships program to reward students from the indigenous communities in which we carry out operations. The Scholarship Scheme covers the cost of educating gifted children from the host communities. We have continued to donate anti-malaria supplies to the local hospitals that cater to the host communities as part of our efforts to improve the local community in which we operate.

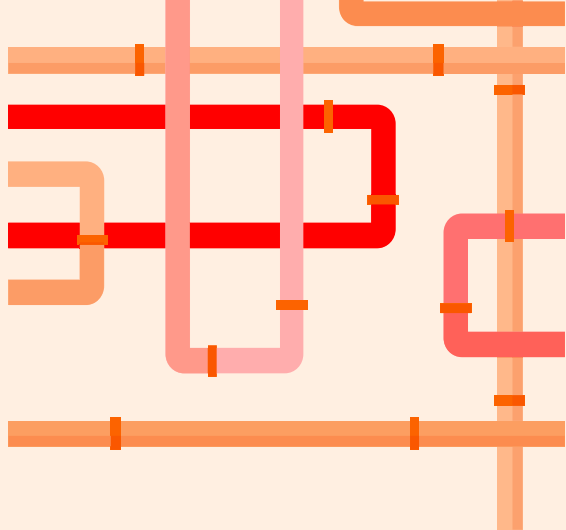
Technical Services Strategy

The economic recession during the year brought with it a number of challenges. One of the major challenges faced was the issue of liquidity due to difficulty in receiving payments for invoiced services. As a result of this, we had to realign our technical service strategy with our technical partners Korea Electric Power Corporation (KEPCO).

The realignment brought about a reduction in the number of technical personnel from the KEPCO in Korea. However, the reduction did not affect the operations of the power plant, but provided the company the opportunity to assess the technical development intervention and trainings with respect to the expectations of the terms and conditions of the technical service agreement for manpower development. The realignment has helped to showcase the technical capabilities of our in-house engineers and also highlighted areas for further learning and development interventions needs which will further benefit the company in the long run towards achieving our sustainability objectives.

Sustainability Footprints

In our continuous effort to be the provider of choice where Energy is concerned, we are investing contin-




SUSTAINABILITY EFFORTS

1350 - 1800 MW

Egbin Phase 2 Project
Planned Liquefied Natural Gas (LNG) project to add additional capacity of 1,350MW & 1800MW to the grid.

450 MW

PRODUCTION COMMITMENT
Partnership with Lagos State Government on "LIGHT-UP Lagos Project."



uously in human capital and we are evolving from the traditional organisational system. This is evident from our planned investments in additional gas pipelines, and the proposed Liquefied Natural Gas (LNG) project, Egbin Phase 2 project with an estimated capacity of between 1,350MW and 1800MW.

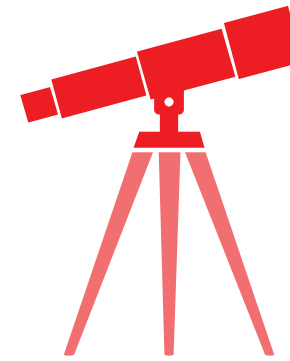
In addition, we are considering working with the TCN to identify key inhibitors in evacuating the power for us. Furthermore, we are proud to be working together with the Lagos state Government and other West African countries, to identify and enhance opportunities for power evacuation. For its "Light-Up Lagos" project, the Lagos State Government requires 450MW from us. The current administration is proposing on

collaborating with Egbin Power on a Bilateral Agreement. So, this gives us the opportunity to work with the government to achieve efficiency.

Outlook to the Future

As an organisation, the strategy is to continually improve on our efficiency through cost reductions in operations, increased investments in research & development, renewable energy and embedded generation technologies. We have already begun exploring embedded generation through our partnership with the Lagos State Government "Light-UP Lagos" project.

As part of our commitment to the Nigerian power sector, Egbin Power Plc, in conjunction with other stake-



FUTURE OUTLOOK

“As an organisation, the strategy is to continually improve on our efficiency through cost reductions in operations, increased investments in research & development, renewable energy and embedded generation technologies.”

holders have set in motion a train of thought for a holistic plan to revive the sector. This plan will help to ensure that the power sector operators put in place various resolution mechanisms to deal with critical challenges with the system which will invariably lead to increased generation capacity. As a company, we would internally develop our systems towards supporting this plan under the following key components:

- i. Operations Management
- ii. Regulatory Framework
- iii. Corporate Governance

Operations Management:

We would ensure continuous improvements in the administration of business practices in order to create the highest level of efficiency possible within an organisation. As such where all market participants manage their assets with the highest efficiency levels possible, they will be able to maximize their profit. Egbin Power Plc. as the largest generation company will continue to strive to maintain that status through our operations management competencies and the quality of our employees.

Regulatory Framework:

The Regulatory Framework is a fundamental prerequisite for the sustainability of the power sector. Such a framework supports the direction, control, and/or implementation of certain courses of action,

rules, principles and/or law. As such, the Regulatory Framework in the Nigerian power sector needs to be effective and consistent to ensure stability in the sector. The Company will continue to support the regulatory authorities towards providing the needed guidance for the sector and remains committed to the laws and regulations that govern the operations of the business.

Corporate Governance:

In line with the expectations of the power sector code of corporate governance, the company is committed to ensuring that the systems of rules, practices and processes by which the company is directed and controlled are in adherence to the code. The success of the company is dependent on good Corporate Governance practices. In alignment with international recommendations and best practices on governance, Egbin Power Plc. commenced the implementation and operation of a Corporate Governance Framework in the year 2016. In 2016, we also commenced the practice of Sustainability Reporting which is our organisational report that provides information about our economic, environmental, social, and governance performance.

Conclusion

In conclusion, Egbin Power Plc. will continue to take all necessary steps to achieve business sustainability. As soon as a clear path is set by the



“We are committed to the delivery of stable electricity in Nigeria and remain resolute in our efforts to achieve same.”

power sector regulators for the improvement of the capacity of power sector assets, we intend to embark on certain strategic investments with the aim of increasing power supply to the National Grid and our immediate environment.

Despite the obvious challenges currently being experienced sector-wide, we are committed to the delivery of stable electricity in Nigeria and remain resolute in our efforts to achieve same. To this end, we will continue to work closely with all the stakeholders in order to take the sector to greater heights.

Thank you.
Kola Adesina
Chairman, Board of Directors
Egbin Power PLC.

CEO's MESSAGE

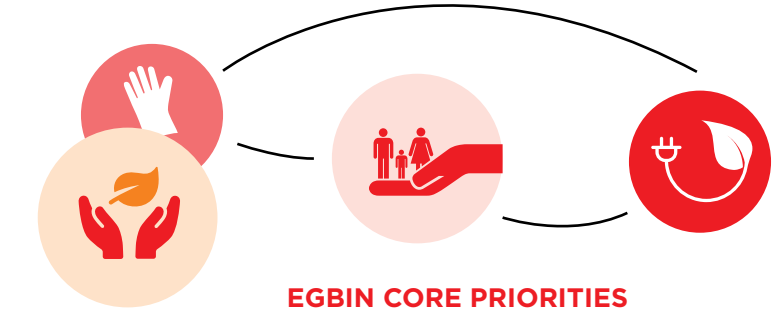
The 2016 Sustainability Report for Egbin power Plc is the second edition of our annual report on the economic, environmental and social impacts of our business, following the transition from a government owned and managed organisation to one owned and managed by private investors since November 2013.

This report provides insights into our corporate responsibility and stakeholder engagement activities, as well as areas of achievements and existing/potential concerns regarding our business operations. The report has sufficiently captured major milestones and concerns, providing guidelines to the strategic initiatives that have been conceptualized and developed over the last three years since takeover of the business operations. This was done in a bid to ensure that we operate responsibly despite the myriad of challenges associated with the transition from a government managed business to one that is managed by private investors and stakeholders.

Core Strategic Priorities

Our three core strategic priorities are Safety and Environmental Compliance, Employees and their Welfare, and Sustainable Quality Power Generation.

For Power Generation, the Egbin Key Performance Indicators are based upon Availability, Capacity and Efficiency. Current Availability of our power plant is guaranteed at 85% but has achieved up to 92%. The current Capacity achieved is approximately 92% and has reached up to 95% of the 1320MW obtainable. Our main challenges in 2016 include the continuing gas constraints and inability to evacuate generated power. These challenges are affecting the efficiency of the plant, and when there is less efficiency/availability or



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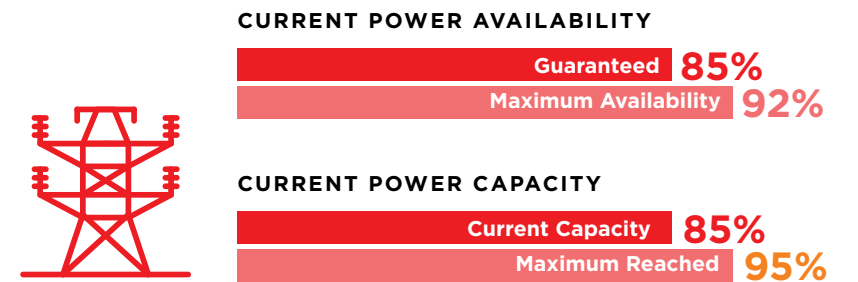
capacity, it will affect the successful Rate of Return and Return on Investment. When those two things are affected, it affects our capability to sustain the plant successfully.

Our strategic priority is to address each of these issues both independently and collectively. However, our priority and greatest concerns are always the Safety and the Well Being of our Employees. These issues (gas constraint & evacuation) do not only affect our business but are also one of the major aspects of running any business like Egbin Power. Our strategic aim is to improve on these issues to achieve sustainability. We have also strategized ways of improving those challenges by rendering assistance to Transmission Company of Nigeria (TCN) in the ability to evacuate the power being

generated, to help us by helping them identify the bottle neck points in their systems whether through funding for maintenance projects or equipment upgrades to empower the system to be able to evacuate more power.

Also, on the gas constraints our short-term goal is to identify additional sources of fuel supply. The other is to begin to identify all other opportunities such as a floating LNG project which is another fuel source, creating additional pipelines to bring additional gas supply into the plant. This will ensure that we have other alternatives for gas supply and not just gas supply from the Nigerian Gas Company (NGC).

For long term goals, we look forward to generating additional means



Dallas M. Peavey Jr.
Chief Executive Officer
Egbin Power PLC.



of fuel supply and Technological Advancement within the plant; so that we can then utilize those resources we have identified in the medium-term goals to bring about long-term success. Example of such long-term project is the construction of "Egbin Phase 2". We intend to build a new plant, which will double the capacity of the existing plant and utilizing less gas. It will be more efficient, more available as well as increased capacity. These are propelled to meet our goals and to sustain the future for Egbin, because the future means growth and growth means sustainability.

However, after all these needs are being met - gas constraint, evacuation of power and technological advancement, it is pertinent we invest in Human Capital Empowerment to enable us meet up with the technological advancement. So, there will be continuing and evolving investment in human capital.

Key Events, Achievements and Failures in 2016

In 2016, we had to realign our technical service strategy with our technical partners, Korea Electric Power Corporation (KEPCO) because of the economic recession. We also experienced gas supply and transmission challenges which had some impact on our business.

Due to the economic challenges experienced in 2016, we were unable to achieve what we were expected to achieve based on our business projections. The challenges resulted to us not being paid for the power we generated and sold to the grid, and this affected our return on investment and you cannot develop a business if you are barely sustaining the business.

Notwithstanding the foregoing, our in-house engineers have been able

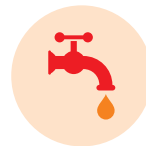


EDUCATION

26 Fully Paid Scholarships



We also provide boreholes, housing, improvement and scholarships; we provide twenty-six (26) fully paid scholarships every year to our schools for the local area communities.



to successfully carry out basic operations and maintenance functions in the absence of KEPCO due to level of learning and development embarked upon over the period since the change in management.

With the challenges experienced in 2016, we remain positive and we definitely see the light at the end of the tunnel. We are also optimistic that our gas supply will significantly improve. The Federal Government of Nigeria along with all other stakeholders are proposing ways on improving transmission to allow for more evacuation. Thus, if we can address these two issues, we would be able to improve our performance from 30%. It is important to note that, for us to be able to sustain ourselves we need to generate a minimum of 600MW. Those are the key indicators that will enable us to meet our targets for 2017.

Our Commitment Towards Building a Sustainable Organisation

In our continued journey towards building sustainability, we are also evolving from a labour intensive organisation to a capital, engineering, highly skilled work force. It is important to emphasize the fact that 60% of our employees would be retiring in the next 3 to 5 years and they will be replaced subsequently with young, vibrant and technical expertise work force.

Our General Management and Organisational Approach

Environmental



We have over the last few years doubled the number of women leading strategic functions in the technical, engineering and administrative departments at Egbin.

Consciousness

One of our core values is to ensure all our operations are environmentally friendly. Therefore, the company has adopted several preventive measures to ensure a Zero Spill Compliance. We are very concerned with the local environment, and are compliant with all Environmental Regulatory policies.

Corporate Social Responsibility (CSR)

We continue to promote and provide for the local area community. We do this by providing free power, drugs/medicine and treatment to local hospitals. We also provide boreholes, housing, improvement and scholarships; we provide twenty-six (26) fully paid scholarships every year to our schools for the local area communities.

Gender Diversity

In the last year, we have implemented policies and programs which demonstrate that we are gender neutral, in the sense that we are more concerned about the value a person brings rather than gender.

We have over the last few years doubled the number of women leading strategic functions in the technical, engineering and administrative departments at Egbin.

Financial Capacity

We have entered into various partnerships with different financial institutions in the Country towards ensuring business sustainability. These partnerships have come about based on our collaborations with the Federal Government in the forms of guarantees to ensure that the needed capital and/or financing will

be available to enable the plant to generate and evacuate the needed power to the National Grid.

We also have regulatory bodies such as Nigerian Electricity Regulatory Commission (NERC), Bureau of Public Enterprises (BPE) that attest to the fact that we are compliant with all relevant regulations. NERC has rated us number one in Power Generation, Efficiency and HSE; and above all, the government has full confidence in the Company's ability to deliver on the much-needed power generation required for infrastructure and social development.

Dallas M. Peavey Jr
Chief Executive Officer
Egbin Power PLC.



Profile

IN THIS SECTION

- Our Vision**
- Our Mission**
- Our Core Value System**
- Corporate Governance**
- Business Framework**
- Board of Directors**





The Egbin power station is owned by Egbin Power Plc and remains the largest thermal power generating plant in Nigeria. We are located at the heart of a small town called Egbin in Ikorodu Local Government Area of Lagos State, Nigeria.

Egbin supplies about 20% share of electricity to the National Grid consumed by residential, commercial and industrial electricity consumers in Nigeria, making it the largest provider of electricity generated for consumption across Nigeria.

Having acquired 70% shares of Egbin Power Plc in 2013 through a special purpose vehicle - KEPCO Energy Resource Limited (KERL), Egbin Power Plc was handed over to the preferred investors by the Federal Government of Nigeria through the Bureau of Public Enterprises. The asset has been optimally managed with international best practices since November 2013 till date.

Egbin continues to operate six Hitachi steam turbines, one GE gas turbine and one emergency diesel generator with installed capacities of 1320MW, 24MW and 1.5MW.

We operate a closed cycle thermal system where water is sourced from deep wells that are located about three kilometers from the facility. Considering the fact that water is critical to the sustainability of our business operations, we have made it a point of duty to ensure that we conserve the use of by drawing up only minimal quantities of water from the aquifers.

Pumps are used to pressurize the water to transport it to the water treatment plant where the ground water is treated to become potable and fresh water. The fresh water is further treated in the demineralization plant where it goes through a series of resin vessels including anion, cation and mixed bed. The treated



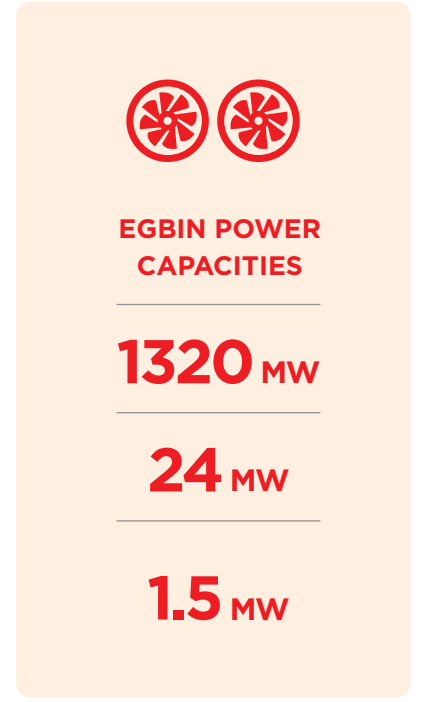
water which becomes demineralized water is pumped into the 705tons/ hour steam generator, also known as boiler.

The steam generator heats the demineralized water in a series of convoluted tubes to steam at the required temperature and pressure of 541oC and 12,500KPa respectively. The steam in this condition is superheated and is conveyed to the steam turbine through lagged pipes. Accordingly, the steam turbine is divided into three - high pressure, intermediate pressure and low pressure turbines, with all the turbines including the electrical generator on the same shaft coupled together at different points.

The expansion of the turbine, allows the steam to flow into the condenser where it is cooled by lagoon water to become condensate. This process starts power generation cycle where the condensate is pumped through a series of low and high-pressure heaters in order to increase the temperature of the feed water before it enters the boiler.

Using a state of the art hydrogen plant, Egbin produces hydrogen from an electrolysis process. The hydrogen produced has high thermal

conductivity required to absorb the heat generated when electromotive force is induced in the electrical generator. Consequently, the high heat transfer from the generator windings ensures an efficient generator level of about 98%. This high efficiency at the generator enables Egbin to wheel out more power at the most cost effective rate for a steam power plant.





Our Core Value System

Feedback from our stakeholders say that Egbin Power Plc are guided by values and principles which are not only needed to engage better with the economy, society and environment, but are required to create a vibrant power industry in Nigeria where operations are in line with international best practice.



Corporate Governance

The Institute of Directors, Nigeria defines corporate governance as the structure through which an organisation is directed, controlled and held accountable. It defines a framework of rights, responsibilities, procedures and relationships amongst the various stakeholders of an organisation, including its directors, managers, shareholders, regulators and other stakeholders.

Corporate governance is the principles and processes that guide the conduct of the affairs, business operations, ethics, norms and values, service delivery, and customer relations of Egbin Power Plc.

Globally, it is a well-known fact that the sustainability of any company comes about where organisations have put in place policies, processes and procedures which will guarantee fairness, accountability, responsibility, transparency, and efficient risk management.

Following on this, Egbin has established corporate governance structures to enable the effective implementation of the company's strategies, policies, processes and procedures. In Egbin Power Plc, it is a shared knowledge amongst the entire workforce - from the board of directors to the chief executive officer, senior manage-

ment team and all employees, that the success of our company depends largely on well-articulated corporate governance frameworks, policies, processes and procedures that engender transparency in all aspects of our electricity generation business.

Furthermore, in ensuring sustainable operational excellence in a regulated power industry, the need to be transparent in our business operations so as to better engage our external stakeholders cannot be over-emphasized. This necessitated the creation of internal control mechanisms to reduce business risks to the barest minimum, with the resolve to eliminate them in the near future.

“Egbin has established corporate governance structures to enable the effective implementation of the company's strategies, policies, processes and procedures.

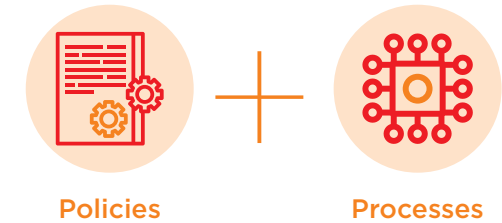
governance guidelines, code of ethics, business principles and human resource policy.

Underscoring the importance of corporate governance to Egbin Power Plc as a business, is the fact that the company's board of directors does not only formulate and approve the broad corporate governance framework and ensure that the organisation makes effective decisions which are consistent with its strategic objectives and mission, it is also deeply involved in the implementation of the instituted framework. This it does through its audit, risk and governance committee; finance, investment and general purpose committee; and technical and operations committees.

