



Meeting Power Needs Through Innovation

2018 | Sustainability
Report



Meeting power needs through innovation

ABOUT THIS PUBLICATION

This is the Fourth Sustainability Report for Egbin Power PLC.

The Data in this report covers the period of January, through December, 2018.

Financial Information is given in U.S. dollars and Nigerian Naira. This report was prepared using the Global Reporting Initiative (GRI) Standards. 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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Report 2018**

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Board Chairman's Message



We believe that access to energy is critical to accelerating sustainable development, especially in developing economies such as Nigeria. Our aim is to lead the movement to 'Light up Nigeria' and the wider sub-Saharan African region

Kola Adesina
Chairman, Board of Directors
Egbin Power Plc



Over the years, Egbin Power Plc has continued to operate in a transparent manner. In spite of the economic challenges in 2018, Egbin Power Plc remained focused on ensuring business sustainability. Therefore, we are pleased to launch our 2018 Sustainability Report, with the theme "**Meeting Power Needs through Innovation**". The power industry is characterized by constant change; and therefore, continuous innovation is required in order to remain a key player in the industry. For the reporting year, we focused on the fusion of good service and innovation in our power generation business. Through this medium, we are pleased to be sharing exclusive insights on the steps we have taken, as the largest privately-owned power generation company in Sub-Saharan Africa, towards meeting the power needs in Nigeria and Africa.

Investments towards a Sustainable Future

Egbin Power Plc currently has an installed capacity of 1320MW; and our vision is not only to double our capacity but to equally go beyond Nigeria and establish footprints across Africa. Despite the liquidity issues experienced throughout the sector in 2018, we maintained significant investments in human capital and the required enabling infrastructure that helped deliver power to the national grid. We are proud of the workforce that make up our power generation business; and they are undoubtedly our most valuable assets.

It remains part of our vision to double the capacity of Egbin power plant through our proposed Egbin Phase 2 project with an estimated capacity of up to 1,800MW. In addition, we intend to continue unit overhauls to ensure that we meet our existing power supply commitments to power off-takers. Concurrent plans are also being made towards investment in an industrial park. We are confident that this will help boost the economy of our host communities, through the creation of job opportunities and strategic infrastructural developments. These investments are all geared towards a sustainable future for Egbin Power Plc, the host communities and the Nigerian economy at large.

x2

Planned increase in our generation capacity with the Egbin Phase 2 project



We intend to continue unit overhauls to ensure that we meet our existing power supply commitments to power off-takers.

Economic Overview

We recognise the impact our company has on the society, especially as power continues to be the pedestal for development in Nigeria. We impact the economy in terms of payments to government, payments to employees, payments to suppliers, amount of generated power and amount of available power.

Just like the previous reporting year, we experienced intermittent grid and gas constraints which affected our revenue for a significant part of 2018. However, we signed a Gas Supply and Aggregation Agreement (GSAA) on the 31st of October, 2018 with Chevron Nigeria Limited, which significantly improved our gas supply towards the end of 2018. This in turn increased our generation which improved our revenue. In 2018, the Nigerian Bulk Electricity Trading Plc (NBET), with the support of the Federal Government of Nigeria, continued the disbursement of the 701 Billion Naira Payment Assurance Scheme which guaranteed the payment of 80% of all GENCO invoices. This scheme improved our cashflow in 2018. Another aspect of the scheme is that it also guaranteed payment of 90% of gas invoices which was then deducted from the 80% paid for GENCO invoices. This helped to reduce gas invoice debts in 2018.

Notwithstanding the ongoing liquidity issues, we believe that our host communities have been of immense benefit to us. Therefore, we equally gave back through our Corporate Social Responsibility (CSR) initiatives in 2018. More particularly, we gave back through donations to schools and hospitals; as well as scholarships which were exclusively for indigenes of the host communities.

Deployment of Technology

Since the takeover of Egbin's business operations in 2013, the deployment of technology has been pivotal to our growth. It has reduced costs, brought in efficiency, transparency, and it has also ensured the sustainability of a lot of the things that we do. Essentially, we see technology as a tool which makes things better. In 2016, the company introduced the Computerized Maintenance Management



The deployment of technology has been pivotal to our growth. It has reduced costs, brought in efficiency, transparency, and it has also ensured sustainability



Ultimately, our goal is to become the pacesetter when it comes to the deployment of latest technologies for efficient power generation.

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. Furthermore, in 2018, the use of the CMMS earlier deployed was optimized to ensure that all operations and maintenance activities were adequately tracked and midwifed to completion but more importantly to ensure that data in quantitative terms could be generated to enhance the quality of maintenance decisions taken in line with the proactive maintenance philosophy adopted by the company. Our focus is to continue to invest in the most advanced project delivery tools which will be integrated into our business operations. Ultimately, our goal is to become the pacesetter when it comes to the deployment of latest technologies for efficient power generation.

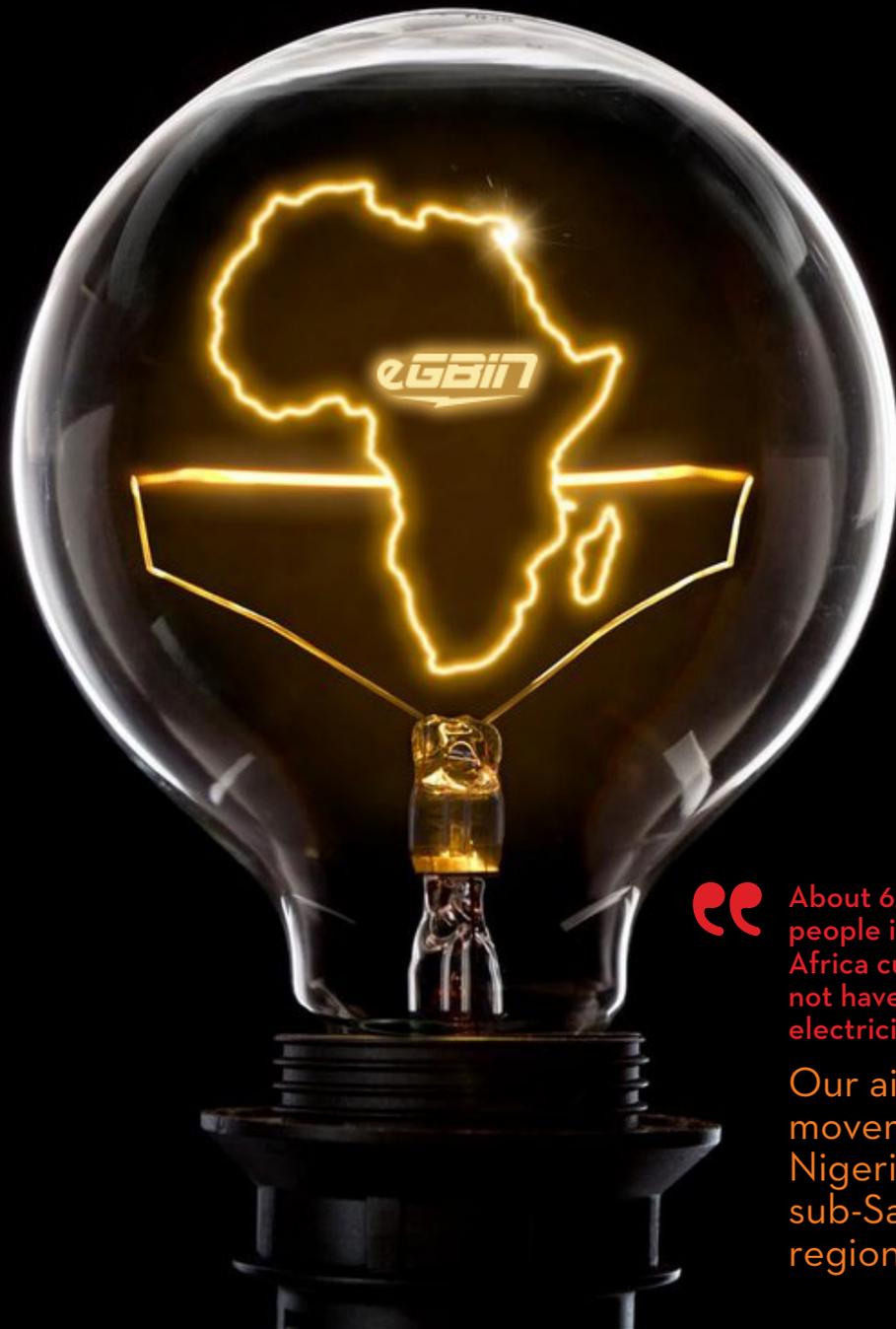
Outlook to the Future

Our future aim is to lead the movement to 'Light up Nigeria' and the wider sub-Saharan African region. In order to achieve this, we are willing and prepared to work with all sector stakeholders in developing and implementing short-term and long-term solutions to the issues plaguing the power sector. Also, as a responsible organization, we remain committed to our plans to deliver sustainable energy to the grid. We intend to achieve this by improving our operational efficiency. We also intend to secure new and bankable off-takers that will positively impact our revenue. As mentioned in the past, we are in discussions with the Lagos State Government with respect to power supply from Egbin Power Plant under the "Light-UP Lagos" project. We are also aggressively pursuing different renewable energy solutions that will actively and positively contribute to the reduction of carbon emission which affects the climate.

Conclusion

It is estimated that about 650 million people in Sub-Saharan Africa currently do not have access to electricity. At Egbin Power Plc, we believe that access to energy is critical to accelerating sustainable development, especially in developing economies such as Nigeria. As the largest power plant in Sub-Saharan Africa, we are passionate about bringing energy to life; and are confident that our present and future operations would ultimately facilitate access to reliable, clean and affordable energy for Africa. Regardless of the obvious challenges currently being experienced sector-wide, Egbin Power Plc is committed to the delivery of stable electricity in order to light up Nigeria and Africa as a whole. We will continue to take all necessary steps to achieve business and operational sustainability. We will also continue to partner with the government and other relevant stakeholders in order to improve the state of the power sector.

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



About 650 million people in Sub-Saharan Africa currently do not have access to electricity.

Our aim is to lead the movement to 'Light up Nigeria' and the wider sub-Saharan African region