Business Framework

At the heart of Egbin's power generation business setup is the customer. We have resolved to ensure that all our activities and business operations are focused on satisfying the consumers of the power that we generate. Even as we face several challenges in the electricity market ranging from gas constraint to limited power transmission capacity of the national grid; illiquidity challenges; debts; amongst others, the Federal Government of Nigeria and the regulator of the industry - Nigerian Electricity Regulation Commission (NERC), we continuously and progressively review the measures in place targeted at surmounting the challenges and making the Nigerian power sector a strong vibrant market.

In our quest to ensure the sustainability of our power generation business, we have mapped out our organisational goals and strategies and set out implementation plans through policies, processes and systems to enable the company succeed in the current challenging business environment. Our strategy to address the issues has two dimensions - independently and collectively. On our part, we have identified other sources of fuel supply whose fuel may be fired in our boilers to produce power. Liquefied natural gas is one of the fuels we are considering piping to our facility in order that the dependence on the single gas line of the Nigerian Gas Company - our current gas supplier, may lessen. Cooperation with the players in the industry is another approach we are taking to help proffer solutions in the electricity market to the several challenges that hamper growth in the sector. We have charted ways by which we could render assistance to the Transmission Company of Nigeria



“In our quest to ensure the sustainability of our power generation business, we have mapped out our organisational goals and strategies and set out implementation plans through policies, processes and systems to enable the company succeed in the current challenging business environment.

so as to improve their ability to evacuate the power been generated. This assistance may be in form of funding for maintenance projects or equipment upgrade.

The power industry in Nigeria is a firmly regulated sector that involves several players who work together to deliver electricity to the consumers at a cost reflective tariff. Therefore, Egbin continue to play its part as a power generation company (GENCO) ensuring industry improvements, whilst complying with the Electric Power Sector Reform Act of 2005, regulatory guidelines, code of corporate governance and policy statements of the Federal Ministry of Power, Works and Housing. Our determination to carry out power generation with our core values (SPICES), which includes sustainability, has enabled Egbin to adopt international best practice in all its areas of operations. Accordingly, we operate in compliance with the highest operation, maintenance and safety standards that are currently applied in any modern power sta-

tion in the world. Although, we recognize that we need to continuously perform expensive overhauls and innovation to stay competitive in the business of electricity production and delivery, we have set the ball rolling by instituting systems, policies, processes and procedures that will manage the human capital and intellectual capacity required to secure the sustainability of Egbin power station.

Sustainability of a power station cannot be achieved without the cooperation of the players in the industry and the stakeholders that ensure smooth operation. Wherefore, we understand the level of collaboration needed amongst industry players in all part of the value chain, to promote the growth and development of the electricity sector. This has made our company take necessary steps to work more with the Transmission Company of Nigeria to assure more power evacuation and better engage with our vendors and suppliers so as to create a sustainable supply chain management system.

PLANT OPERATIONS & MAINTENANCE



Towards achieving the company's objectives, the boiler maintenance section is tasked with ensuring the availability of the steam generator and its auxiliary equipment for the production of high quality steam at varying load demands to produce electricity. The efficient operations of the boiler section ensure Egbin remains the provider of choice where energy is consumed.

At Egbin, safety is at the core of the company's operations towards maximizing generation output and the preservation of all resources for business sustainability. The short, medium and long-term sustainability of our power generation business could face major difficulties where we fail to ensure a healthy workforce, environmental conservation and effective maintenance culture for the high technical equipment used by the plant. Hence, ensuring a safe and healthy work environment underscores the sustainability of the operations and maintenance of the plant.

In ensuring the safety of personnel, plant and environment, the boiler section like all other departments of the company have put in place a system of conducting daily toolbox meeting emphasizing the safety goals of the company. This system ensures that all forms of safety challenges are discussed and addressed and takes into consideration that all members of the team must contribute to the safety discussion. These

safety talks help provide reminders on hazards and known means of prevention such as precautionary actions on site, hazardous materials handling and use of personal protective equipment. It becomes necessary at times to remind engineers and technicians that hazard and accident prevention is not limited to the use of PPE, but is highly influenced by conscious efforts to engage in safe practice. With this sort of important activity, the risk of shutting down the turbines due to injury, losing an employee because of fatal accident or damaging very expensive equipment is significantly reduced, while carelessness or unawareness that could have led to accidents in this high risk environment are substantially dealt with.

Housekeeping is a health and safety concern as dirt and improperly placed materials could cause harm to health, accidents, equipment malfunctions and environmental pollution. For instance, an oil spill on the floor in the process of topping up the level in certain equipment could pose a tripping hazard. Also, waste materials could cause skin irritation, respiratory diseases and toxicity. Improperly disposed wastes could be an eyesore, breed germs, get washed into water bodies, cause foul odour and be a breeding place for some dangerous animals. Improperly stored tools and materials pose hazards also. Housekeeping efforts aim to identify where waste is gathering or items are out of order and restore these areas to reduce risk. Areas where housekeeping is



“ At Egbin, safety is at the core of the company's operations towards maximizing generation output and the preservation of all resources for business sustainability.



carried out include the stores for tools and materials, equipment and surrounding areas, aisles and stairs in the zone of boiler plant. The continued target is the improvement in the structure of housekeeping and inventory such that available stock, stock requirements, required areas of use are known at any time, and cleanliness of the boiler environment is maintained.

Previously, due to several constraints such as low awareness level, testing equipment unavailability and noncompliance, tests were not duly carried out when confined spaces were exposed for entry. Even though there is a practice of venting, the

individuals expected to carry out maintenance in such confined spaces were unknowingly exposed to unsafe conditions where venting was insufficient. Oxygen deprivation and unsafe gases inhalation were the major hazards working in confined safes in the past. With enforcement of company safety standards in line with the company's revised policies and procedures, the Health Safety and Environment department have regulated entry permit collection and acquired more testing equipment. Consequently, health risk to workers has been greatly reduced.



“ The computerized maintenance management system was introduced in 2016 to help synchronize all aspects of maintenance

To get the buy in of all employees to the company's new safety standards and structures towards ensuring sustainability, the enforcement of safety regulations is now the responsibility of member of the company and not just the reserve of the Health, Safety and Environment department alone, resulting in improved workplace safety and zero loss time due to injuries or other forms of accidents.

In the 2016 reporting year, the company introduced the Computerized Maintenance Management System (CMMS) which was aimed at synchronizing all aspects of maintenance and defining the roles and responsibilities of the various units towards achieving smooth coordination, reduced downtime, proper planning of tools and materials requirements, effective communication with plant operators, and accurate job tracking and reporting. In October 2016, as part of our efforts to improve the environment through managing waste, the issuance of paper-based trouble memorandum reporting was discontinued and the CMMS was in full operation to assign, track and respond to defects. This process is managed by the Maintenance Planning Unit and is responsible for ensuring the training of all maintenance personnel periodically on the effective use of the enterprise application software, whilst they en-

sure the resolution of issue and challenges that may arise. The tracking and reporting on plant equipment maintenance has improved immensely with the introduction of the new maintenance system.

As part of the company's strategy, in the first quarter of the 2016 reporting year, there was a realignment of the technical partnerships -with the Korea Electric Power Corporation (KEPCO). This realignment brought to light this, the operations and maintenance department have been able to use the training received, its available expertise and resources adequately to ensure the plant and its auxiliary equipment were operational in line with the planned maintenance scheduling.

During the 2016 reporting year, a major challenge faced was the forced shutdown due to a boiler tube failure. As a result of this, we have

put in place a more comprehensive inspection process to ensure that such occurrence is limited to scheduled maintenance plans only. Also, we have put in place a system to regularly train engineers and technicians on Tungsten Inert Gas welding which a specialist knowledge requirement for boiler tube maintenance. As such, going forward, we have eliminated the dependence on contractors for the routine boiler tube maintenance repair activities.

Attaining fuel supply sustainability is key to ensuring that Egbin remains the provider of choice wherever energy is consumed. In light of this, the heavy fuel oil (HFO) unloading bay in the Egbin facility which is an essential part of the power plant consist of pumps, valves and lines required to evacuate and transfer HFO from the supply vessels to the storage tanks.



“ As a power generating company whose product – electricity, is obtained from steam turbines, we place tremendous value on the availability of water because it is at the core of our business. So, the access to water and its treatment to boiler feed water standard is of utmost importance.

Due to the growing concern for the instability of fuel supply to generate electricity. Due to the unpredictability of gas supply from Nigerian Gas Company, there was the need to rehabilitate the unloading bay since most associated equipment due to non-use had deteriorated significantly. Hence, we embarked on the rehabilitation project that required the replacement of all deteriorated equipment. The project was completed successfully and on scheduled to restore its original functions.



In addition, the boiler which was designed to be fired with natural gas or heavy fuel oil, had not been optimally utilized with HFO as the firing fuel since the plant was built. Although there were a few times in the past where HFO was used to complement the available natural gas, the facility meant for this purpose have not been managed to ensure the sustainability of oil firing. For this reason, the boiler maintenance section was tasked with the responsibility of preparing the boiler and its auxiliary equipment for oil firing. The auxiliary equipment of the heavy fuel oil firing system like HFO pumps, tanks, pipes for both steam and oil, valves and strainers were inspected and the necessary maintenance were performed internally in order to confirm readiness for oil firing. After maintenance, the boiler was tested on oil firing for two days with all the equipment inspected and confirmed to be in good working condition. The unit ran success-

fully on oil to confirm its readiness and availability for oil firing in the event of limited or low gas supply. As a power generating company whose product - electricity, is obtained from steam turbines, we place tremendous value on the availability of water because it is at the core of our business. So, the access to water and its treatment to boiler feed water standard is of utmost importance.

That's why the 2- train demineralization plant within the Egbin facility, which is responsible for removing the minerals and other impurities from the water primarily for steam production, was completely overhauled. The major problem with the plant was the displacement of strainers in the carbon filter vessel resulting in the transfer of activated carbon to the cation vessel thereby clogging the strainers. Having the

technical know-how of the demineralization plant maintenance and its water production process and operation were vital to investigating and understanding the reoccurring problems and solutions thus reducing the downtime.

In as much as 2016 was a very challenging year as a result of the economic recession and the realignment of our technical agreements with KEPCO, the responsibility for ensuring sustainability and efficient generation amongst the employees was brought to the fore front thereby creating huge opportunities to our engineers and technicians to exhibit technical and managerial competency following three years of technical and managerial development by our technical partners.



Business Approach

International Operating Standards

At Egbin Power Plc, we are committed to ensuring that international best practices are applied in all areas of our operations so as to guarantee the sustainability of our business. In order to achieve this, our Quality Health Safety Security Environment (QHSSSE), Plant Operations, Equipment Maintenance and Asset Management systems, have been designed to be consistent with international operating procedures and practices.

Our quest to operate a sustainable business has propelled us to adopt and implement international operating standards which have now become our corporate culture and way of life. In promoting international standards in power generation in 2016, we achieved remarkable safety performance of zero fatality rate, extremely low emissions which are dimmed within internationally acceptable limits; increased safety awareness and trainings, increased investment in employee healthcare, and an upgraded emergency management system amongst others.

In order to reduce the energy wasted at different points and terminals of the Egbin Power Station, as well as ensuring our business sustainability, Egbin Power Plc utilized globally accepted operating procedures and practices to achieve efficiency in energy performance. This improved our energy performance tremendously because we leveraged on international best practices to identify energy saving opportunities that could be introduced in order to maintain and improve our energy management system, thus increasing our energy efficiency whilst decreasing

energy consumption throughout the reporting year of 2016. The overall efficiency in 2016 based on the output/input method of calculation was 29%.

Improved Asset Management

The asset management system of Egbin Power Plc has been reorganized and restructured in order to strengthen management capabilities, improve strategic utilization of management resources and establish systems to support efficient operations. As a result, there has been an ongoing strategic implementation of structured business processes and models for asset reliability and integrity required to achieve long term sustainability.

As an organisation, we believe that our people are the most valuable asset. Therefore, our first priority is the creation of an environment where our people can positively impact on reliability and asset integrity, improved team behavior towards error reduction. During the reporting year of 2016, our maintenance



“

Our quest to operate a sustainable business has propelled us to adopt and implement international operating standards which have now become our corporate culture and way of life

task delivery system was optimized by the activities of the Maintenance Planning Unit, which is saddled with the responsibility of developing the details of the maintenance processes/techniques, coordinating the optimization of asset maintenance and inspection strategy using relevant records and data.

It is important to note that an evaluation of the maintenance management system has been carried out. Also, the establishment of benchmarks, Key Performance Indicators and other metrics used to drive performance development and improvement were adopted by Egbin Power Plc.



Employee Management and Development

“

Egbin Power Plc operates a unique performance management framework which was implemented in order to promote a performance-driven culture within Egbin Power Plc. The performance cycle consists of a goal-setting exercise, a mid-year review and the end of year performance review. In 2016, employees were issued with forms to record their respective performance goals. This was reviewed by the employees in June, 2016 and

evaluated at the end of the reporting year of 2016. The end of year evaluation revealed that the employees achieved a 100% career development review irrespective of their gender, level or cadre. In our quest to ensure simplicity, plans are currently being made to implement full automation of the performance management process for seamless documentation and reviews.

Egbin Power Plc operates a unique performance management framework which promotes a performance-driven culture.

Performance Enhancement

The management of Egbin Power Plc prides itself in the training and development of its employees, which enables them to efficiently and effectively discharge their various duties. The continuous training and development exercises represent a lifelong contribution of the Company to its employees, as the skills and knowledge imparted cannot be retrieved from them at the point of exit. The management of Egbin Power Plc also offers career and motivational talks to employees that are approaching retirement in order to help them prepare for life outside Egbin Power Plc.



Commitment to Compliance Obligations

Diversity and Equal Opportunity

At Egbin Power Plc, we provide equal opportunity and fair treatment for all our employees and stakeholders. Our Equal Opportunity principles are in line with the Company's aim to get the best from its people, creating the ultimate atmosphere for career growth and development. The Company believes that equal opportunities mean treating employees and stakeholders fairly without bias.

The staff and management of Egbin Power Plc are populated majorly by Nigerians from diverse backgrounds and groups. The Company, as a responsible organisation, does not discriminate against anybody based on age, religion, tribe, disability, gender or any other matter prohibited by local laws or regulations. As such, it accommodates all persons, provided that they are qualified for the role. In the reporting year of 2016, there were no reported cases of discrimination against anybody based on any grounds.

Egbin Power Plc continues to lead by example in the industry under which we operate. We pride ourselves in knowing that we do not fall short on obligations owed to external bodies/organisations that govern our business activities. This enduring commitment is constantly demonstrated through regular and early filing of our financial statements with Nigeria Electricity Regulatory Commission (NERC), as well as the regular filing of both employee and employer contributions without delay. Our track record has been proven over time with no recent record of penalties or fines paid due to non-compliance with laid down procedures. In order to ensure business sustainability, the directors, management and employees of Egbin Power Plc. continue to be committed to the laws, internal corporate rules and regulations that govern our business operations. To further show our commitment to our compliance obligations, the board of directors of Egbin has approved the development of a Corporate Compliance Manual, which will serve the purpose of driving the efficient implementation of our business operations based on laid down compliance procedures.



We pride ourselves in knowing that we do not fall short on obligations owed to external bodies/organisations that govern our business activities. This enduring commitment is constantly demonstrated through regular and early filing of our financial statements with Nigeria Electricity Regulatory Commission (NERC), as well as the regular filing of both employee and employer contributions without delay.



Materiality



● Economic Material Aspects
 ● Social Material Aspects
 ● Environmental Material Aspects

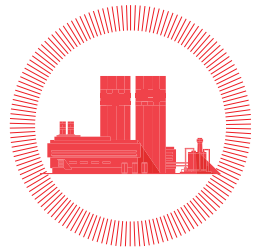


Business Priority Level

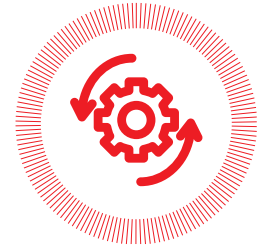
Business Priority	Material Issues	Objectives	Risks
Business Performance and Sound Governance	Energy conservation and Efficiency	Increase in Generation capacity, through extension of facility and improved maintenance culture, extending the operating life of generating assets.	Epileptic Gas supply and Grid Challenges
	Sound Governance and Fair corporate conduct		
	Financial Strength		Unfavourable Economic challenges posed by the country
	Development of new generating assets	Operation of generating assets at maximum efficiency and reduced operating cost	
	Energy affordability/ Prices		Illiquidity of the power market
		Attain strong financial performance and sound governance to ensure sustainability	
Standardized Working Condition and Social Relations	Responsible Relations with the Communities	Operation of generating assets in a safe and secure manner, ensuring zero tolerance for accidents and minimized injuries of employees, contractors and Visitors.	
	Security, Terrorism and Cyber Security	Adhering to International Procurement Best Practices	Non-compliance to organisations corporate governance framework
	Responsible supply Chain Management		External Pressure from stakeholders

Business Priority	Material Issues	Objectives	Risks
	Employee Management Development and Motivation	Empower the workforce through well-defined organisational structure, effective performance management system, succession planning, reward and recognition system, job enrichment/ career development opportunities, training and other forms of staff development.	Organisational inefficiency, due to loss of talent and lack of motivation.
	Employee Engagement	Ensure a highly engaged workforce by providing the right atmosphere and good working environment with teaming activities to promote respect for the individual and allow for innovation.	Employee lethargy; lack of productivity and innovation.
	Employee Health and Safety		
Substantial Environmental and Climate Change Management	Climate Strategy and Landscaping	Ensure compliance of all legal and environmental commitments expected of the organisation	Non-compliance fees from environmental infractions
	Environmental Spills Compliance	Responsible and efficient exploitation of environmental resources	Unfavourable Government policies
	Generation of Renewable Energy	Green landscaping of our environment in order to promote a sustainable climate.	
	Efficient use of Water Resources		

Key Figures



N397
Billion
Asset Value

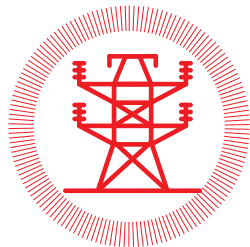


95%

Maximum Power
Generating Capacity
Achieved



N78
Billion
Revenue



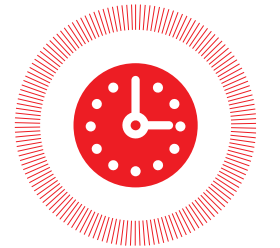
4.4
Million
MWH
Total Power
Generated



386
Total number of
Employees



0
Environmental
Infringement
And Oil Spill



29
Hours
Average Staff
Training Hours



>80
Million
Amount spent on
community projects



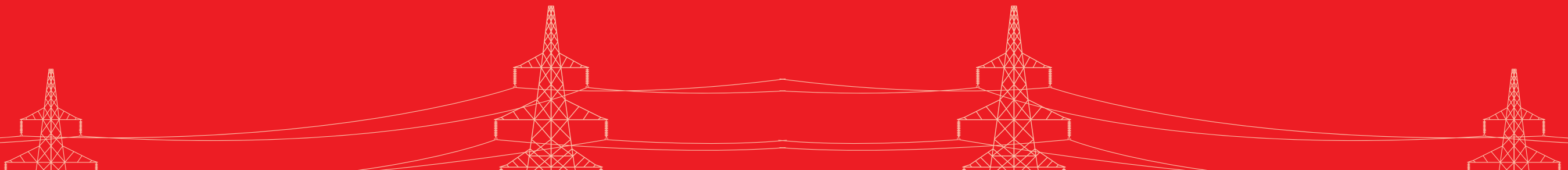
N32.5
Million
Amount spent on
state-of-the-art PPE