Chief Executive's Message



We have separated ourselves from the crowd, setting a new trend in Nigeria's electricity business

Paul Harriman
Ag. Chief Executive Officer
Egbin Power PLC.



The year 2018 is significant to us for a number of reasons. It marks five years since the privatization of power assets in Nigeria and presents for us, an opportunity to reflect on our achievements as well as the steps taken towards transformation and improvement. Egbin Power Plc., being the largest indigenous power generating company in sub-Saharan Africa has remained the largest contributor of electricity to the Grid with a gross generation of 4,331,092.00 MWH in 2018.

In the last 5 years, we have had to transform our culture and learnt to be resourceful not just to survive in the industry, but to improve the narrative of power generation in the country. We once more demonstrated our leadership role in 2018, by redefining the structure of gas-to-power agreements in Nigeria. We have separated ourselves from the crowd, setting a new trend in Nigeria's electricity business, with a one-of-a-kind agreement tailored to enable both the gas producer and generation company to survive despite the current imbalance in the power value chain.

With the ambition to remain as the leading power generation company and further show our commitment to improve the total available electricity in Nigeria, we acquired a brand new 270KVA generator transformer for Steam Turbine (ST1), accelerated the overhaul of Steam Turbine (ST3) and commenced the commercialisation of EDMI (Digital Energy Meters).

2018 for Egbin Power Plc. was a year to set the pace with improved plant availability, reliability and increased readiness to serve the Nigerian populace whilst still maintaining Safety as our Nos.1 core value; we commenced the implementation of the ISO 45001:2018 certification while the ISO 14001:2015 documentation was fully implemented.

Strategic Priorities

OUR CORE STRATEGIC PRIORITIES



Health &
Safety



Environmental
Compliance



Regulatory
Compliance,



Employees and
their Welfare,



Sustainable Quality
Power Generation.

The welfare of our employees remained our number one priority in 2018. For Health, Safety and Environmental compliance as well as Regulatory compliance, we surpassed our targeted goals for 2018, as we were in full compliance without any recorded sanctions. Such an achievement indicates that the right steps were taken to ensure the sustainability and success of the Company. We also started developing our occupational safety, health and environmental management systems to meet ISO 45001:2018 and ISO14001:2015 standards respectively. For Power Generation, our targets are based upon Availability, Capacity and Efficiency. Current Availability of our power plant is estimated at 85% of the installed 1320MW capacity; however, we will continue to strive to achieve more.

Our major challenges in 2018 included the liquidity crisis in the industry, ongoing gas constraints and transmission limitations to evacuate generated power. These challenges affected the efficiency of the plant, and when there is less efficiency/ availability or capacity, it will affect the successful attainment of return on investment.

Our strategic priority is to address the aforementioned issues both independently and collectively with the relevant stakeholders. These issues (illiquidity, gas constraint & evacuation) do not only affect our business but are also highly critical to the successful running of any power generation business like Egbin Power. Our strategic aim is to improve on these issues in order to achieve sustainability.

Part of our long-term goals is to double the capacity of Egbin through our proposed Egbin Phase 2 project with an

estimated capacity of up to 1,800MW. In addition, we intend to continue unit overhauls to ensure that we meet our existing power supply commitments to power off-takers. Aside from Egbin Phase 2, concurrent plans are being made towards investment in an industrial park. It is envisaged that this will help boost the economy of our host and neighboring communities, through job creation opportunities and strategic infrastructural developments. In meeting the Company's goals, we will ensure that all internationally prescribed standards are adhered to in order to secure the future of Egbin. Human Capital Empowerment is required in order to enable us actualize the much-needed technological advancement. As such, there will be a continuing and evolving investment in human capital at Egbin Power Plc.

For Health, Safety and Environmental compliance as well as Regulatory compliance, we surpassed our targeted goals for 2018,

85%

Achieved availability of our plant installed capacity in 2018



Key Events, achievements and failures during 2018 calendar

In 2018, just like the previous reporting year, we experienced grid and gas constraints which affected our revenue in 2018. Nevertheless, we continued to strive towards achieving optimal operations and maintained our investments in human capital and infrastructure throughout the year. A combination of regulations, costly offshore loans, non-cost reflective tariff regime, high gas prices, poor collection efficiency and a number of other challenges have greatly discouraged the debt markets from injecting further capital power projects. Notwithstanding the foregoing, we were able to maintain availability in capacity despite all the operational and financial challenges. In 2017, the Nigerian Bulk Electricity Trading Plc (NBET), with the support of the Federal Government of Nigeria, introduced a 701 Billion Naira Payment Assurance Scheme which guarantees the payment of 80% of all GENCO invoices for a period of time. Even though it only covers a percentage of invoices, the scheme improved our cashflow in 2018. Another aspect of the scheme was that it also guaranteed payment of 90% of gas invoices which is then deducted from the 80% paid for GENCO invoices. This helped to reduce gas invoice debts in 2018.

In October, 2018, we demonstrated our Leadership role by redefining the structure of gas-to-power agreements in Nigeria. A Gas Sale and Aggregation Agreement dated 27th May, 2011 were executed by Chevron Nigeria Limited (CNL), Egbin Power Plc (Egbin) and the Gas Aggregation Company Nigeria Limited ("the GSAA"). However, the GSAA had not been made effective until October 31st 2018. An interim arrangement has now been put in place through a Side Letter Agreement that will address temporary gaps in payment as well as transmission and technical constraints. This is a one-of-a-kind agreement tailored to enable both CNL and Egbin survive despite the current economic imbalance in the power value chain.

Even with the challenges faced in 2018, we remain optimistic that our financial, transmission and gas supply challenges will significantly improve. We believe that these challenges can be overcome through synergies between the industry stakeholders. To enable us achieve this, we constantly engage all relevant stakeholders such as Transmission Company of Nigeria, Nigerian Bulk Electricity Trading Plc, Gas Suppliers and Distribution Companies, on a regular basis, as we need to effectively collaborate in achieving our overall goals and set objectives.

“ In October, 2018, we demonstrated our Leadership role by redefining the structure of gas-to-power agreements in Nigeria.

Our commitment towards building a sustainable organization

In 2018 our drive towards building and enhancing our highly skilled work force involved the employment and training of young technicians on a rotational basis across departments. Where skilled gaps were identified, we ensured staff embarked on relevant and required training in order to fill the gaps. We also engaged new expertise for improved and continued productivity. The knowledge sharing initiative which commenced in 2017 was continued in 2018, where the older and more experienced engineers conducted workshops in order to pass on the knowledge and skills acquired over the years to the younger engineers.

In addition to the above, we intend to continue major overhauls to ensure that we keep power supply commitments under our Power Purchase Agreements.