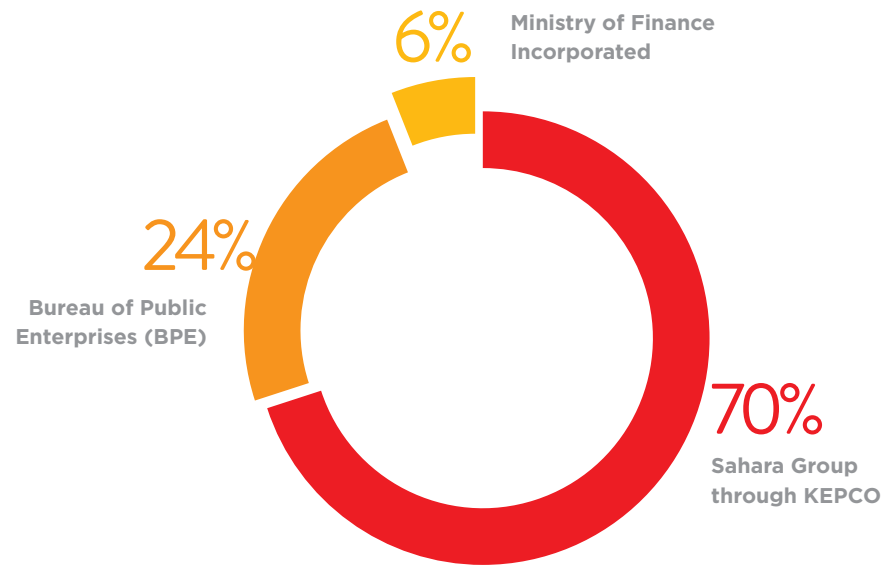
Economic Sustainability

IN THIS SECTION

- Economic Performance
- Plant Availability and Reliability
- Financial Status
- Investments and Expenditure
- Supply Chain Management

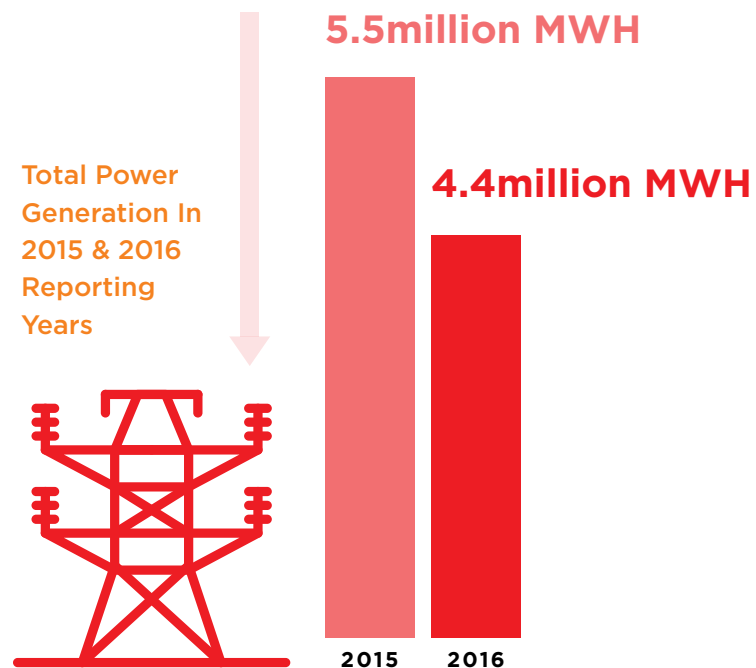


In 2016, Egbin Power Plc.'s capital structure remained the same as 2015, with Sahara Group through a Special Purpose Vehicle (KEPCO Energy Resources Limited) owning 70% of the shareholding, Bureau of Public Enterprises (BPE) with 24%, and Ministry of Finance Incorporated owning the remaining 6%. However, in 2016, the authorised share capital increased from 10,000,000 in the previous year to 100,000,000, while the issued share capital increased from 10,000,000 in the previous year to 25,000,000.



Economic Performance

In the 2016 reporting year, the Nigerian economy experienced its first recession in 25 years as a result of the persistent fall in Crude Oil prices from the budgeted benchmark of about \$78/barrel in 2015, to about an average of between \$40/barrel and \$45/barrel. In addition to the fall in oil prices, the disruption of in the operations of pipeline installations and other government assets in the oil-rich Niger-Delta region was at a significantly higher level when compared to previous years. The combined impact of the insecurity and the drop, in oil prices led to the devaluation of the Naira against the US Dollar from N197/\$1 to N199/\$1 and brought about huge scarcity of foreign exchange which subsequently led to the introduction of the floating exchange rate in 2016.



Average electricity generated in 2015 & 2016



The above mentioned socio-economic/political issues brought about financial challenges for many companies operating in Nigeria during the year; and Egbin Power Plc. was no exception. During the period, Egbin Power Plc. recorded a total generation of 4.4 million MWH (against the 5.5 million MWH recorded in 2015). In the early parts of the trading period, when gas was readily available for production and before the insecurity in the Niger-Delta became more profound, Egbin reached an average of 903MW of electricity generation in the first two months of the year when compared with an average 421MW recorded in the subsequent ten months in the year.

The year recorded an increase in revenue of about 50% to which amounted to N78bn (\$321.33m) in 2016, up from the revenue figures of N52bn (\$259.55) recorded in 2015. The increase in earnings is due to an increase in Foreign exchange trading figures that resulted from the floating exchange rate policy introduced by the Central Bank of Nigeria in May 2016.

The increase in revenue was, however, eroded by exchange rate related losses of about N15 billion that arose from having to source foreign exchange from the parallel market due to the scarcity of dollars in the Nigerian market, which was required to meet obligations for Operation and Maintenance (O&M) expenses and procurement of major spares and equipment.

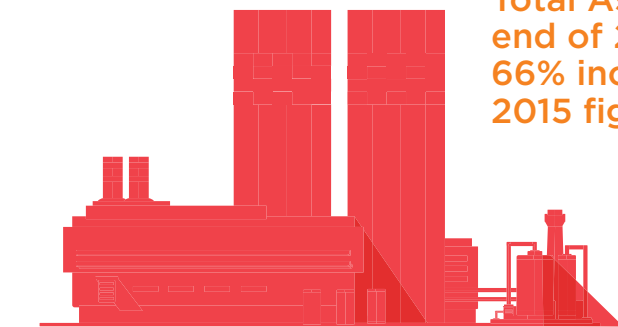
The resurgence of the militants in the Niger-Delta region of the country also adversely affected the availability of gas, which led to the inability of the plant to fire optimally.

N78billion
Revenue in year 2016

50%
Percentage increase in revenue from preceding year

N397 billion

Total Assets by end of 2016. A 66% increase from 2015 figures



Cost of sales increased by 75% which amounted to N89.59 billion. The increase in cost of sales was a major contributor to the loss before tax figure of N19.85 billion and a further decline from the N10.59bn loss recorded in the previous year. By the end of 2016, total assets had increased to N397 billion, a 66% increase from the figure recorded in 2015.

This increase can be attributed to surplus of N119m on the year end revaluation of the company's assets, and increase in receivables (which

increased by about 100%) from off-takers of electricity from N43 billion in 2015 to N77 billion in 2016. Due to the huge level of unpaid receivables, Egbin Power Plc. faced several challenges in meeting its obligations. We have however continued to work closely with our partners to ensure that outstanding obligations resulting from the high levels of receivables do not jeopardize our sustainability in the short-term.



Organisational Supply Chain

For Egbin Power Plc. to maintain its status as the foremost power generation plant in Nigeria, we have maintained an extensive supply chain management system ranging from producers/manufacturers, transporters, and suppliers. As an organisation, we always ensure that we create value at every level of our business operations. For ease of understanding, we have categorized some members of our supply chain into various groups:

Brokers

In a bid to ensure that the value created is also sustained, we have put in place comprehensive insurance policies for all our generating assets through our broker/agent management system, thereby ensuring that not only are our plants insured against risk, but also our people and all other forms of combines risks that could arise from our operations and to our people are duly assessed and covered.

Wholesalers

The Nigerian Gas Company is one of our major wholesalers as it supplies

the gas which is used as feedstock to power the turbines of our plant. Throughout 2016, there have been gas constraints due to vandalization of pipeline used to transport the needed gas to our facility.

As part of measures to forestall the associated challenges of vandalism and gas supply, we have signed a Gas Supply and Aggregation Agreement (GSAA) with Chevron Nigeria Limited to supply gas to the facility. The terms of the contract have been finalised with Egbin Power Plc. providing all relevant/necessary documentation for the process to kick-off. However, the supply of gas

has not commenced, we envisage a start date in the 2017 financial year following when we both parties to agreement obtain an agreed payment security plan security from the Nigerian Bulk Electricity Trading Plc. (NBET).

Off takers Nigerian Bulk Electricity Trading Plc (NBET)

Through a Power Purchase Agreement (PPA) entered into between NBET and Egbin Power Plc, NBET purchases bulk power from Egbin Power Plc. and resells the power to the Distribution Companies (Discos)

according to demand, based on a vesting contract it enters into with the Discos. NBET being the major customer of Egbin Power Plc, plays a key role in the success of the company.

Eko Electricity Distribution Company (EKEDC) and Ikeja Electricity Distribution Company (IE)

In addition, we rehabilitated Unit 6 of our facility (with a capacity of 220 MW) that was not in operation as at the time of takeover. To boost profitability and deliver power to our immediate surroundings, NERC approved the sale of the excess power to Eko Electricity Distribution Company (EKEDC) and Ikeja Electricity Distribution Company (IE) through bilateral agreement. The project commenced in February 2016 and remains operational. However, in July 2016 the services to EKEDC were suspended due to arrears in payments of billed invoices.

Transmission Company of Nigeria (TCN)

Power Generated is transmitted by the Transmission Company of Nigeria (TCN) through the centralised grid. TCN's operations currently comprise of three key functions of Market Operator (MO), System Operator (SO), and Transmission Service Provider (TSP).

Consultants

Professional services are an essential part in any modern business environment. In recognising this, we have contracted and retained the services of some of the most reputable consultants locally and internationally. An Operations and Maintenance services agreement was signed with the Korean Energy & Power Company (KEPCO) in 2013 for operation and maintenance services to help boost skill and knowledge transfer for the employees of Egbin Power Plc. the



“Towards ensuring the integrity of our financial statements, Akintola Williams Deloitte one of the big four auditing firms was engaged for the audit of our Financial Statement. To further boost business efficiency and effectiveness, KPMG Consulting was tasked with the responsibility of developing a tariff model that is cost effective which was submitted to NERC

agreement was realigned in February 2016 in order to assess and ascertain see the level of knowledge transfer and development of the company's employees. The outcome of the realignment has brought to light the great improvement of the technical capabilities of our employees, which has led to the company proposing a new technical services arrangement which would help increase the level of contribution of the employees towards driving our sustainability footprints.

Towards ensuring the integrity of our financial statements, Akintola Williams Deloitte one of the big four auditing firms was engaged for the audit of the Financial Statement of Egbin Power Plc and the 2015 Financial Statements were submitted to NERC, Abuja prior to the deadline. To ensure that the company is continually compliant with the operational tax regulations and as part of activities to develop local content participation, we have employed the services of a leading tax consultant Pedabo Associates during the reporting year, to manage the company's regulatory risks of compliance in 2016 and to date, all tax related

filings has been completed. In addition to the successful tax filings, another major milestone achieved is obtaining a Tax Pioneer Status to ensure that we are able to plough back any tax savings into the business to boost operational growth.

To further boost business efficiency and effectiveness, KPMG Consulting was tasked with the responsibility of developing a tariff model that is cost effective which was submitted to NERC. In addition to building the model, KPMG also engaged in some other business advisory functions for the company. This service has gone a long way in ensuring that revenue figures calculated are accurate and show a true reflection of value created.

Manufacturers

The Power sector is a capital-intensive sector with ground-breaking technology being introduced daily to meet the ever-growing demands of the industry in which we operate. In our bid to continually remain **“Provider of Choice wherever energy is consumed”** we have partnered and are continually looking at partner-

ships that will ensure that we deliver on our vision. As such we have partnered with vendors such as Korea Electric Power Corporation (KEPCO), ORBIS and Korea Plant Service & Engineering (KPS) to help manufacture various capital items over the period.

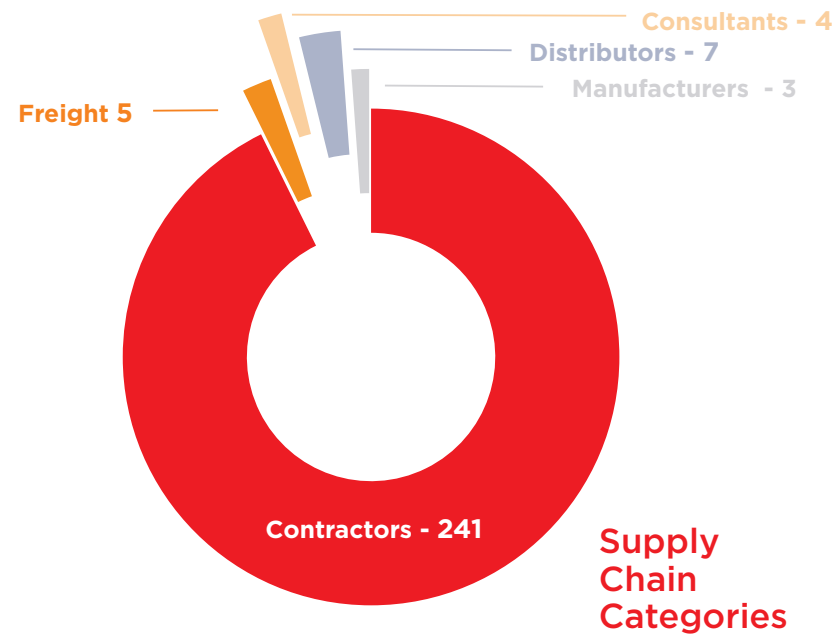
The latest of these partnerships being the manufacture of a 270MVA transformer scheduled to be operational in 2017. Also in the reporting year, we have signed a Memorandum of Understanding (MOU) with Marubeni Corporation of Japan.

Our Stakeholders


The management of Egbin Power Plc. understands the need for stakeholder engagement and ensure accountability for all activities carried out by the company, hence there were three board meetings held during the year, while an Annual General Meeting has been scheduled for 2017 reporting year.

The board meetings held in 2016 touched on very salient issues - liquidity constraints due to huge receivables from NBET, Plant overhaul and strategies to continually improve on security concerns resulting from land encroachment that facilitated the need to commission a perimeter fencing project.


In our daily operations as an organisation, we interact with various groups of individuals and organisations. We have grouped our stakeholders into various categories based on the type of relationship with the organisation. Some stakeholders based on those categories are listed below:




Regulators




Nigerian Electricity Regulatory Commission (NERC)



Bureau of Public Enterprises (BPE)



Financial Reporting Council (FRC)



Federal Inland Revenue Services (FIRS)

Suppliers



Nigeria Gas Company



Chevron Nigeria Limited



Nigeria Petroleum Development Company (NPDC)



Panocean Oil Corporation Nigeria

Shareholders



KEPCO Energy Resources Limited (KERL)



Bureau of Public Enterprises (BPE)



Ministry of Finance Incorporate (MOFI)

Partners



KEPCO Energy Resources Limited (KERL)

ORBIS



KPS



Marubeni Corporation

Staff and Local Communities

Our esteemed staff and local communities are the most important categories of stakeholders that have helped to boost our business operations, through their support and dedication.



Plant Availability and Reliability

Power Generation

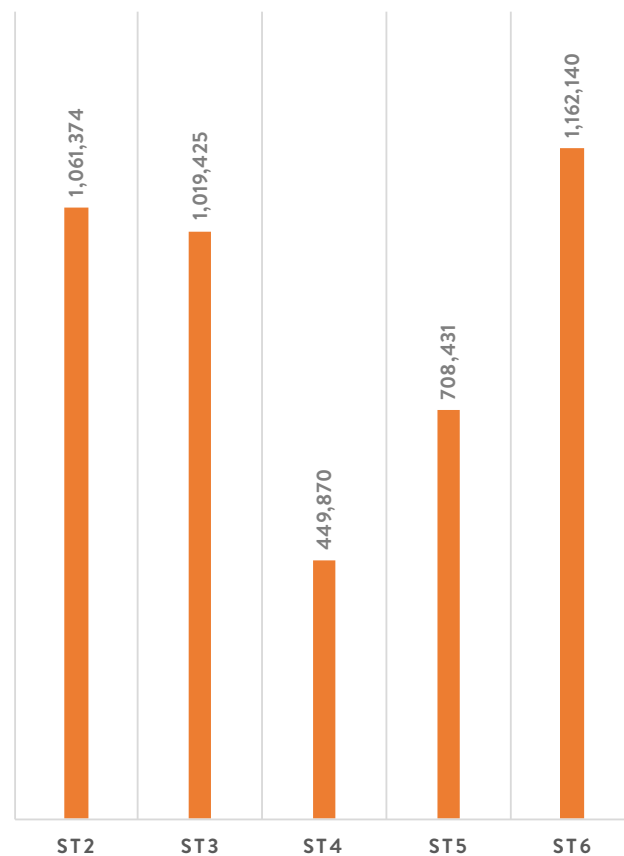
Egbin operates a six-steam turbine (ST) unit facility. Throughout the 2016 reporting year, Steam Turbine (ST) 1 was shutdown, as part of the scheduled overhaul of the Generator transformer.

Despite the gas supply constraints experienced during the 2016 reporting year, ST 2 - 6 generated 1,061,374MWh, 1,019,425MWh, 449,870MWh, 708,431MWh, 1,162,140MWh respectively.

Cumulatively, the remaining 5 steam turbine units generated a total of 4,401,240MWh which was transmitted to the grid for the use by residential, commercial and industrial customers. It is envisaged that power generation will improve at Egbin Power Plant with continued improvements in gas supply. However, the demand for gas currently exceeds the supply available in the domestic market.

The power generated by Egbin is traded in the Nigerian Electricity Supply Industry which is regulated and controlled by the NERC. The process starts upstream with generation companies like Egbin, who sell power to NBET, who have entered into

POWER GENERATION BY ST 2 - 6 (MWH) IN YEAR 2016

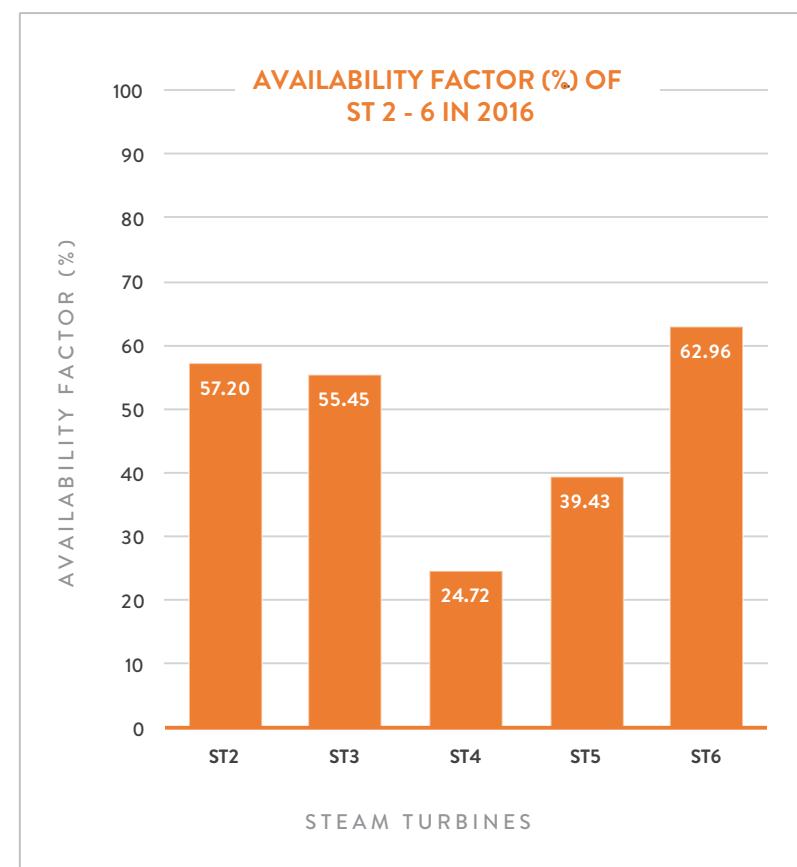


vesting contracts with the power distribution companies, who then trade the power to end users/consumers.

Egbin is a party to a Grid Connection Agreement with the TCN for connection to the grid. This site-specific agreement sets out the terms by which Egbin is being connected to the grid, as well as the operations and safety requirements in line with the requirements of the transmission network. There is a need to maintain discipline across the national grid in order to ensure the sustainability of power companies in Nigeria. Therefore, whenever the National Control Centre (under the authority of the System Operator) instructs Egbin operations engineers to drop huge amounts of load within short intervals, it could be detrimental to the design life of our steam turbines. There could be negative impacts on our generating system as a result of thermal stress that may accumulate over an extended period of time due to improper load decrease. Grid indiscipline, inactive power purchasing agreement and other industry agreements are some of the challenges that could threaten the effective delivery of power to consumers. These issues are however being resolved by the relevant government agencies and industry regulators.

Availability Factor

The availability factor of a power plant is the amount of time that the plant is able to produce electricity over a certain period, divided by the amount of the time in the period. The availability of a power plant varies greatly, depending on the type of fuel, the design of the plant and how the plant is operated. Everything else being equal, plants that are run less frequently have higher availability factors because they require less maintenance and because more inspections and maintenance can be scheduled during idle time. As earlier stated, ST 1 was not in operation throughout 2016. As a result, the



Average Availability Factor recorded for each of the 5 operational steam turbines was as follows:

- ST 2: 57.2%
- ST 3: 55.45%
- ST 4: 24.72%

- ST 5: 39.43%
- ST 6: 62.96%

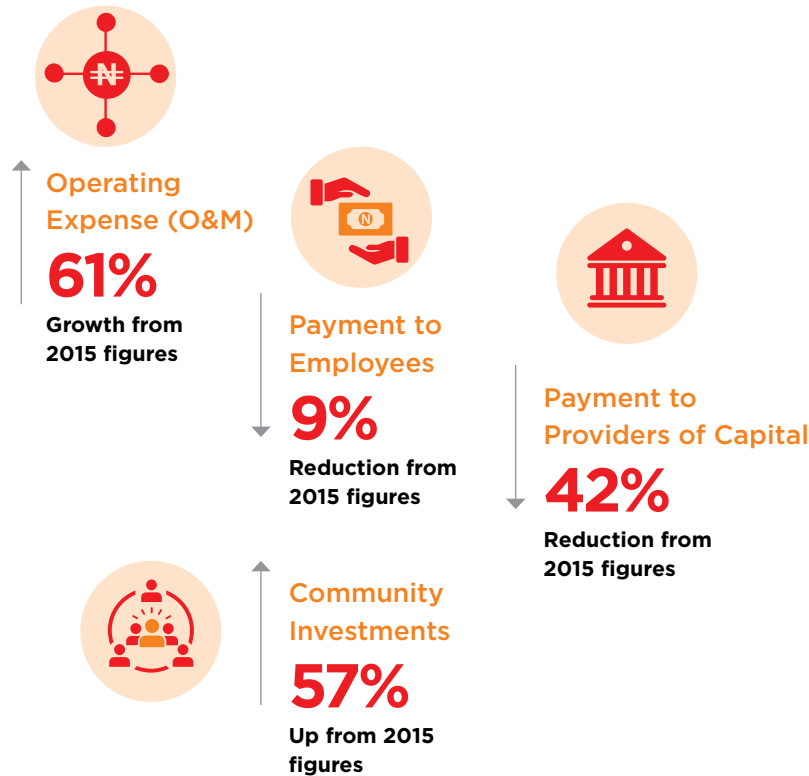
On average, the total Availability factor for all 5 steam turbines was 39.96%.

Financial Status

Direct Economic Value Generated and Distributed

Egbin Power Plc. does not only generate power for the whole Nigerian populace, it also demonstrates its character as a morally upright citizen of the country through value added to various stakeholders and the community at large. A breakdown of value added is stated below:

- Operating Expense (O&M) – 61% growth from 2015 figures
- Payment to Employees – 9% reduction from 2015 figures
- Payments to Providers of Capital – 42% reduction from 2015 figures
- Community Investments – 57% up from 2015 figures



Due to the current economic realities, the company recorded a loss of about N9.39bn during the 2016 financial year. The recorded loss represents an improvement over the loss recorded in the previous reporting year of about 11.3%.

Financial Assistance Received from Government

Over time, respective Governments have subsidised operations of businesses through different methods such as grants, tax reliefs and credits, soft loans etc. These subsidies will go a long way in assisting Egbin Power Plc. in meeting its organisational objectives, due the fact that most of our revenue is has been tied in receivables accrued to NBET. However, during the operating year, Egbin Power Plc. was not able to go through any of the channels listed above to access any subsidies and/or incentives from the Government. We were able to complete major milestones in the process of filing for

the Pioneer Status that will lead to tax savings. Obtaining the status will lead to savings that the management of Egbin Power Plc. plans to plough back into the business to ensure sustainable growth and profitability.

Although Egbin has successfully transitioned from a Public company to a Private company, Government

interest is still very high in the business as the facility is widely considered as a national asset. This Government interest can be seen in the capital structure of the company with the Government owning 30% of shareholdings through the Bureau of Public Enterprise (24%) and Ministry of Finance Incorporated (6%).

“ Although Egbin has successfully transitioned from a Public company to a Private company, Government interest is still very high in the business as the facility is widely considered as a national asset.

Investments and Expenditure

Investment in Community Projects

At Egbin, we believe that just as we are recipients of the deeds of the community, we should reciprocate their gesture with our own good deeds through extensive Personal and Corporate Social Responsibility (CSR) initiatives.

During the 2016 reporting year, we have maintained the supply of uninterrupted power from the plant as well as regular supply of anti-malaria medications to the health centre in order to help combat cases of malaria within the community.

We have expended over N80 million on the welfare of the community through donations to schools, hospitals etc. during the 2016 reporting year. This is an increase of about 57% increase of the previous year's expenditure. This increase shows that Egbin is constantly looking for ways to give back to the community to ensure not only a profitable business but also a sustainable business that will last for generations to come.

Investment in Human Capital, Safety and Environment

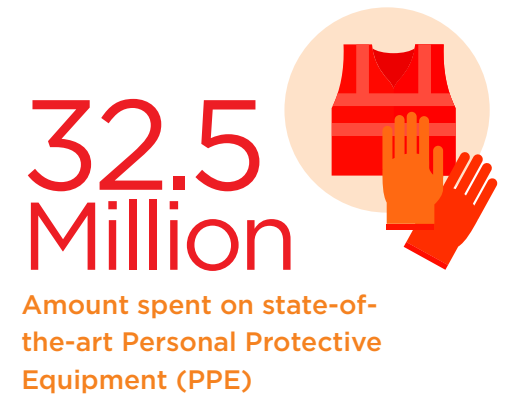
It is important to highlight that the world is gradually migrating from just reporting the bottom-line of a business from the basis of profitability, and is now adopting the “triple P” initiative which represents People, Planet and Profit. This initiative ensures sustainability of the business and also prevents environmental degradation.

In adopting this trend, Egbin Power Plc. has invested huge resources in



the learning and development of staff including procedures that have been set up for the prevention of spills and carbon emissions. These initiatives range from regular discharge testing to fixing of broken down equipment that might otherwise lead to wastage and/or spillage. Egbin Power Plc. also organises health walks and talks to enable the staff maintain good personal health and fitness of body and mind.

During the 2016 reporting year, safety costs were on the rise, as state-of-the art Personal Protective Equipment (PPE) was provided regularly to ensure safety, with an estimated N32.5 million spent on safety and environmental expenses. This figure shows a remarkable increase of over 100% over the previous reporting period.

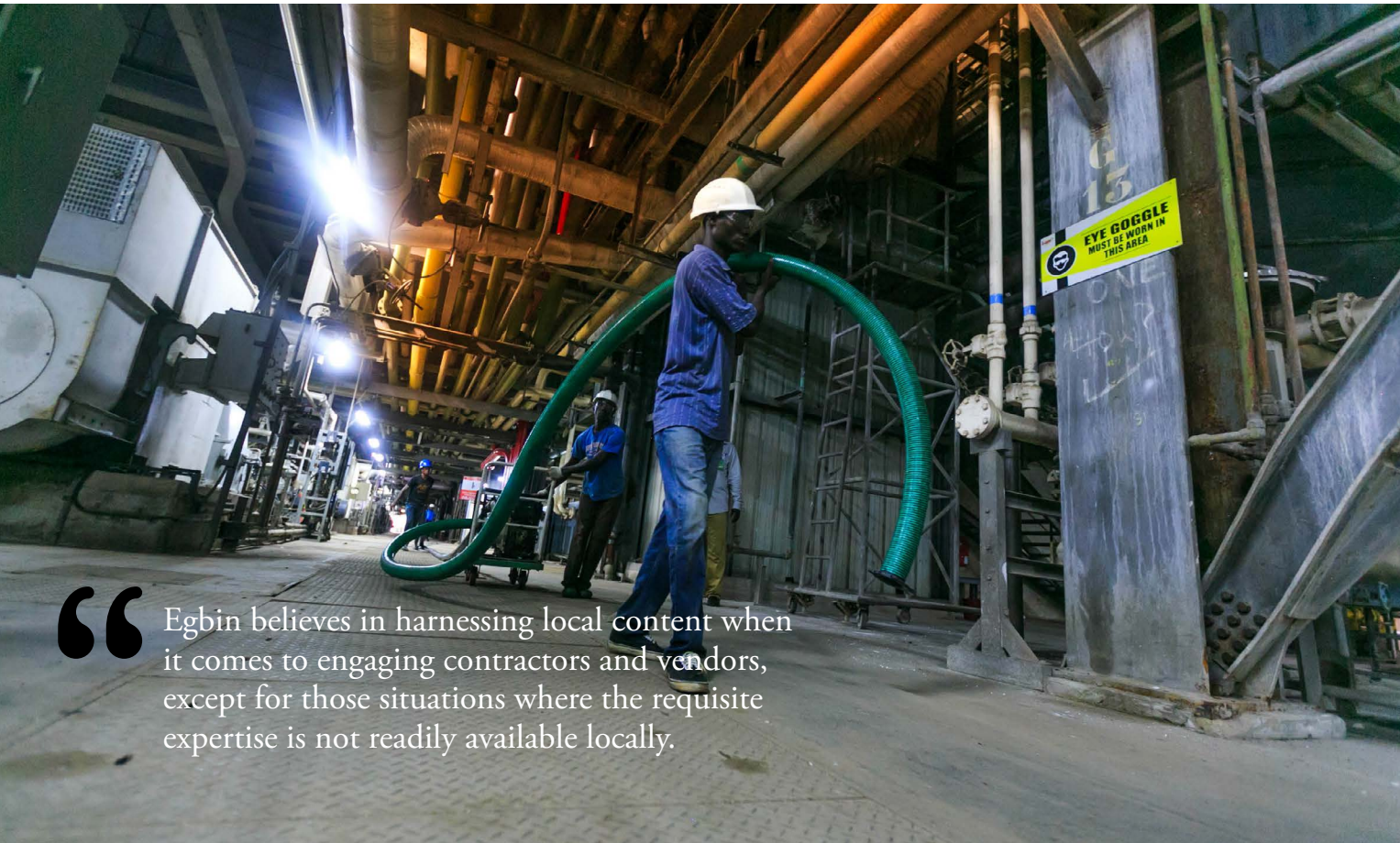


Regular walks and talks organised to promote good health for staff

Supply Chain Management

Procurement Practices

Egbin Supply Chain Management is based on international best practices, which involves the understanding of business needs, making a case for sustainable options, managing the performance of suppliers and developing collaborative efforts with suppliers in order to boost the business performance of our organisation. The Procurement practices are geared towards promoting fairness, accountability, responsibility and transparency in all of the company's procurement practices. Egbin believes in harnessing local content when it comes to engaging contractors and vendors, except for those situations where



“Egbin believes in harnessing local content when it comes to engaging contractors and vendors, except for those situations where the requisite expertise is not readily available locally.”

270

Total amount of competent contractors registered with verifiable track record of impeccable quality

the requisite expertise is not readily available locally.

Under our new Supply Chain Management System (SCMS), we have registered about 270 capable and competent contractors with verifiable track records of impeccable quality, having passed through our mandatory vendor registration process.

Egbin depends on the key suppliers and the third-party providers, locally and internationally, for the supply and maintenance of equipment and services that is needed by the company towards meeting its objectives. Owing to the fact that a number of critical and high precision equipment are not manufactured in Nigeria, 80% of the suppliers are based in Nigeria whilst others are based in Asia and Europe.

An efficient Supply Chain Management System (SCMS) is a matter of priority the company, as such we have put certain developed a procurement policy and provided necessary procurement guidelines to manage our procurement practices. In implementing our procurement practices, we take into consideration the management of environmental, social and economic impacts, including international best practices. The overall objective of supply chain management process is to create and maintain long-term environmental, social and economic value for all the stakehold-

ers involved in bringing materials and services to the organisation.

In the company's SCMS data base, about 90% of our vendors and/or contractors are party to a collective bargaining agreement which provides uniform terms for their engagement. Part of our core objectives is to look after the interests of all our stakeholders. . As such, our company's business principles, corporate governance policies and code of ethics as well as other key guidelines which drive our anti-bribery and corruption initiatives are binding on all our suppliers. The company's business principles set out our core beliefs and ideologies that guide the way that the company, its employees and suppliers conduct business. Therefore, it is important that all stakeholders work in commitment to ethical business practices and good governance to uphold the company's good reputation, as integrity is the basis for our sustainability success.

Economic Contributions to the Local Communities

In the 2016 reporting year, Egbin Power Plc. contributed to the development of the economy of the local communities through the procurement of human and material resources to support its business operations.

These local communities are Egbin, Ijede and Ipekan. It is important to note that the business of power generation is one that continuously requires huge financial investments in order to improve social, economic and environmental performance of the business. Therefore, it is pertinent to note that as an organisation, we have been deeply affected by the current economic realities. Nevertheless, we intend to maintain our contributions to the development of

95%

Employees residing in local communities, thereby boosting the economy of these local communities

the local economy and the country through our financial investments. Also, worthy to note is that over 95% of our employees reside in the local communities and purchase their personal goods and services from local vendors. This has indeed increased business patronage for the local businesses; and therefore, led to the creation of more jobs/businesses in order to satisfy the expected high standards of our employees.



Environmental Sustainability

IN THIS SECTION

Environmental Management

Environmental Compliance

Climate Change and Sustainable Electricity Generation

Greenhouse Gas Management

Waste Management

Resource Management



Environmental Protection

Environmental Management

The need for a high level of consciousness and awareness of Egbin Power Plc as a power generation company utilizing natural resources – water and natural gas, responsibly and sustainably is very essential to our continued journey towards sustainability.

With about seven billion people competing for the limited natural resources available on the planet, and the expectations of a growing world population estimated to be about eight billion over the next several decades, we will still be requiring more of the limited natural resources.

For these reasons, we have made it as part of our core values to perform operations, maintenance and generation of electricity in the most environmentally friendly manner, whilst providing power for the consumption of the Nigerian populace.



“ We continue to pride our self as a power generating company that manages environmental and safety issues proactively. Over the years, this approach has earned the company the leadership role not only in power generation but also in safety and environmental management.



“ Being a participant in the Nigerian power sector, the company fully subscribes to Nigerian Electricity Regulatory Commission Health and Safety Code and it has been a guiding principle in the company’s management of health and safety matters.

In our continuous effort to keep up the commitment to the high environmental standards set by the board of directors and management of Egbin, we continue to abide by the spirit and letters of the Occupational Health and Safety Management Systems 18001. We continue to pride our self as a power generating company that manages environmental and safety issues proactively. Over the years, this approach has earned the company the leadership role not only in power generation but also in safety and environmental management.

Our positive approach to safety and environment has its foundation in our robust health and safety management system which enables formulation and implementation of sound policies in health, safety and environment. This gives us an edge over other power generating companies operating in the country.

Being a participant in the Nigerian power sector, the company fully subscribes to Nigerian Electricity Regulatory Commission Health and Safety Code and it has been a guiding principle in the company’s management of health and safety matters. The company also complies with other relevant local and international laws and regulations.

Our environmental issues are closely monitored by regulators like Lagos State Environmental Protection Agency (LASEPA), National Oil Spill



As a member of the British Safety Council. We are strategically positioned in terms of safety management; and this has in turn improved our safety standards.

Detection and Response Agency (NOSDRA) and Federal Ministry of Environment, for air, land and water discharges to ascertain that the company is in line with the prevailing laws on pollution management and control of wastes attributable to the power plant.

Egbin Power Plc is a member of a United Kingdom safety body known as the British Safety Council. By virtue of our membership, the company is strategically positioned in terms of safety management; and this has in turn improved our safety standards.

For now, Egbin Power Plc does not have any emission trading scheme but there are, however, plans to invest in energy efficiency technologies that are more environmentally friendly. A good example is the use of combined power cycles that can utilize heat waste for another cycle of power generation.

Major Environmental Issues

As the largest thermal power plant in Nigeria, which consumes 42tons per hour of natural gas for each steam turbine unit at maximum continuous rating, it might be assumed that we would be the amongst the top tier of environmental pollution, considering the levels of water discharge, emissions and waste disposal. However, on the contrary, Egbin has established an efficient environmental management system which has been functional since 2013. This system has ensured that the quality of the water discharge, the quantity of CO2, NOx and SOx are kept within regulatory limits.

In our quest to sustain the high level environmental performance that we recorded in previous years, we continue to consider the following environmental factors as our top-most priority:

- Emission due to combustion of natural gas.
- Fish entrainment and impingement at the water intake area.
- The change in flow and level of water.
- Thermal and chemical emissions to the lagoon.
- Oil spillage.

Performance Objectives

Being an environmentally responsible power company that acknowledges the concerns of its stakeholders, Egbin has continuously set high goals and targets that will enable us to continually try to eliminate any potential threats that our business operations may pose to the environment, whilst ensuring sustained environmental risk assessments to gauge our performance.

For performance tracking and evaluation, the objectives of our environmental management system are:

- Minimal emissions and zero oil spill.
- Responsible consumption of materials and the minimization of the consumption of natural resources and energy.
- Reducing waste generation by adopting the best operating practises and recycling materials where practicable.
- Safe and efficient disposal of waste and effluent.
- Procurement of products and services that are environmentally friendly.