“ The knowledge sharing initiative which commenced in 2017 was continued in 2018, where the older and more experienced engineers conducted workshops in order to pass on the knowledge and skills acquired over the years to the younger engineers.



Our General Management and Organizational Approach

Financial Capacity



We have entered into various partnerships with different financial institutions in the country towards ensuring business sustainability. These partnerships have helped us secure financial instruments to ensure that the required payment security and/or financing is available to enable the company purchase gas, generate and evacuate the needed power to the National Grid.

Environmental Consciousness



Our operations continued to be environmentally friendly, as the company put in several measures to ensure sustainable development. We are in the process of developing our environmental management systems to meet ISO14001:2015 standards.

Corporate Social Responsibility (CSR)



Each year, we provide up to 20 fully paid scholarships to exceptionally brilliant students and local area indigenes thereby enabling them attend our schools. All through 2018, we continued to support our host and neighboring communities. We provided free and uninterrupted electricity power, drugs/medicine and treatment to local hospitals. We also provided boreholes, housing, infrastructure improvement and scholarships.

18 Full scholarships to brilliant students & local indigenes

Gender Diversity



We continued the implementation of policies and initiatives which demonstrates that we are gender neutral, in the sense that there is no form of gender-based bias in any of our organizational decisions. As a reputable organization, we are more concerned about the value a person brings rather than gender. We have doubled the number of female staff working at Egbin in the last few years with female employees in technical, engineering and administrative departments doing just as well as their male counterparts. It is also important to note that many strategic positions in Egbin Power Plc are occupied by females.

x2

Increase in our female workforce



Meeting Power Needs Through Innovation

2018 SUMMARY



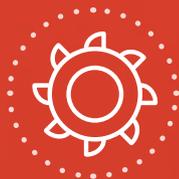
Assets
N402
Billion



Revenue
N91.7
Billion



Pre-tax Profit
N3.66
Billion



Average Plant
Availability Factor
67.6%



Total Power Generated
N4,331,091
MWH

Value Added
N19.5
Billion



Staff Strength
375



Community Investment
up **32%**
Billion



Recycled water
667,037
Metric Tons



Scholarship
Beneficiaries
18



Environment Incidents
/ Oil Spill
0



Profile

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YOU ARE
THE KEY
TO SAFETY

West Africa's largest power generation station, Egbin Thermal Power Plant, was built by the Federal Government of Nigeria. The plant was commissioned in 1985, and it is located at the heart of a small town called Egbin in Ikorodu Local Government Area of Lagos State, Nigeria.

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

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

Over the years, Egbin has continued to maintain its operation of 6 units of 220 MW Hitachi Gas Fired Steam Turbines, a GE gas turbine and an emergency diesel generator with installed capacities of 1320MW, 24MW and 1.5MW respectively. In line with our resolve to promote the United Nations Sustainable Development Goals, we remain committed to reducing the impact of our business activities on the host communities, as well as the promotion of inclusive growth and development in Nigeria.

We operate a closed cycle thermal system where we source for water 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 groundwater 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 a 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 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 the 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.