It is imperative that we will continually identify, prioritize and manage environmental risks utilizing internationally acceptable methods. This is because in our periodical measurements and reviews of our environmental performance, we consistently create the organisational awareness necessary

Egbin Performance Objectives



Zero Incidence



Reduce Waste



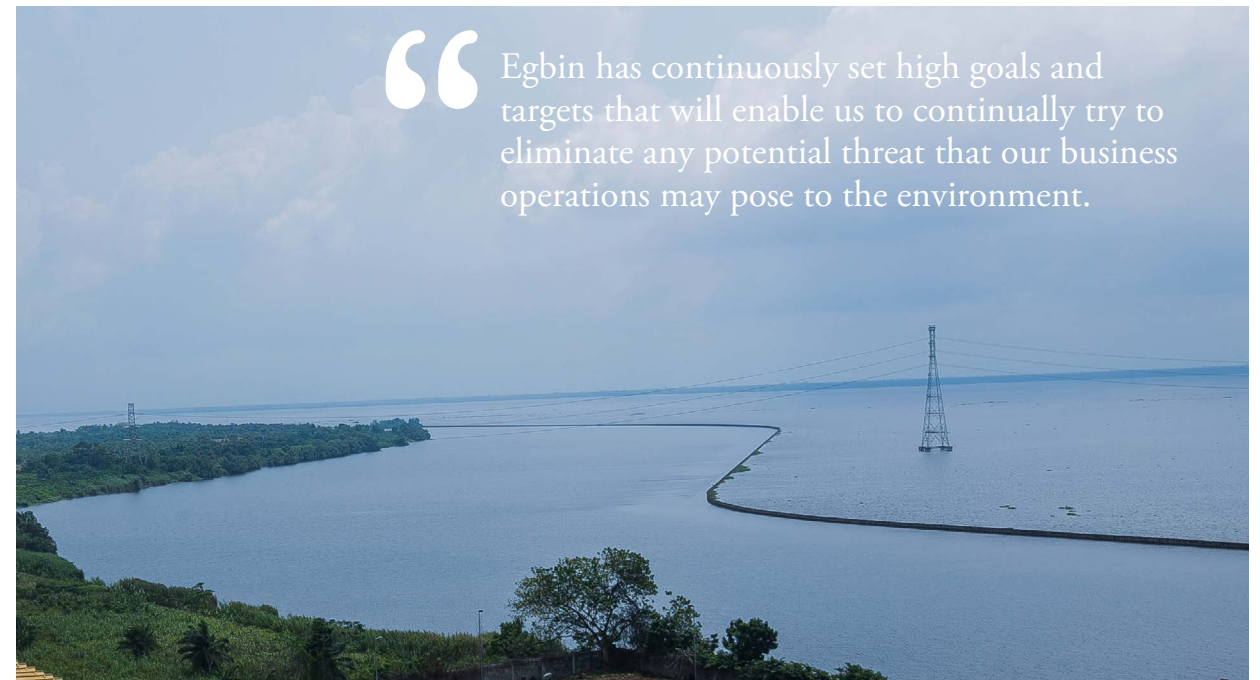
Minimize Consumption



Environment safe services & products

to course-correct in the event that year-on-year environmental performance indicators are on the upward trend.

“ Egbin has continuously set high goals and targets that will enable us to continually try to eliminate any potential threat that our business operations may pose to the environment.



Environmental Compliance

Infracton of Environmental Law

In the 2016 reporting year, Egbin recorded zero environmental safety infringement. In 2016, Egbin made conscious efforts to ensure that the sustainability of the ecosystem in and around our power generating facility was not jeopardized as a result of our business operations.

The compliance with existing environmental laws in Egbin power station is monitored by the Nigerian Electricity Regulatory Commission. The Commission does this by engaging power companies like Egbin Power Plc in health, safety and environmental performance that is periodically assessed for compliance and improvement where required.

Spill Management

The risk of a minor or major oil spill is always present in a power facility like Egbin, where we make use of T-32 grade oil for the lubrication of the turbine shaft and Heavy Pour Fuel Oil as an alternative to natural gas for firing the boilers.

Accordingly, we have continued to improve our oil spill management system in order for it to primarily prevent spillage. As a result, in the reporting year 2016, no oil spill incident was recorded unlike in 2015 when we had a leak of about 800 liters of heavy fuel oil. Going forward, the recommendations made by the Lagos State Environmental Protection Agency (LASEPA) in the Post Impact Assessment of the aforementioned oil spill incident in 2015 have continued to strengthen our resolve to improve the oil spill management system at Egbin so as to continuously record zero spill.



We have continued to perform comprehensive environmental monitoring leveraging on highly qualified safety professionals. Also, we have ensured that the oil-water separators required to forestall oil leaks into the lagoon are functioning effectively. In the 2015 report, we stated the installation of a high integrity automatic safety system needed to shut off flow of oil into water drain lines, as one of the recommendations that would be implemented. This was implemented in the reporting year



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We have continued to perform comprehensive environmental monitoring leveraging on highly qualified safety professionals. Also, we have ensured that the oil-water separators required to forestall oil leaks into the lagoon are functioning effectively.

and has contributed to the zero-oil spill recorded thus far.

Additionally, we have continually trained operators and selected members of maintenance staff in the operation of oil handling equipment.

The conscious effort to develop the awareness of our staff coupled with other features of our comprehensive oil management system such as - the work permit system, job hazard analysis and risk assessment,

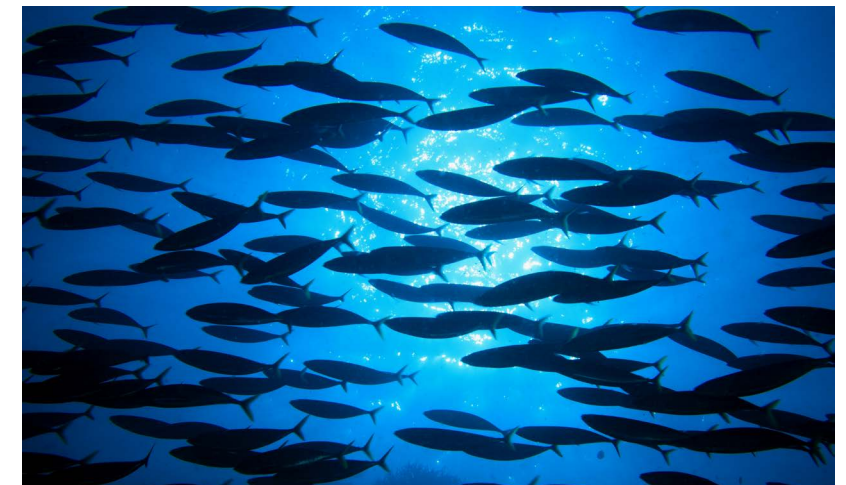
daily routine patrols, enforcement of standard operation procedures amongst others, we hope to constantly record zero oil spill.

Lastly, in the event of an unfortunate incident of an oil spill, the company has instituted a contingency protocol that has been approved by the Federal Ministry of Environment, the National Oil Spill Detection and Response Agency, and the Lagos State Environmental Protection Agency.

Safety of Marine Life

As a thermal power plant that conducts its power generation business on the bank of the Lagos lagoon, we are in close interaction with the aqua-life. We understand that the lagoon is a major source of revenue for the local community as it drives a significant portion of the economic activities in Egbin town. Our knowledge of the economic importance of the Lagos lagoon to the Egbin people has further strengthened our resolve to be environmentally responsible enough to safeguard the aquatic life around our power station.

The safety of the aqua-life is at the core of our business principles. We were not sanctioned administratively or judicially in the 2016 reporting year for any environmental regulations violations. This is proof that we believe strongly in the protection of the vibrant ecosystem in the lagoon for a sustainable development of the local community.



As a company that has adopted the 17 Sustainable Development Goals (SDG's) of the United Nations, as a focal point of towards our sustainability footprints, we have made specific efforts to ensuring that align with goal number 14 - Life Below Water, we have insisted on the conservation and sustainable use of the lagoon water for the cooling of our systems. This has compelled us to perform quality control of the discharge water released to the water body in order to mitigate ocean acidification, temperature rise, ocean water chemistry distortion and threat to marine life that may occur due to thermal and chemical emissions.

Egbin's environmental performance with respect to marine safety may be gauged from the fact that zero grievances were filed through formal grievance mechanisms in the 2016 reporting year.

Considering that we have established a transparent and open-door policy with the local community to make formal complaints through our whistle blowing platform - *expressyourself@egbin-power.com*, and still recorded no grievance, we believe that our environmental management system is functional and effective, but will be continuously reviewed in line with international best practices for improvement.

Effluent Quality Control

The amount and quality of the water discharged by the company is directly linked to ecological impact and operational costs. Therefore, we continue to maintain our commitment to return water to the environment at a level that supports aquatic life. Additionally, we strive to keep the impact of our activities on the environment as low as possible and in line with



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A company that has adopted the 17 Sustainable Development Goals (SDG's) of the United Nations, we continue to strive towards achieving sustainable business operations while contributing to the development of the society and conservation of the environment.



the regulatory accepted standards so as to prevent negative impacts. The water we return is monitored and treated if need be, to achieve full compliance with State and Federal environmental regulations.

This is because where we do not properly manage the discharge of effluents, it can have significant unfavorable effects on the lagoon, which in turn, can affect the marine ecosystem and our relationship with the communities and other water users. Waste water from our power generating facility and housing colony is usually discharged into the Lagos lagoon which spans over a surface area of 6355km².

Planned water discharges include effluents from cooling water which is used in the plant for steam and auxiliary equipment cooling. This water is drawn from the lagoon with the aid of six 32,600m³/hour capacity pumps for each of the steam turbine units.

The total volume of planned water discharge from the demineralization plant and condensate polishing plant



in 2016 was an estimated 26028m³. We perform additional checks and further treatment where necessary on the fresh water produced by the water treatment plant and the closed system feed-water respectively using an ion exchange technology.

Also, waste water from the demineralization plant and other operational processes are first discharged into neutralization sump pits and after undergoing close condition moni-

toring and treatment to control and neutralize the pH levels to meet the required standards, it is released into the lagoon. In 2016, the pH was maintained at an average of 7.5. The quality of water is usually taken from various points before discharge and is treated based on analysis carried out on samples taken. All these are geared towards meeting local and international standards that have been set to guarantee safety for aquatic life and other industrial processes.

	pH	Conductivity (µS/cm)	Temperature (°C)	COD (ppm)	Total Hardness	Chloride	Total Iron
Average value for the year 2016	7.5	1414.3	27.1	53.2	249.5	1616.3	618.2
FMENV/NESREA limit	6.0-9.0	NS	40	100	NS	19000	2000

*NS - Not specified

Thermal emissions have been identified as one of the material aspects of our environmental sustainability. The temperature of the discharge water which affects the level of dissolved oxygen, if too high may cause permanent damage to the fragile ecosystem in the lagoon. Therefore,

the temperature of the water was maintained at an average of 27.1°C. On the grounds that an increase in temperature leads to a decrease in oxygen levels and extremely high temperatures can be detrimental to aquatic life. As part of our safety mechanisms, concrete barriers were

installed to ensure that the bulk of the water discharged after cooling in the plant, mix with the larger water body after flowing a significant distance to dispense with heat. The Chemical Oxygen Demand which is a measure of the capacity of water to consume oxygen during decom-

position of organic matter is controlled by chlorination (dosing of calcium hypochlorite) for disinfection so as to eliminate all microbial matter and was maintained at an average of 53.2ppm.

Other monitored parameters include; conductivity, total dissolved solids, dissolved oxygen, chloride level, total water hardness and total Iron.

Based on the process design and number of resin regenerations carried out, estimated values were ascertained for the demineralization plant waste on account of the amount of water used for each of the processes.

Totalizers to monitor the quantity of water discharged are currently unavailable. Hence, total flow of waste water from cooling is calculated based on an estimate of total power in megawatt generated over the reporting year and the cooling water pump capacity.

Furthermore, the discharge water from the plant cooling system - which is not used by other organisations, was estimated as 700 million m³ for the reporting year.

In our quest to improve on the documentation of plant discharge, daily waste water flow totalizers would have to be provided.

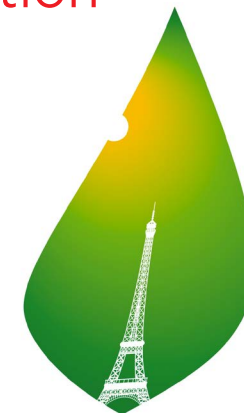
Climate Change and Sustainable Electricity Generation

The Paris Accord

For a power company like Egbin Power Plc that generates electricity from fossil fuel such as natural gas, the 2016 sustainability report will be incomplete without the mention of the agreement that was reached by the members of the United Nations Framework Convention on Climate Change on 22nd April of the reporting year.

As John Kerry - the former US Secretary of State, signed the agreement on behalf of the United States with his granddaughter sitting on his lap, that day will be remembered in history as the crucial moment when the world chose to stare climate change in the face and tackle the challenge head-on in order to protect and conserve the environment for the generations yet unborn.

Nigeria and 195 other countries put pen to paper agreeing to cut down on emissions as soon as possible in order to stem the threat of the global increase in temperature by



COP21 · CMP11
PARIS 2015
UN CLIMATE CHANGE CONFERENCE

ate carbon emission and administer specific fiscal pressure and penalty required to ensure disincentive in carbon emission, were not comprehensively captured in the agreement. Be that as it may, the Paris agreement recognized the rights of countries to use emissions reductions outside of their own jurisdiction towards their Nationally Determined Contributions in essentially a system of carbon accounting and trading, and also established the framework to govern the International Transfer of Mitigation Outcomes, Egbin currently operates in Nigeria where carbon emissions accounting is

2°C. Even as climate change scientists and professionals have been expressing concerns that the emission reduction goals set may not be sufficient to keep the global temperature increase under 2°C, they are also concerned that current emission curtailment targets may result in 3°C rise in global temperature.

In addition, climate scientists are of the opinion that the lack of enforcement mechanisms needed to evalu-



partially enforced by the regulatory agencies, but carbon trading is not.

Fundamentally, carbon trading involves countries with more carbon emission purchasing the right to emit more carbon from countries that have less emission. This concept was established to limit the quantity of carbon emitted by countries to their allotment.

Due to the cooperation that the International Transfer of Mitigation Outcomes provide using the United Nations Framework Convention on Climate Change platform, pressure on countries like Nigeria to develop emission management system will be sustained, in order to meet its Nationally Determined Contribution by monitoring carbon emission units.

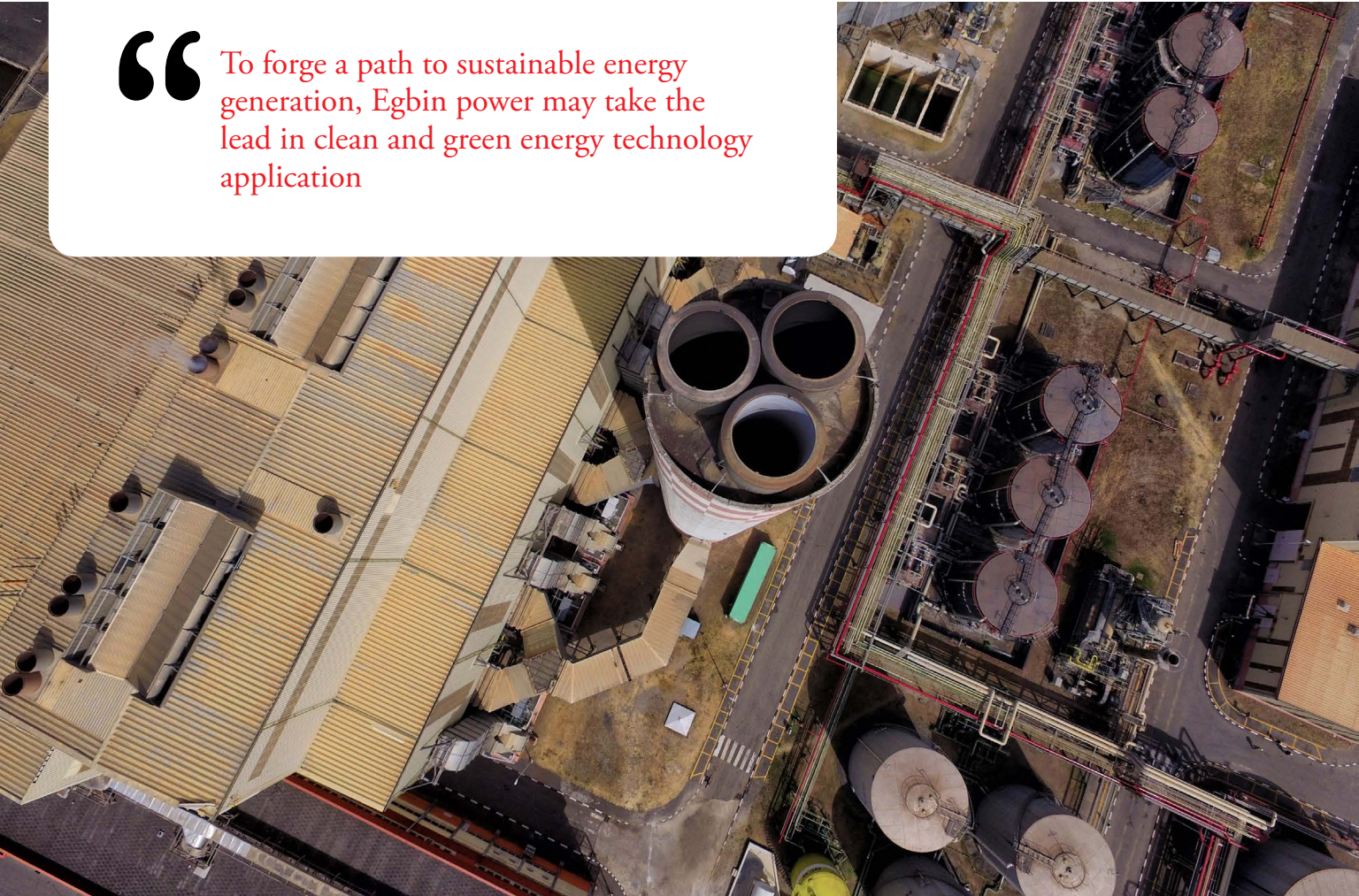
However, in the revised national policy on the environment, the Federal Government of Nigeria has decided on a couple of issues that are key to the protection and conservation of the environment. These decisions include:



- The development and implementation of a national strategic road map for responding to climate change.
- The domestication of the globally-agreed climate change regime of the United Nations Framework Convention on Climate Change including the implementation of the Nationally Determined Contributions and the Paris Agreement.
- The development and implementation of an integrated financial strategy for climate change response.
- Strengthening the national climate change institutional structure and governance to include active participation by the States and Local Governments.

Resultantly, fossil fuel plants and other privately owned CO2 emitters like Egbin power station, may take the lead in clean and green energy technology application so as to forge the path to sustainable energy generation and consumption leveraging on sustainable social and environmental corporate strategies in order to develop an environmentally conscious electricity market, even in the face of threats like policy somersault that may occur.

“ To forge a path to sustainable energy generation, Egbin power may take the lead in clean and green energy technology application



Green House Gas Management

In simple terms, emission is sending out something from a specified source that could usually consist of harmful substances which might endanger the environment. In this case, it refers to flue gas and its constituents as the products of combustion in fossil fuel fired power plants.

These emissions contain greenhouse gases, primarily CO2. Increased greenhouse gas emissions lead to higher concentrations in the atmosphere, which contributes to climate change, including increased temperatures and more variable and erratic weather patterns. The average temperature of the Earth has risen between 0.4 and 0.8 °C over the past 100 years. The increased volumes of carbon dioxide and other greenhouse gases released by the burning of fossil fuels, land clearing, agriculture, and other human activities, are believed to be the primary sources of global warming that has occurred over the past 50 years.

Climate change refers to significant changes in the global climate and it refers mostly to climate change caused by human activity, as opposed to changes in climate that may have resulted as part of earth's natural processes. Climate change includes global warming and everything else that could increase greenhouse gas levels.

At Egbin, energy, emissions, water and waste are key components of our sustainable strategy. As we strive to meet the growing demands for energy across the nation while keeping in mind Greenhouse Gas (GHG) emission which is a major contributor to climate change and other environmental issues, we have identified GHG and its control as a material aspect and intend to treat it with the seriousness it deserves.

“ Innovative technologies are being deployed to monitor and control harmful emissions and to ensure our operations are following environmental regulatory standards.



10.8%
Reduction in
pollution levels
in 2016

Safety being at the top of our core values, has also been extended from employee and equipment to the environment. For this reason, we are steadily advancing initiatives towards the reduction of CO2 emissions on a large scale.

Innovative technologies are being deployed to monitor and control harmful emissions and to ensure our operations are following environmental regulatory standards.

We have continued to ensure the management of our plant emissions through operational efficiency by firing the generation plant mainly on natural gas because as it is the cleanest and most environmentally friendly fossil fuel as opposed to heavy fuel oil (which is high in Sulphur content and has a higher CO2 emission rate) and constant monitoring of our stack emissions.

In 2016, Egbin power station ran on heavy fuel oil for a total of two days due to gas constraints and this resulted in 30% increase in CO2, NOx, SOx and soot pollutants, if compared to the emissions recorded when firing on natural gas.