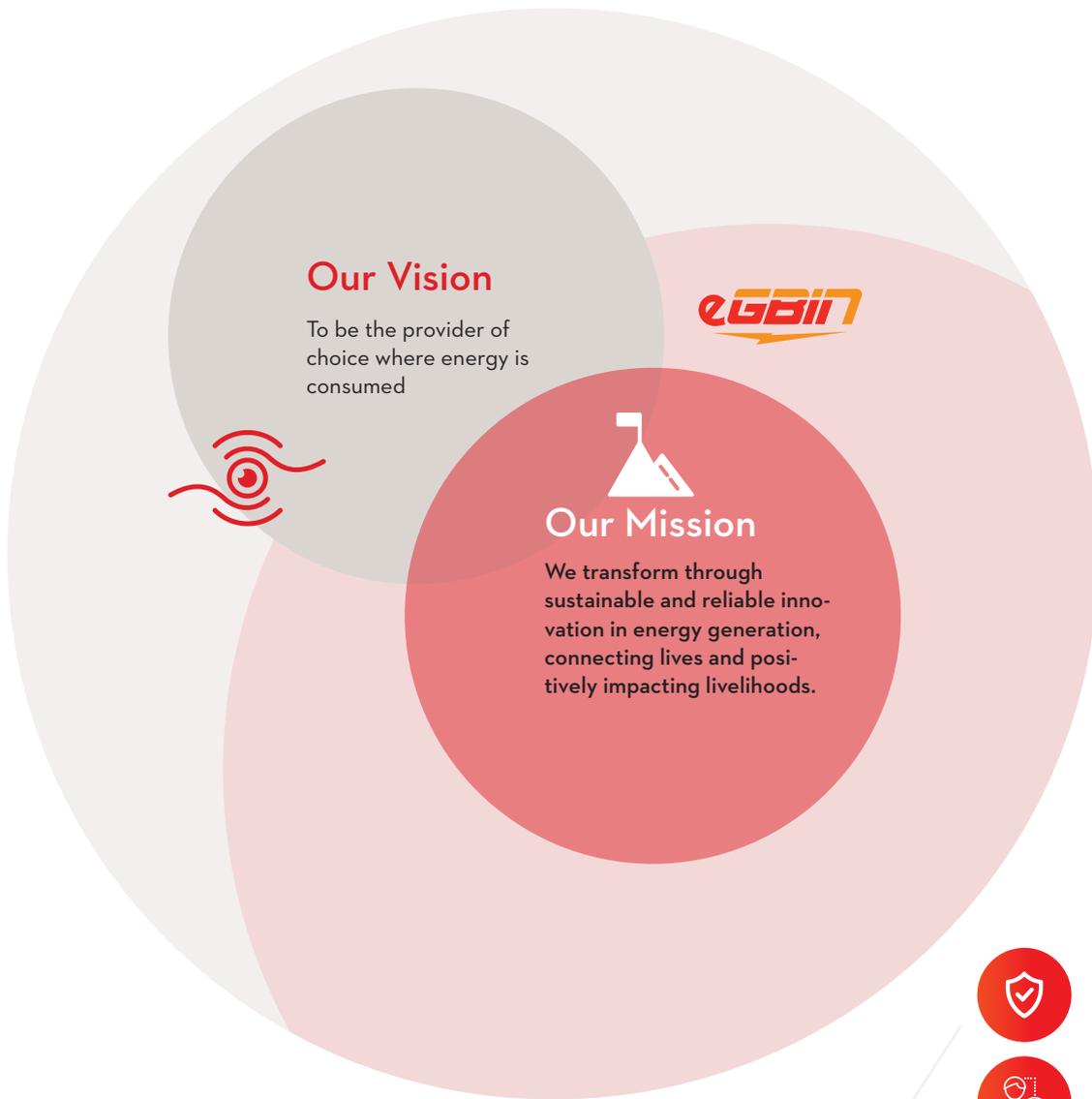


20%
Power Egbin supplies to the national grid



6
Total gas fired steam turbine





Our commitment towards building a sustainable organization

Egbin Power Plc is guided by values and principles which are not only required to engage better with the economy, society, and environment but are also needed to improve the dynamics of the power industry in Nigeria, where operations are in line with international best practice. Our values and principles are designed to ensure that the company achieves sustainable long-term success. We harness our core values from the acronym S.P.I.C.E.S, which distinguishes us and guides our activities. They are as follows:

SPICES

-  Safety
-  Professionalism
-  Integrity & Discipline
-  Commitment to Stakeholders
-  Environmental Consciousness
-  Sustainability

Egbin Corporate Governance

The Institute of Directors, Nigeria defines corporate governance as the structure through which an organization is directed, controlled and held accountable. It establishes a framework of rights, responsibilities, procedures, and relationships amongst the various stakeholders of an organization, 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 organizations have put in place policies, processes, and procedures which will guarantee fairness, accountability, responsibility, transparency, and efficient risk management.

Following 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 management team and all employees, that the success of our company depends mainly 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 regulated power industry, the need to be transparent in our business operations to better engage our external stakeholders cannot be over-emphasized. The need for increased transparency 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.

Board of Directors

As an economically, environmentally and socially responsible company ensuring compliance with the Board Charter, Egbin board of directors' responsibilities involve putting in place effective and efficient corporate governance, risk management, performance accountability, and MEMART adherence.