Our direct Scope of GHG emissions consists of emissions from our Egbin power plant facility where 0.5876tons of CO2 equivalent per MWh was emitted in the reporting year. This facility accounts for the larger proportion of our carbon dioxide emissions. Our direct greenhouse gas emission is comprised majorly of emissions from sources and operational processes owned and controlled by us which is our stack emissions.

Combustion is an exothermic process and hence heat is lost to the surroundings leading to a dip in energy. By monitoring and regulating the gases in our stack, we attempt to keep heat losses to a minimum, so as to maximize combustion efficiency, which in turn conserves fuel and lowers expenses. We also calculate how effectively the combustion process runs. This is to enable us achieve the highest levels of combustion efficiency. By doing this, we believe that complete combustion should take place as we ensure that there enough air in the furnace for complete combustion to occur. This addition of excess air greatly lowers the formation of Carbon monoxide (CO) by allowing the CO react with the excess O2. The less CO remaining in

the flue gas, the closer to complete combustion the reaction becomes. Based on results from flue gas analysis, CO concentration is always null in our stack emissions therefore confirming complete combustion.

In the reporting year 2016, the gross CO2 emissions was 2.58 million metric tons based on stoichiometric calculations by direct measurement of natural gas consumed and conversion to GHG CO2 equivalents.

Considering that in 2015, we recorded and reported 2.86 million metric tons of CO2, the downward trend may be as a result of the relatively lower power generated in 2016 and other conscious efforts to minimize harmful pollutants.

In the coming years, we will look into enhancing our GHG inventory

by collecting other GHG emission sources which include our gas turbine exhaust gases, emissions from the company vehicles etc. This will be to ensure thorough carbon footprint calculation.

In ensuring the quality of air within and around the power generating plant is within permissible regulatory limits and employees and the general public are not exposed to hazardous substances in the air, our Quality, Health, Safety and Environmental Consultants perform air quality measurement-monthly.

The reports provide us with the necessary recommendations that assist the company to predict the impacts on the ecosystem. Also, the air quality report issues pointers to factors that will ensure

better environmental performance and sustainability.

Sampling and analysis of noxious gases – SO2, CO, NO, CH4 and O2 were conducted at different locations within the plant premises and the results shown in the table below were generally satisfactory with respect to the Federal Ministry of Environment, National Environmental Standards and Regulatory Enforcement Agency and the Lagos State Environmental Protection Agency standards.

However, to further promote the occupational health & safety culture of Egbin, employees were encouraged to comply with the established occupational health and safety policy and programmes and to ensure continuous usage of personal protective equipment.

Waste Management

We are aware that the by-products of the power generation, office and domestic processes in the Egbin power plant facility, if poorly managed could result in epidemic diseases and grave health challenges for the immediate communities and the larger society. Therefore, Egbin Power Plc has made it a point of duty to ensure that our waste management system, not only complies with the regulations spelt out by the State and Federal environmental protection agencies, but also with international standards.

In doing this, the solid, liquid and hazardous wastes that are generated during the operation of the power plant which ranges from garden wastes, metal scraps, burnt electrical bulbs, food wastes, waste water and gaseous waste are usually stored on site and then contracted out for disposal depending on the type of waste.

Solid Waste

Nine tons of solid waste – mainly office and domestic, is generated in the Egbin plant facility and disposed on a weekly basis. In compliance with environmental regulations, the Lagos State Waste Management Authority (LAWMA) are granted access to the plant facility periodically to evacuate the waste that may have been produced. Appropriately, the LAWMA convey the waste safely and timely to designated and approved landfills.

Liquid Waste

We procure the services of the Lagos State Environmental Protection Agency (LASEPA) to manage our liquid wastes - mostly unusable lubricating and transformer oils. Prior to

the disposal of these liquid wastes, our dedicated Chemistry team perform physical examination, crackle test, moisture content, viscosity, flash point, particle count and demulsibility tests in order to ascertain that the oil may no longer be subjected to the oil purification system at Egbin.

Owing to the fact that Egbin power plant has six oil purifying systems – one for each steam turbine, for regenerating the lubrication, sealing and hydraulic oils, and a station oil purifier that is common to all steam turbines, we endeavour to continuously decontaminate the oil in order to reduce oil disposal frequency. Even when the oil is eventually disposed, it is recycled by LASEPA accredited third parties.

In gauging the effectiveness of our waste management system, in the year 2016, no spill was recorded within the power plant, therefore zero spill activities occurred for oil, fuel and chemical spill either on soil or water surface. The Company's operation complied with regulatory requirement and best practices on environmental management. As a result, the host communities are still going about with their normal fishing business.

Hazardous Waste

Being guided by the principles of environmental responsibility, we continue to leverage on the systems and procedures provided by the United Nations Environment Programme, the Federal Environmental Protection Agency and the Lagos State Environmental Protection Agency in order to effectively and efficiently manage hazardous waste. Consequently, some of the hazardous wastes which are by-products of water treatment, demineralization and resin regeneration are tested

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We procure the services of the Lagos State Environmental Protection Agency (LASEPA) to manage our liquid wastes - mostly unusable lubricating and transformer oils.



for acidity and alkalinity prior to discharge or evacuation. The pH of all chemical waste especially process waste, is kept within the regulatory limit of 6.5 and 8.5.

Chemical wastes like low capacity resins are disposed by the LASEPA and procured by third parties who may require such low grades of resins in their plants. In the year under review, Egbin power plant generated and evacuated 468 tons of hazard and non-hazardous waste. Other hazardous wastes generated were used lubricants, waste oil, and printer cartridges. In addition, zero ton of hazardous waste was neither transported, imported, exported nor treated for transportation to any other country. The Lagos State Waste Management Agency is responsible for the evacuation and transportation to approved dump site.

PARAMETERS / READING

S/No	Locations	(NO), µg/m3	(CO), µg/m3	SO2, µg/m3	(CH4), µg/m3	O2%	TSP µg/m3
	NESREA LIMITS	313	30,000	425	NS	NS	250
1	Car lot	ND	1300	ND	ND	20.1	20
2	Reception	ND	250	ND	ND	20.0	19
3	Chemistry Unit	ND	600	ND	ND	20.0	20
4	Boiler	ND	1,200	ND	ND	20.0	65
5	1st Floor	ND	1002	ND	ND	20.0	30
6	2nd Floor	ND	1850	ND	ND	20.1	31
7	Turbine Floor	ND	2800	ND	ND	20.0	80
8	Demin Office	ND	1900	20	ND	20.1	40
9	Kitchen	ND	1800	ND	ND	20.1	22
10	Store	ND	800	ND	ND	20.0	30
11	Boiler - Furnace	55	2000	25	ND	20.0	80
12	Boiler - Burner	45	2004	32	ND	20.1	99
13	Hydrogen Plant Area	ND	1100	27	ND	20.0	65
14	Gas Turbine generator	20	1200	30	ND	20.2	75

NESREA is the National Environmental Standards and Regulatory Enforcement Agency

TSP is the Total Suspended Particle

Resource Management

Water Utilization

Egbin power station was designed to generate 1320MW with only the process fluid i.e. water, in its closed cycle, without the need for additional water. Provisions were however made to compensate for the water in its closed system with make-up water, in the event of losses which may be in form of leakages, drains, vented steam, etc.

As a power company that utilized 574,593 metric tons of demineralized water in 2016 for steam production and closed-circuit cooling, we are cognizant that the scarcity of water will not only threaten the sustainability of our business operations, it may also affect 40% of world population, more so with climate change expected to increase global temperature by 20C.

The usefulness of water in a steam power plant cannot be overemphasized. Besides its obvious applicability as the process fluid, a large body of water is required as a heat sink in the efficient recovery of steam in the power generation cycle. Water is also used for cooling, firefighting, industrial, domestic as well as sanitary purposes.

Egbin power station extracts water from two major sources; ground water from six underground wells and surface water from the Lagos lagoon. In 2016, an estimated 1.11 metric tons of ground water was pumped.

This amount is the arithmetic product of the average total pump discharge rate (observed real time on the water treatment plant's human machine interface) per month and the average pump running period per month, evaluated for the entire year. Also, each steam turbine unit



“Being a very important sustainable development goal of the United Nations Development Programme, clean water and sanitation has been instituted as a crucial component of the Egbin Environmental Principle,

is equipped with two 50% duty Circulating Water Pumps (CWPs) which draw water from the lagoon at the rate of 17,700m³/hour for process-water recovery in unit condensers and open-circuit cooling of unit auxiliary equipment. In addition to the CWPs, three Lagoon Water Pumps (LWPs) are also provided to draw lagoon water primarily for open-circuit cooling of the power station common auxiliaries. During normal operation, only one of the three pumps functioned with a maximum discharge rate of 1765m³/hour. Currently, there is no process or equipment in place to recycle effluent or waste water from both sources for reuse; however, there are effective measures, operations and processes established and installed to ensure the safe and environmental-friendly disposal of waste water.

Being a very important sustainable development goal of the United Nations Development Programme, clean water and sanitation has been instituted as a crucial component of the Egbin Environmental Principle, which is part of Egbin Power Plc's four business principles of People, Conduct, Society and Environment. It is imperative to the sustainable operation and maintenance of Egbin power station, that the availability of water is secured. Being a steam power station operating a closed thermal cycle, the power station may be efficiently operated in order to reduce the amount of ground water intake required for steam production, thus reducing water drawn from the aquifers. Operational efficiency is our watch word in the running of the plant because we believe that this is needed in order to continuously gen-

erate power at the lowest possible cost whilst driving down the costs of pumping energy, water treatment and demineralization when we generate electricity with zero or minimal makeup water. Hence, the elimination of excessive pumping and water scarcity to the benefit of humanity.

Energy Consumption

In the generation of electricity in Egbin power station, the use of renewable fuel is not applicable, as the steam boilers may be fired with only natural gas and heavy pour fuel oil. If available at the suitable pressure and volume, the fuel may enable the steam turbine and generator to ramp up its production of electricity to the maximum continuous rating of 220MW. At times when there is no power on the national grid, maybe due to an electrical surge; a transient fault; or a tripped transmission line carrying a significant amount of grid power, this sometimes results in the total loss of power on the national grid because of the high deviation from the system characteristics like frequency of 50 Hz and voltage of 330KV. There is always a need to restore power back to our systems in the absence of imported power – a process known as black start.

So, in process of black starting our plant and subsequently the national grid, Egbin utilizes its emergency diesel generator to power its auxiliaries before using its gas turbine generator to energize its black start electrical board, the station boards and thereafter the equipment and auxiliaries of the steam turbine units. From there on, the steam turbine units are brought to normal power generating operation having powered up its individual auxiliaries and synchronized to the grid, the emergency diesel and gas turbine generators are switched off. During these processes and periods, the emergency diesel generator runs on diesel, the gas turbine and the steam turbine units run on natural gas.

58.7 Million

Amount of natural gas consumed in 2016 (joules)

2.88 Terra

Amount of diesel consumed in 2016 (joules)

13.8 Terra

Amount of Light Pour Fuel Oil (LPFO) consumed in 2016 (joules)

In the 2016 reporting year, 58.7 million terra joules of natural gas, 2.88 terra joules of diesel and 13.82 terra joules of Light Pour Fuel Oil (LPFO) were consumed.

As stated earlier, plant auxiliaries need to be powered in order for the steam turbine units to generate electricity to the grid. The power consumption of these equipment - pumps, compressors, electric motors etc. constitute the highest percentage of energy that is consumed within the plant. During the reporting period, 255.7 GWh was consumed by the station and its auxiliaries in the year under review, with an energy intensity – the ratio of energy consumed and energy generated, of 0.058.

Furthermore, heat is generated from the combustion of natural gas and atmospheric air in the boiler. During the course of this combustion, heat is absorbed by the boiler feed water and steam, while some heat energy is allowed to be conveyed with the flue gases through the stacks to the atmosphere. Even though we understand that the total heat consumed is the difference between the total heat generated and the total heat lost, the heat consumed cannot be accurately measured and accounted for, as there is insufficient informa-

tion and unavailability of sophisticated instruments to monitor consumption.

To address this going forward, information will be tracked during the next system overhaul.

In calculating the energy and power of Egbin power station, the American Standard for Mechanical Engineers (ASME) is the applied standard and the methodologies for the calculations were derived from metering instruments. Additionally, in calculating the energy consumed from diesel fuel, the minimum specific gravity was assumed, just as the calorific value used for the natural gas energy consumption was provided by the Nigerian Gas Company and the mass flow was derived from the vortex flow meter.

In addition to the energy consumed within the organisation, Egbin Power Plc transmits electricity to the housing estate occupied by its employees, a government health clinic and the Nigerian Gas Company. We consider this energy consumption to be part of the station consumption as there is no specific instrument dedicated to the measurement of energy consumed in the aforementioned facilities. Judging by the investment made and reported in the sustainability report of 2015 towards the reduction of energy consumption from 7% to average 5.5%, we believe that we are still on course to ensuring that more power is made available to the national grid at the minimum emission of greenhouse gases and at affordable cost to Nigerians.



Social Responsibility

IN THIS SECTION

- Stakeholder Dialogue
- Community Relations
- Occupational Health and Safety
- Security Management System
- Our People
- Training and Education
- Diversity and Equal Opportunity
- Scholarship Programme
- Our Investment in the Next Generation of Leaders



Stakeholder Dialogue

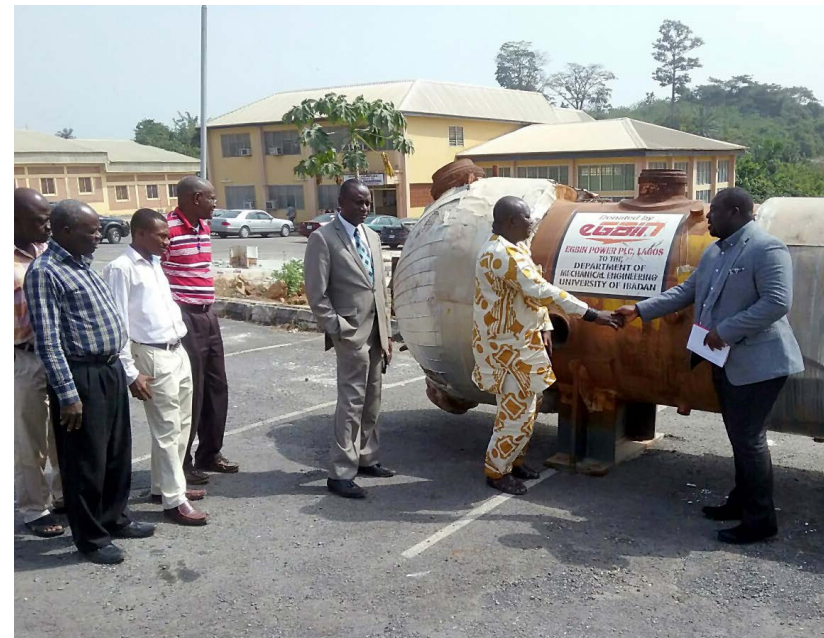
Among the four forerunners of our sustainable management system, the company's social relations with its stakeholders, remains a core part. In 2015, the company instituted a stakeholder management system, which outlines the main challenges to the company by analyzing, assessing and setting out the expectations of the stakeholders, towards putting in place a mid-to-long term plan for sustainable management.

Community Relations

Community Engagement Framework

Egbin's commitment to service and fostering development of her local communities (Egbin, Ipekan and Ijede) has always been synonymous to its operational activities. The company ensures that we involve and actively engages all stakeholders who are directly and indirectly affected by its operational decisions. The continuous engagement of our stakeholders is aimed at communicating our core values effectively, providing opportunities for better understanding and participation in the decision-making process giving Egbin the needed support and co-operation at all times.

Egbin is committed to building and growing mutual and beneficial working relationships with her neighboring communities. These relationships are established and maintained through frequent dialogues with the aim of ensuring transparency and trust. These dialogues are predicated on a foundation of respect for languages, customs, cultural institutions and rights. In order to build a solid platform within Egbin Power Plc to support partnerships and capacity development initiatives with the local communities, Egbin invested in several initiatives. They are as follows:



“
Egbin's commitment to service and fostering development of her local communities



Improved Health care



At Egbin, we believe that being a sustainable organisation includes helping improve the quality of life for local community residents through community initiatives in the areas of health and safety. In 2016, Egbin continued to support its commitment to the “Anti-Malaria” campaign, through the monthly donation of drugs to prevent and treat malaria, at Ijede General Hospital. This initiative was incorporated into the organisations corporate social responsibilities in 2015 to improve the health care system within its localities.

“

In 2016, Egbin continued to support its commitment to the “Anti-Malaria” campaign, through the monthly donation of drugs to prevent and treat malaria, at Ijede General Hospital. This initiative was incorporated into the organisation's corporate social responsibilities in 2015 to improve the health care system within its localities.

Egbin regularly invests in partnerships that help support healthier communities and a healthier environment, through environmental education, protection and recycling.

In 2016, Egbin marked the world environment day, in partnership with Sahara Foundation at Power Field Group of schools, organizing a lecture for young leaders on “How to Care for the Environment”. The Program which brought together representatives from all participating

organisations, as well as students and instructors from Power Fields Group of schools (Nursery, Primary and Secondary) were trained on the benefits of proper care of the environment. A competition was organized for the students in different arms of Power Fields, to utilize waste

materials in innovative ways for household uses and decorations. Egbin contributed waste drums to each arm of the schools, encouraging the students to classify wastes into their different categories, for the safety of the environment.



Egbin marked the world environment day with a lecture for young leaders on “How to Care for the Environment” in partnership with Sahara Foundation

Relationship with Stakeholders

In 2016, Egbin's relationship with stakeholders helped to ensure a high level of business performance, professionalism and application of global best practices while minimizing and effectively managing risk. At Egbin, we always ensure that we uphold the values of honesty, partnership and fairness in our relationships with our stakeholders. During the reporting year, Egbin provided support for the development of these stakeholders through training courses and use of our facilities to hold seminars and industry meetings. In conjunction with our stakeholders, Egbin will continue to provide and strive to maintain a clean healthy and safe working environment in line with our health and safety policy and safety mechanisms. This can we have achieved and will continually strive to maintain through the following:

1. Providing accommodation facilities to critical operatives, in line with Board approvals.
2. Putting in place and communicating a standard maintenance procedure on the allocated accommodation facilities to forestall use of unauthorized persons carrying out routine and ad-hoc maintenance activities on the facilities.
3. Subject to meeting entry standards, admission opportunities into Power Fields group of schools should equally be made available to these stakeholders;
4. Constitution of an all-inclusive committee to meet regularly and discuss critical issues with a view to resolving them amicably, providing desired support and co-operation amongst stakeholders, and improving operational communication; and
5. Paying courtesy visits and familiarization tours to the premises of these stakeholders at least twice a year to be abreast of their operations, activities and challenges.



Occupational Health and Safety

Egbin's health promotion initiative provides employees with education and resources that empower them to manage and take necessary actions in the improvement of their overall well-being. It is believed that a healthy work force increases the productivity of the organisation, through reduced accident rate, lesser downtime, that could result from human errors towards ensuring efficient service delivery. The organisations health and wellness policy facilitates quarterly health education and checkups for every member of staff. The employees are engaged in an interactive session with health experts from accredited HMO (Health Maintenance Organisation) on topics ranging from daily bodily care, to prevention actions against diseases and permanent bodily defects. Egbin's employee and family health care programme, provides health insurance cover for every member of the immediate family of employees. In 2016, the organisation reviewed its health insurance cover with HYGEIA HMO, improving the health insurance cover for its employees alongside, extended access to more health care facilities. The organisation has remained committed to its monthly mandatory physical exercises of all staff members, to improve fitness and heart condition. Consistent with Egbin's health and wellness policy, we specifically ask our employees to be accountable for maintaining and/or taking positive steps to achieve a state of health that is required for their job designations. The health work and aerobics sessions serves as one of the initiatives tied with the health and wellness policy of the organisation.



“

In 2016, the organisation reviewed its health insurance cover with HYGEIA HMO, improving the health insurance cover for its employees alongside, extended access to more health care facilities

Security Management System

In the reporting year, we worked with community and national law enforcement agencies to ensure that the company provided efficient and effective security for the plant and employees. Egbin utilized a robust system using modern state of the art security technologies as well as continued intelligence provision and monitoring to provide a safe environment at the company locations. In 2016, the security system of the entire facility was revamped to further ensure protection for both employees and the plant. The organisation invested in the purchase of equipment and employment of well-trained security management personnel.





Our People

At Egbina, we strive to create a workforce that is resourceful, dedicated and innovative, through qualitative recruitment processes and on the job training activities. Our employees and the need for continuous system improvement provides the basis to efficient and effective service provision to the power generation market. We have ensured the availability of tools, resources and support our employees in making valuable contribution to their communities

while experiencing opportunities for personal growth.

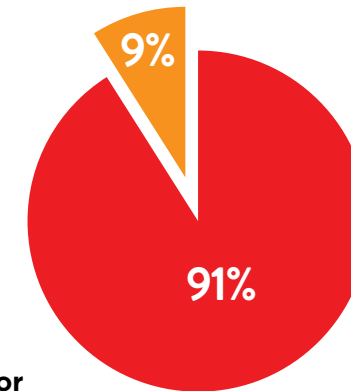
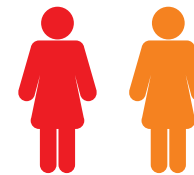
In the 2016 reporting year, Egbina had 386 Permanent Employees as against the 393 figure that was reported in 2015. 91% of the Permanent Employees were male while 9% were females. The organizations quest to ensure, it empowers the younger generation, through short term, long-term and "on the job" skill acquisition trainings, created opportunities for 72 Undergraduate Interns and 8 Graduate Interns.



386
Employees

4%
Employee Turnover

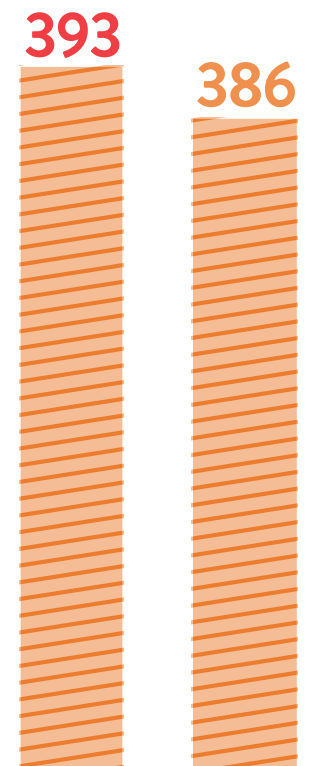
Employee Demography



Opportunities created for

72 Undergraduate Interns

8 Graduate Interns



Temporary Employees
Permanent Employees

EGBIN STAFF STRENGTH



At Egbin we respect our employees, treat them fairly and ensure there is no room for discrimination either directly or indirectly. In the 2016 reporting year, Egbin Corporate Governance Framework, Code of Conduct and Business Principles was implemented, stating the commitment of the organisation to upholding the following principles through its process of operation:



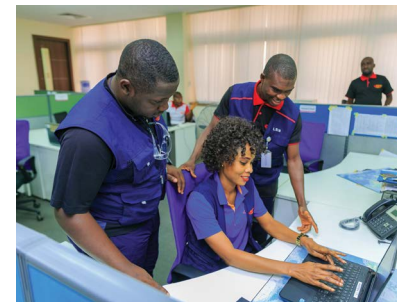
Our Business People

- We provide healthy, safe and secure work environments
- We improve staff motivation, morale and sustain employee engagement
- We ensure that employees are provided with a well-rounded career experience
- We believe that all injuries are preventable
- We provide world class customer service to our clients



Our Business Conduct

- We act with integrity, accountability and transparency
- We comply with legal, regulatory and licence requirements
- We do not tolerate corruption in any form, whether direct or indirect
- Our investment criteria take account of economic returns, environmental impacts, social consequences and human rights
- High standards of corporate governance are integral to the way we manage our business



Our Business Society

- We work to ensure that neighbouring communities benefit from our presence on an enduring basis
- We listen to neighbouring communities and take account of their interests
- We support human rights within and outside our areas of influence
- We ensure people in our business communities have value enhancing services that constantly improve their welfare



Our Business Environment

- We make a positive contribution to the protection of the environment
- We go beyond compliance with local environmental regulation to meet internationally accepted best practice
- We reduce to the minimum practicable any adverse effects of our operations on the environment

Training and Education



29 Average training hours for staff in 2016

Grooming Future Leaders

The training, support and development of employees are core priorities for ensuring an efficient workforce. We have integrated a formal learning process more strongly into the working day, as well as on systematic talent management. In order to achieve our vision of “being the provider of choice wherever energy is consumed”, we need employees who are ready to continually face new challenges and are innovative in providing solutions for such challenges.

Trainings

In the 2016 reporting year, there were 29 training hours per head, a reduction compared to 2015. This reduction is attributable to the economic recession, which affected the contractual relationships between Egbin and its technical partners. The organisation leveraged on “in house learning and development initiative across functions and cross function. The in-house learning and development

initiative “Egbin X-change” was incorporated into the Human Resources Training curriculum to enlighten every employee, on various facts relating to the operations of the different departmental activities. The learning and development curriculum of Egbin is divided into three categories - operational, leadership and soft skill proficiency.

In February of the reporting year, the corporate governance framework, code of conduct and business principles guidelines were implemented into the company’s operational policies. In the 2016 reporting year, employees received the highest level of learning and development interventions hours the operations curriculum, while soft skills proficiency curriculum had the least number of hours per employee. A learning and development road show was carried out to enlighten employees on the Corporate Governance, Code of Conduct and Business Principles guidelines with key emphasis placed on the whistle blowing guidelines and its management system.

“ A learning and development road show was carried out to enlighten employees on the Corporate Governance Guidelines, Code of Conduct and Business Principles with emphasis on the whistle blowing guidelines and its management system.

Diversity and Equal Opportunity

Egbin embraces diversity in its broadest sense, valuing all human differences that make individuals unique. Our belief in a culture that values diversity and inclusion has made our work environment more hospitable and increased productivity. Based on the organisations policy on Human Rights on “Respecting diversity and non-discrimination” which was adopted in February 2016, Egbin discourages any act and/or form of discrimination and is committed to ensuring that its employees and potential employees are treated with respect for diversity, to promoting fairness and equal opportunities.

Promoting gender equality at the highest levels of business guaranteeing equal treatment for all employees irrespective of gender, respecting and supporting human rights and non-discrimination; ensuring the health, safety and wellbeing of all employees, promoting education, learning and development, has been among our guiding principles as an organisation. The organisation buttressed its stand against discrimination, through an anonymous whistle blowers email address. (expressyourself@egbin-power.com). In concordance with equality in the workplace, we have put together childcare support systems, ensuring a work life balance for both genders in the work place. Some of the packages of the organisations childcare support system includes the parental leave, daycare and educational services within the premises of the organisation. Building on the previous year, where we had less the 1% usage of the parental annual leave, in the 2016 reporting

year, 5% of the employees utilized the parental leave. The parental leave, which serves as a paid leave of absence from work for parents (Male and Female) with new babies, includes a flexible working time for the female employees, to ensure a smooth transitioning after their maternity leave period.



“ Our belief in a culture that values diversity and inclusion has made our work environment more hospitable and increased productivity

Environment

Environmental protection is one of our major responsibilities, as a sustainable organisation. We ensure, we prudently use the natural resources within our environments, without posing a threat to their existence. In 2015, Egbin recorded about 800 liters of oil spillage, which was controlled within the premises of the organisation. The organisation mitigated this occurrence by establishing an oil spill management system, focused on the prevention of oil spills. In the 2016 reporting year, Egbin recorded ZERO Spill. As an organisation, we are committed to ensuring protection for the aquatic life and bio-diversity in our environment.



Amount of Spill Recorded in 2016

“As an organisation, we are committed to ensuring protection for the aquatic life and bio-diversity in our environment.”

Education

As part of the company's Personal Corporate Social Responsibility principles, the company's employees marked the world book day with students, from AUI Primary School in Ijede, donating books and organizing reading sessions for the students of the school. **This event was marked in collaboration with Sahara foundation, to encourage the next generation of potential employees of the company in acquiring knowledge through the reading of books.**



Scholarship Programme



Investing in our future extends beyond creative technologies and innovative approaches; it also means investing in access to quality education, leadership and development of the next generation of potential talents and/or stars. Education is a fundamental key in the development and sustainability of a healthy society and economy. In the 2016 reporting year, Egbin introduced a scholarship programme, for primary and secondary

school's students, who are indigenes of our neighboring communities. The scholarship programme, which guaranteed admissibility into Power Field Group of schools upon excellent performance in meeting the school's standards, was based on merit. In the 2016 reporting year, six indigenes were beneficiaries of the Egbin scholarship programme. The scholarship programme will be reviewed in 2017 to support more indigenes who are students through further levels of education.

Community

As part of stakeholder management system, Egbin directly engages with the community, through its quarterly community forum towards understanding their concerns. The meetings are structured to ensure that all parties share their concerns and/or opinions, on how the organisation can further exist in a mutually beneficial relationship. In the 2016 reporting year, a total of... grievances were addressed during the (please provide the number of meetings) quarterly meetings. The organisation makes it a point of responsibility to visit the community rulers once every year, alongside support and partake in the communities' cultural events.

Egbin continues to invest in the economy of the neighboring communities by ensuring skilled and unskilled recruitments are conducted frequently. In the quest to empower the communities, some organisational arms of Egbin, gives recruitment priority to indigenes of the local

communities during recruitment. In the 2016 reporting year, 27% of the organisational staff strength was made up of indigenes of the local communities, to further strengthen the relationship between Egbin Power plc and the local communities. Furthermore, the following initiatives were implemented in the 2016 reporting year:

- Provision of employment opportunities (skilled and unskilled)
- Intensive training programme for skills acquisition - for youths
- Synergy with Ikeja Electric in promptly resolving electricity supply and distribution issues in the communities.
- Employment of locals, (both skilled and unskilled), also encouraging our contractors to engage youths from the host communities when such needs arise.
- Quarterly community forum meeting to address issues requiring immediate attention.

Our Investment in Future Leaders

Divorcing School Management from Power Generation Company Activities

Before the takeover of Egbin Power Plc, by the private sector investors, the management of the school was directly under the supervision of the of the management of the power generation company as a department within the company. However, in 2014 after the takeover, the new Board of Egbin Power Plc mandated that the activities of the school be separated from the activities of the power generation company. This led to the change of school name initiative and the approval for the appointment of an education consulting company which would be responsible for reviewing the current system and coming up with a framework for the management and operations of the school going forward.



- Realign the school curriculum.
- Provide short, medium and long-term recommendations for transforming the school management operations and activities.

Considering the above deliverables, the following activities have been concluded by the consultants whose contracts ended at the completion of the 2015/2016 school academic year:

- Completion of a staff audit and verification exercise
- Implementation of staff training and development plan
- Re-designation and staff recruitment
- Improved classroom ambience and outlook
- Upgrade of school curriculum and textbooks for use in the schools
- Creation and implementation of a Montessori school system for toddlers
- Staff learning, development and motivational sessions



- Creation and implementation of strategies to attract non-staff affiliated students into the schools

School System Review

In 2014, the services of Roundtree Consulting an education consulting company was brought on board to review the system and provide guidance with regards to the following:

- Repositioning and restructuring the schools to meet internationally accepted standards for pre-primary, primary and post-primary education.



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- Staff learning, development and motivational sessions
- Creation and implementation of strategies to attract non-staff affiliated students into the schools
- Commencement of an e-library system
- Creation and implementation of a link with the Joint Admissions and Matriculations Board (JAMB) as a centre for writing JAMB exams.

Name Change

The name of the school was changed from NEPA Schools to Power Fields, with meaningful contributions from the students and staff of the school. This was to ensure that there was an inclusive system whereby the operators and students of the school were responsible for determining the future and sustainability of the schools rather than just through an executive fiat.

Introduction of a School Management Board

In 2015, following the review of the deliverables in line with the contractual agreements with the education consulting company, the company took steps to introduce a school's management board, which will act in an advisory capacity to ensure that the initiatives started by the consultants are being followed and im-

proved upon where necessary. Also in line with recommendations of the consultants, the company employed the services of a school administrator, who will be responsible for managing the day to day operations of the schools.

The school management board became operational in the 2016 reporting year. The school administrator also took office in the 2016 reporting year at the commencement of the 2016/2017 school year.



Appendix



GRI Standards Content Index

GRI 101: Foundation

This report has been generated in accordance with the Global Reporting Initiative Standards. The emphasis on the application of the reporting principles that should define the quality and content of a sustainability report was made by the GRI standards and implemented in this sustainability report.

In defining the report content, internal and external stakeholders were involved in the identification of where impacts occur and the potential threats to sustainable power generation. Also, the report has attempted to present Egbin's activities in the wider context of sustainability whilst completely covering material topics that specifically describe Egbin's impact on the economy, environment and society. This is to enable our stakeholders assess our performance in 2016.

In the spirit of sustainability, Egbin has ensured that the 2016 sustainability report adheres strictly to the principles stipulated by the Global Reporting Initiative that guarantee high quality reporting. These principles are very much reflected in the report, as we have ensured that the 2016 sustainability report is balanced enough to manifest both positive and negative performance in the reporting year, that will be sufficient for our stakeholders to form an opinion of our overall performance in 2016.

Additionally, the report may be compared to the previous edition, and this should enable stakeholders assess change in performance. Although this report has not been externally assured, the accuracy of this report is not in doubt as all the facts and figures disclosed are subject to audit by our stakeholders.

Furthermore, Egbin has decided to report its economic, environmental and social impacts on a regular basis, in order for stakeholders to receive timely information to make decisions. In the course of the reporting process, the clarity and reliability of the disclosures were emphasized. This was to ensure that stakeholders are abreast with the data that have been compiled, analyzed and subjected to quality and materiality checks. Also, this data has been presented in a manner that will be understandable and accessible to stakeholders.

The newly revised GRI Standards and its new 100, 200, 300 and 400 disclosure series were adopted in the production of this report, even though the full implementation of the GRI standards is scheduled by the Global Reporting Initiative for sustainability reports produced after July 1 2018. Egbin's early adoption of the GRI standards was borne from the solid GRI fourth generational framework and strong sustainability reporting system that have been instituted at Egbin Power Plc.

GRI 102: GENERAL DISCLOSURES				
GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
ORGANIZATIONAL PROFILE				
Disclosure 102 - 1	Name of the organization	Profile	Disclosed	-
Disclosure 102 - 2	Activities, brands, products and services	Profile	Disclosed	-
Disclosure 102 - 3	Location of headquarters..	-	Disclosed	7A Oluwa Road, Ikoyi, Lagos, Nigeria.
Disclosure 102 - 4	Location of operations.	-	Disclosed	One Country (Nigeria)
Disclosure 102 - 5	Ownership and legal form.	Egbin Ownership Structure	Disclosed	-
Disclosure 102 - 6	Markets served.	Business Framework	Disclosed	-
Disclosure 102 - 7	Scale of the organization.	Profile	Disclosed	-
Disclosure 102 - 8	Information on employees and other workers.	-	Disclosed	These are regular employees who are directly employed to work for the organization and are paid directly by the company. They are entitled to wages, subsidized health care, holidays, sick time and contributions to a retirement plan. The total no of permanent staff in the company as at December 2016 is 386 as against 393 that was reported in 2015. There had been some changes in the data ranging from exit and recruitment in the company (2016- Egbin 386) In 2016, 14 staff exited while 7 people were recruited i.e. 2015= 393, in 2016, 393-14= 379 +7 =386)
Disclosure 102 - 9	Supply Chain.	Organizational Supply Chain	Disclosed	-
Disclosure 102 - 10	Significant changes to the organization and its supply chain.	Supply Chain Management	Disclosed	-
Disclosure 102 - 11	Precautionary Principle or approach.	Environment	Disclosed	-
Disclosure 102 - 12	External initiatives.	-	Disclosed	International Financial Reporting Standard Global Reporting Initiative

Disclosure 102 - 13	Membership of associations.	-	Disclosed	Association of Power Generation Companies. Operators of Electricity Industry. Council for the Regulation of Engineering in Nigeria.
Electric Utilities Disclosure 1	Installed Capacity, broken down by primary energy source and by regulatory regime.	Profile	Disclosed	-
Electric Utilities Disclosure 2	Net Energy Output broken down by primary energy source and by regulatory regime.	Power Generation	Disclosed	-
Electric Utilities Disclosure 3	Number of residential, industrial, institutional and commercial customer accounts.	-	Not Disclosed	Egbin is a power generation company and due to the structure of the Nigerian power industry, does not interface with residential, industrial, institutional and commercial customers, thus Egbin does not have these customer accounts. The electricity distribution companies will have such information.
Electric Utilities Disclosure 4	Length of above and underground transmission and distribution lines by regulatory regime.	-	Not Disclosed	Egbin is a power generation company and does not directly manage above and underground transmission and distribution lines to residential, industrial, institutional and commercial customers. The Transmission Company of Nigeria and the electricity distribution companies will have such information.
Electric Utilities Disclosure 5	Allocation of CO2 emissions allowances or equivalent, broken down by carbon trading framework.	-	Not Disclosed	There is currently no carbon trading framework in Nigeria at the moment, therefore Egbin does trade CO2.

STRATEGY

Disclosure 102 - 14	Statement from the senior decision-maker.	Board Chairman's Message	Disclosed	-
Disclosure 102 - 15	Key impacts, risks and opportunities.	Business Priority	Disclosed	-

ETHICS AND INTEGRITY

Disclosure 102 - 16	Values, principles, standards, norms of behaviour.	Egbin Corporate Governance	Disclosed	-
Disclosure 102 - 17	Mechanisms for advice and concerns about ethics.	Diversity and Equal Opportunity	Disclosed	-

GOVERNANCE

Disclosure 102 - 18	Governance Structure.	Board of Directors	Disclosed	-
Disclosure 102 - 19	Delegating authority.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 20	Executive-level responsibility for economic, environmental and social topics.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 21	Consulting stakeholders on economic, environmental and social topics.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 22	Composition of the highest governance body and its committees.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 23	Chair of the highest governance body.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 24	Nominating and selecting the highest governance body.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 25	Conflicts of interest.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 26	Role of highest governance body in setting purpose, values and strategy.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 27	Collective knowledge of highest governance body.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 28	Evaluating the highest governance body's performance.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 29	Identifying and managing economic, environmental and social impacts.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 30	Effectiveness of risk management processes.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 31	Review of economic, environmental and social topics.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 32	Highest governance body's role in sustainability reporting.			Not Applicable to Core "In Accordance" Option

Disclosure 102 - 33	Communicating critical concerns.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 34	Nature and total number of critical concerns.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 35	Remuneration policies.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 36	Process for determining remuneration.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 37	Stakeholder's involvement in remuneration.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 38	Annual total compensation ratio.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 39	Percentage increase in annual total compensation ratio.			Not Applicable to Core "In Accordance" Option

STAKEHOLDER ENGAGEMENT

Disclosure 102 - 40	List of stakeholder groups.	Our Stakeholders	Disclosed	-
Disclosure 102 - 41	Collective bargaining agreements..	Procurement Practices	Disclosed	-
Disclosure 102 - 42	Identifying and selecting stakeholders.	-	Disclosed	Regulatory requirements and compliance. The Nigerian Electric Power Sector Reform Act 2005. Corporate Social Responsibility The Egbin Code of Ethics and Corporate Governance Principles.
Disclosure 102 - 43	Approach to stakeholder engagement.	Our Stakeholders	Disclosed	-
Disclosure 102 - 44	Key topics and concerns raised.	CEO's Message	Disclosed	-

REPORTING PRACTICE

Disclosure 102 - 45	Entities included in the consolidated financial statements.	-	Disclosed	Only Egbin Power Plc
Disclosure 102 - 46	Defining report content and topic Boundaries.	Board Chairman's Message	Disclosed	-
Disclosure 102 - 47	List of material topics.	Economic Section Environment Section Social Section of the Sustainability Report	Disclosed	-

Disclosure 102 - 48	Restatements of information.	-	Disclosed	Some restatements were made because the issues had neither not changed or simply continued into the reporting year.
Disclosure 102 - 49	Changes in reporting.	-	Disclosed	There were no significant changes made to the 2016 sustainability report as the reporting period in the list of material topics and topic boundaries were fairly the same.
Disclosure 102 - 50	Reporting period.	-	Disclosed	January 2016 to December 2016
Disclosure 102 - 51	Date of most recent report.	-	Disclosed	November 2016
Disclosure 102 - 52	Reporting cycle.	-	Disclosed	Annual
Disclosure 102 - 53	Contact point for questions regarding the report.	-	Disclosed	Legal, Regulatory and Compliance Department, Egbin Power Plc, expressyourself@egbin-power.com or corp.gov@egbin-power.com
Disclosure 102 - 54	Claims of reporting in accordance with the GRI standards.	-	Disclosed	This report has been prepared in accordance with the GRI Standards: Core Option.
Disclosure 102 - 55	GRI content index.	-	Disclosed	Most of the disclosures needed to be disclosed by an Electric Utility company like Egbin Power Plc, were disclosed in the content index.
Disclosure 102 - 56	External assurance.	-	Disclosed	No external assurance was provided for the 2016 sustainability report.

ECONOMIC IMPACTS

GRI 201: Economic Performance

Disclosure 201 - 1	Direct economic value generated and distributed.	Economic Performance Direct Economic Value Generated and Distributed	Disclosed	-
Disclosure 201 - 2	Financial implications and other risks and opportunities due to climate change.	Climate Change and Sustainable Electricity Generation	Disclosed	-

Disclosure 201 - 3	Defined benefit plan obligations and other retirement plans.	-	Disclosed	Egbin maintains a defined contribution Pension Scheme in accordance with the Pension Reform Act, 2004. Based on the reviewed Pension Reform Act 2014, the contribution by the employer and the employee was reviewed to 10% and 8% respectively of the employee's monthly emolument. The scheme covers 100% of the pension benefit and liabilities. The participation in retirement plans is mandatory, as it is guided by the Pension Reform Act 2014.
Disclosure 201 - 4	Financial assistance received from government.	Financial Assistance Received from Government	Disclosed	The company was able to achieve major milestones in the process of filing for the Pioneer Status that will lead to tax savings.

GRI 202: Market Presence

Disclosure 202 - 1	Ratios of standard entry level wage by gender compared to local minimum wage.	Our People	Disclosed	-
Disclosure 202 - 2	Proportion of senior management hired from the local community.	-	Disclosed	None in employment

GRI 203: Indirect Economic Impacts

Disclosure 203 - 1	Infrastructure investments and services supported.	Plant Operations and Maintenance	Disclosed	-
Disclosure 203 - 2	Significant indirect economic impacts.	Investment in Human Capital, Safety and Environment Economic Contributions to the Local Communities	Disclosed	-

GRI 204: Procurement Practices

Disclosure 204 - 1	Proportion of spending on local suppliers.	Economic Contributions to the Local Communities	Disclosed	-
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GRI 205: Anti - Corruption

Disclosure 202 - 1	Ratios of standard entry level wage by gender compared to local minimum wage.	Our People	Disclosed	-
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Disclosure 202 - 2	Proportion of senior management hired from the local community.	-	Not Disclosed	None in employment
Disclosure 205 - 3	Confirmed incidents of corruption and actions taken.	-	Not Disclosed	No confirmed incidents of corruption.

GRI 206: Anti - Competitive Behaviour

Disclosure 206 - 1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices.	-	Not Disclosed	There were no legal actions of this nature.
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Electric Utilities Disclosure: Availability and Reliability

Disclosure 206 - 1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices.	-	Not Disclosed	There were no legal actions of this nature.
Electric Utilities Disclosure 10	Planned Capacity Against Projected Electricity Demand Over the Long Term, broken down by energy source and regulatory regime.	Investments Towards a Sustainable Future	Disclosed	-

Electric Utilities Disclosure: Demand - Side Management

Former Electric Utilities Disclosure 7	Demand-side management programs including residential, commercial, institutional and industrial programs.	-	-	Not applicable
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Electric Utilities Disclosure: Research and Development

Former Electric Utilities Disclosure 8	Research and development activity and expenditure aimed at providing reliable electricity and promoting sustainable development.	-	-	Not applicable for now
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Electric Utilities Disclosure: Plant Decommissioning

Former Electric Utilities Disclosure 9	Provisions for decommissioning of nuclear power sites.	-	Disclosed	Egbin power station is a natural gas fired power plant, therefore no provision has been made for nuclear decommissioning.
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Electric Utilities Disclosure: System Efficiency

Former Electric Utilities Disclosure 11	Average Generation Efficiency of Thermal Plants by Energy Source and by Regulatory Regime.	-	Disclosed	The average generation efficiency of the Egbin power station in the reporting year was 29%.
Former Electric Utilities Disclosure 12	Transmission and distribution losses as a percentage of total energy.	-	Disclosed	The transmission losses target of the Multi Year Tariff Order of the Nigeria Bulk Electricity Trading Company is 8.05%. This is used to compute the net power generated and wheeled into the grid by the Egbin power station.

ENVIRONMENTAL IMPACTS

GRI 301: Materials

Disclosure 301 - 1	Materials used by weight or volume.	-	Not Disclosed	The information is not currently being recorded. Systems will be put in place to collate this data in the nearest future.
Disclosure 301 - 2	Recycled input materials used.	-	Not Disclosed	The information is not currently being recorded. Systems will be put in place to collate this data in the nearest future.
Disclosure 301 - 3	Reclaimed products and their packaging materials.	-	Not Disclosed	This disclosure is not applicable to Egbin Power Plc as a power generating company.

GRI 302: Energy

Disclosure 302 - 1	Energy consumption within the organization.	-	Disclosed	Energy Consumption
Disclosure 302 - 2	Energy consumption outside of the organization.	-	Disclosed	Energy Consumption
Disclosure 302 - 3	Energy intensity.	-	Disclosed	Energy Consumption
Disclosure 302 - 4	Reduction of energy consumption.	-	Disclosed	Energy Consumption
Disclosure 302 - 5	Reductions in energy requirements of products and services.	-	Disclosed	Energy Consumption

GRI 303: Water

Disclosure 303 - 1	Water withdrawal by source.	-	Disclosed	Water Utilization
Disclosure 303 - 2	Water sources significantly affected by withdrawal of water.	-	Disclosed	Water Utilization
Disclosure 303 - 3	Water recycled and reused.	-	Disclosed	Water Utilization

GRI 304: Biodiversity

Disclosure 304 - 1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	-	Disclosed	Biodiversity
Disclosure 304 - 2	Significant impacts of activities, products, and services on biodiversity.	-	Disclosed	Biodiversity
Disclosure 304 - 3	Habitats protected or restored.	-	Disclosed	Biodiversity
Disclosure 304 - 4	IUCN Red List species and national conservation list species with habitats in areas affected by operations.	-	Not Disclosed	Egbin Power Plc does not have the total number of IUCN red list species and national conservation list species affected by our operations at the moment.

Electric Utilities Disclosures 13	Biodiversity of offset habitats compared to the biodiversity of the affected areas.	-	Not Disclosed	The information is not currently available. This data will be collated and disclosed in subsequent reports.
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GRI 305: Emissions

Disclosure 305 - 1	Direct (Scope 1) GHG emissions.	-	Disclosed	Green House Gas Management
Disclosure 305 - 2	Energy indirect (Scope 2) GHG emissions.	-	Disclosed	Green House Gas Management
Disclosure 305 - 3	Other indirect (Scope 3) GHG emissions.	-	Disclosed	Green House Gas Management
Disclosure 305 - 4	GHG emissions intensity.	-	Disclosed	Green House Gas Management
Disclosure 305 - 5	Reduction of GHG emissions.	-	Disclosed	Green House Gas Management
Disclosure 305 - 6	Emissions of ozone-depleting substances (ODS).	-	Disclosed	Green House Gas Management
Disclosure 305 - 7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions.	-	Disclosed	Green House Gas Management

GRI 306: Effluents and Waste

Disclosure 306 - 1	Water discharge by quality and destination.	-	Disclosed	Effluent Quality Control
Disclosure 306 - 2	Waste by type and disposal method.	-	Disclosed	Effluent Quality Control
Disclosure 306 - 3	Significant spills.	-	Disclosed	Spill Management
Disclosure 306 - 4	Transport of hazardous waste.	-	Disclosed	Waste Management
Disclosure 306 - 5	Water bodies affected by water discharges and/or runoff.	-	Disclosed	Effluent Quality Control

GRI 307: Environmental Compliance

Disclosure 307 - 1	Non-compliance with environmental laws and regulations.	-	Disclosed	Environmental Compliance
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GRI 308: Supplier Environmental Assessment

Disclosure 308 - 1	New suppliers that were screened using environmental criteria.	Suppliers were not screened in the reporting year 2016 with environmental criteria.	Disclosed	-
Disclosure 308 - 2	Negative environmental impacts in the supply chain and actions taken.	-	Not Disclosed	The information was not taken in the reporting year 2016. Systems may be put in place to collate the information in the nearest future.

SOCIAL IMPACTS

GRI 401: Employment

Disclosure 401 - 1	New employee hires and employee turnover.	-	Disclosed	Egbin Power Plc in 2016 hired a total of seven (7) new employees – five men and two women, to fill vacant positions in various departments.
Disclosure 401 - 2	Benefits provided to full-time employees that are not provided to temporary or part-time employees.	-	Disclosed	Paid Time Off From Work Health Care Life Insurance Disability and invalidity coverage Housing Allocation Welfare packages
Disclosure 401 - 3	Parental leave.	-	Disclosed	As part of an employee benefits package, Egbin provides a variety of options for paid time off. A paid time off (PTO) policy includes paid annual leave, paid sick leave, paid compassionate leave, paid funeral or bereavement leave and paid parental leave. A PTO policy creates a pool of days that an employee may use at his or her discretion.
Former Electric Utilities Disclosure 14	Programs and processes to ensure the availability of a skilled workforce.	-	Disclosed	The Egbin Power Plc recruits qualified young graduates by internal and external recruitment processes and trains them for the intricacies of the job. It also has training programme for existing staff to develop themselves. It allows a staff member to further their educational qualification through the part time program for further individual educational development. The company also engages the services of youth corps members whose discipline is closely related to the organizational functions. There is also room for internship programmes for students and graduates of engineering, chemistry, and other business related areas.

Electric Utilities Disclosure 15	Percentage of employees eligible to retire in the next 5 and 10 years broken down by job category and by region.	-	Disclosed	In the next five years: Power Plant Operators = 4% Engineers = 6% Support Services = 1.3% Maintenance Staff = 9.1% In the next ten years: Power Plant Operators = 9.3% Engineers = 9.92% Support Services = 3.37% Maintenance Staff = 24.6%
Former Electric Utilities Disclosure 16	Policies and requirements regarding health and safety of employees and employees of contractors and subcontractors.	Occupational Health and Safety	Disclosed	-
Electric Utilities Disclosure 17	Days worked by contractor and subcontractor employees involved in construction, operation & Maintenance activities.	-	Disclosed	None
Electric Utilities Disclosure 18	Percentage of contractor and subcontractor employees that have undergone relevant health and safety training.	-	Disclosed	70% of Egbin Power Plc contractors and their employees received both formal and informal HSE training for task within or outside the power plants.

GRI 402: Labour Management Relations

Disclosure 402 - 1	Minimum notice periods regarding operational changes.	-	Disclosed	One Month
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GRI 403: Occupational Health and Safety

Disclosure 403 - 1	Workers representation in formal joint management-worker health and safety committees.	Plant Operation and Maintenance	Partially Disclosed	-
Disclosure 403 - 2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities.	-	Not Disclosed	The type of injury recorded in the reporting year were minor injury of first aid cases (FAC). Details of the injury rate, occupational disease rate, lost days' rates etc. are not available at the moment due to the unavailability of the monthly health record statistics of employees from the HMO.
Disclosure 403 - 3	Workers with high incidence or high risk of diseases related to their occupation.	-	Not Disclosed	Details are not available at the moment.

Disclosure 403 - 4	Health and safety topics covered in formal agreements with trade unions.	-	Not Disclosed	The health and safety topics covered during the monthly health talk by the HMO are determined by a democratic process of voting by all members of staff.
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GRI 404: Training and Education

Disclosure 404 - 1	Average hours of training per year per employee.	-	Disclosed	All staff members are scheduled to proceed on training annually irrespective of gender level or cadre. However, for the year 2016, there were no local or international training due to paucity of funds.
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Disclosure 404 - 2	Programs for upgrading employee skills and transition assistance programs.	-	Disclosed	On the Job Training In-house Plant Training Scheduled Trainings
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Disclosure 404 - 3	Percentage of employees receiving regular performance and career development reviews.	-	Disclosed	Male: 100% Female: 100%
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GRI 405: Diversity and Equal Opportunity

Disclosure 405 - 1	Diversity of governance bodies and employees.	Our People Gender Diversity	Disclosed	-
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Disclosure 405 - 2	Ratio of basic salary and remuneration of women to men.	-	Disclosed	Ratio 1:1
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GRI 406: Non - Discrimination

Disclosure 406 - 1	Incidents of discrimination and corrective actions taken.	-	Disclosed	None
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GRI 407: Freedom of Association and Collective Bargaining

Disclosure 407 - 1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk.	-	Disclosed	None
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GRI 408: Child Labour

Disclosure 408 - 1	Operations and suppliers at significant risk for incidents of child labour.	-	Disclosed	None
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GRI 409: Forced or Compulsory Labour

Disclosure 409 - 1	Operations and suppliers at significant risk for incidents of forced or compulsory labour.	-	Disclosed	None
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GRI 410: Security Practices

Disclosure 410 - 1	Security personnel trained in human rights policies or procedures.	-	Disclosed	Egbin employed the services of a third party company to ensure the safety and security of the facility and the environs. The third party company reports that 100% of its security personnel
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GRI 411: Rights of Indigenous Peoples

Disclosure 411 - 1	Incidents of violations involving rights of indigenous peoples.	-	Disclosed	None
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GRI 412: Human Rights Assessment

Disclosure 412 - 1	Operations that have been subject to human rights reviews or impact assessments.	-	Disclosed	None
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Disclosure 412 - 2	Employee training on human rights policies or procedures.	-	Disclosed	None at the moment.
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Disclosure 412 - 3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening.	-	Disclosed	None at the moment.
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GRI 413: Local Communities

Disclosure 413 - 1	Operations with local community engagement, impact assessments, and development programs.	Improved Health Care Safety of Marine Life Investment in the Sustainable Future	Disclosed	-
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Disclosure 413 - 2	Operations with significant actual and potential negative impacts on local communities.	Major Environmental Issues	Disclosed	-
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Former Electric Utilities Disclosure 19	Stakeholder participation in decision making processes related to energy planning and infrastructure development.	-	Not Disclosed	Egbin is currently working on the strategic document which will capture the processes and procedures for stakeholder participation.
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Former Electric Utilities Disclosure 20	Approach to managing the impacts of displacement.	-	Not Disclosed	The construction of Egbin power plant commenced in 1983 and was completed in 1989. Back then, the plant was owned by the Federal Government of Nigeria, therefore all forms of re-settlements and compensation to the locals for the impacts of the construction of the power plant, was systematically carried out.
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Former Electric Utilities Disclosure 21	Contingency planning measures, disaster/ emergency management plan and training programs, and recovery/restoration plans.	Spill Management	Disclosed	-
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Electric Utilities Disclosure 22	Number of people physically or economically displaced and compensation, broken down by type of project.	-	Not Disclosed	The records of the displaced people from their lands when Egbin power plant was constructed in 1983 is not with Egbin Power Plc at this point in time, as these records may be in the possession of the relevant government agency when the power plant was still owned by the Federal Government of Nigeria.
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GRI 414: Supplier Social Assessment

Disclosure 414 - 1	New suppliers that were screened using social criteria.	-	Disclosed	None, as this system was not in place in the reporting year 2016.
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Disclosure 414 - 2	Negative social impacts in the supply chain and actions taken.	-	Disclosed	In the reporting year 2016, no supplier was penned down to have significant actual and potential negative impact on the society with respect to our supply chain management system.
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GRI 415: Public Policy

Disclosure 415 - 1	Political contributions.	-	Disclosed	None
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GRI 416: Customer Health and Safety

Disclosure 416 - 1	Assessment of the health and safety impacts of product and service categories.	-	Not Disclosed	None, as Egbin Power plc is a power generation company, therefore does not manufacture a product whose cycle life may pose risk to the general public.
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Disclosure 416 - 2	Incidents of non-compliance concerning the health and safety impacts of products and services.	-	Disclosed	None
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Electric Utilities Disclosure 25	Number of injuries and fatalities to the public involving company assets including legal judgements, settlements and pending legal cases of diseases.	-	Disclosed	None
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Electric Utilities Disclosure: Access

Former Electric Utilities 23	Programs, including those in partnership with government, to improve or maintain access to electricity and customer support service.	-	Disclosed	Considering the fact that Egbin power plant is situated in Lagos -the economic nerve centre of Nigeria, there are plans with the Federal Ministry of Power, to dedicate unit 6 to serve the Lagos metropolis, therefore boosting economic activities in the state.
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Electric Utilities Disclosure 26	Percentage of population unserved in licensed distribution or service areas	-	Not Disclosed	Due to structure of the Nigerian power industry, Egbin is only licensed to generate electricity. Thus, Egbin are not in custody of the data with respect to transmission and distribution infrastructure, and may not be able to estimate overall and unserved population.
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Electric Utilities Disclosure 27	Number of residential disconnections for non-payment, broken down by duration of disconnection And by regulatory regime	-	Not Disclosed	Egbin Power Plc is a power generation company, and therefore does not interface directly with residential, commercial, or industrial electricity consumers.
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Electric Utilities Disclosure 28	Power outage frequency	-	Not Disclosed	Due to the structure of the Nigerian power industry, Egbin who is a power generation company, does not have in its possession the accurate number of customers served. This information is domiciled at the electricity distribution companies and the transmission company. Therefore, we cannot at the moment, accurately calculate the System Average Interruption Frequency Index (SAIFI).
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Electric Utilities Disclosure 29	Average power outage duration.	-	Not Disclosed	These are performance indices for power transmission and distribution companies, and are not applicable to GENCOs.
Electric Utilities Disclosure 30	Average plant availability factor by energy source and by regulatory regime.	Availability Factor	Disclosed	-
Electric Utilities Disclosure: Provision of Information				
Former Electric Utilities Disclosure 24	Practices to address language, cultural, low literacy and disability related barriers to access and safely use electricity and customer support services.	-	Not Disclosed	Egbin Power Plc generates and wheels out power into the national grid in a contained facility that is accessible to only authorized personnel and screened visitors. Therefore, Egbin does not relate directly or indirectly with electricity consumers. However, our signage labeling and safety warnings are written in English and Korean, which are the official languages of Nigeria and South Korea (KEPCO being our technical partner).
GRI 417: Marketing and Labeling				
Disclosure 417 - 1	Requirements for product and service information and labeling.	-	Disclosed	None
Disclosure 417 - 2	Incidents of non-compliance concerning product and service information and labeling.	-	Disclosed	None
Disclosure 417 - 3	Incidents of non-compliance concerning marketing communications.	-	Disclosed	None
GRI 418: Customer Privacy				
Disclosure 418 - 1	Substantiated complaints concerning breaches of customer privacy and losses of customer data.	-	Disclosed	None
GRI 419: Socio-Economic Compliance				
Disclosure 419 - 1	Non-compliance with laws and regulations in the social and economic area.	-	Disclosed	None