In the preceding reporting year, sound governance systems were formulated, instituted and reported in the 2015 sustainability report. In strengthening the corporate governance structure to enshrine our core value system, two highly experienced legal and compliance professionals were recruited to bolster board's drive to promote and sustain our business principles, standards and norms stipulated in the company's corporate 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, it is also deeply involved in the implementation of the instituted framework. The Board drives the implementation of the framework through its audit, risk, and governance committee; finance, investment and general-purpose committee; and technical and operations committees.



In strengthening the corporate governance structure to enshrine our core value system, two highly experienced legal and compliance professionals were recruited to bolster board's drive to promote and sustain our business principles, standards and norms stipulated in the company's corporate governance guidelines, code of ethics, business principles and human resource policy.

Business Framework



Policies



Process



Systems

At the heart of Egbin's power generation business setup are our customers - Nigerian Bulk Electricity Trading Plc and our bilateral customers. We have resolved to ensure that all our activities and business operations are focused on satisfying the consumers of the power that we generate. Despite myriad challenges in the electricity market, ranging from gas constraints to limited power transmission capacity of the national grid; illiquidity challenges; 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 ensuring the sustainability of our power generation business, we have mapped out our organizational goals and strategies and set out implementation plans through policies, processes, and systems to enable the company to succeed in the current challenging business environment. Our approach to addressing 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 so 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 to improve their ability to evacuate the power been generated. This assistance may be in the 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

continues to play its part as a power generation company (GENCO) ensuring industry improvements, while 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 using our core values (SPICES), which includes sustainability, has enabled Egbin to adopt the 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 station 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 the Nigerian Bulk Electricity Trading Company, as well as our vendors and suppliers to create a sustainable supply chain management system.



Executive Management

The corporate goals and objectives which are components of the broad organizational strategy laid out by the board of directors are championed by a dynamic team of professionals who are committed to implementing the corporate strategy as well as manage the technical and business support staff to effectively and efficiently utilize financial, material and human resources. This team includes:



Chief Executive Officer

Chief Financial Officer

Human Resource Manager

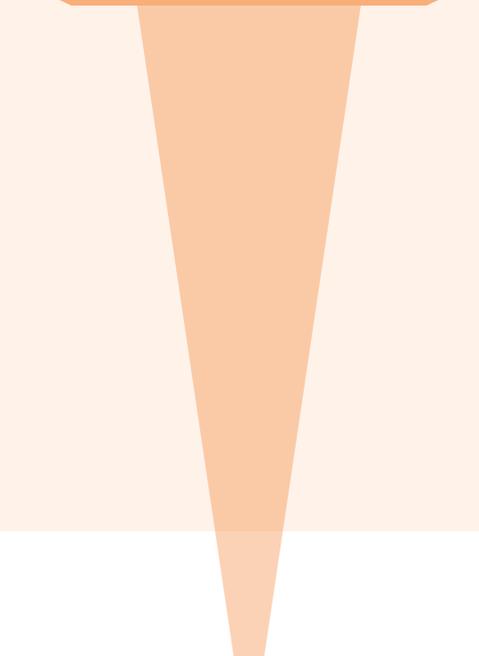
Operations Manager

Maintenance Manager

Procurement Manager

Legal Adviser

Chief Security Officer





Plant Operations & Maintenance

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Our goal is to remain the preferred energy supplier of choice. Therefore, it is a continuous aspiration of the company to ensure that its Operations and Maintenance (O&M) activities are constantly evolving to match up with standards attainable with contemporaries elsewhere in the world. To help facilitate this, in the previous reporting year, the company shored up its Maintenance Planning Unit (MPU) with the inclusion of Three (3) experienced technical personnel. In 2017, the MPU instituted the Maintenance Planning Guidelines for O&M working groups to increase synergy and enhance seamless execution of maintenance activities in tandem with global O&M practices while meeting agreed project timelines. The incorporation of these Maintenance Planning Guidelines has revolutionised the way maintenance activities are being carried out. Maintenance programs (either planned or unplanned) are drawn up by the MPU after due consultation with stakeholder maintenance departments. This new approach to carrying out maintenance programs has created a system where proper monitoring and tracking of the project all the way to a successful conclusion is achievable, in line with pre-determined objectives. The itemized nature of the maintenance programs also enables better planning and execution of the maintenance activity by the frontline maintenance crew. To maximize the impact of the maintenance planning guidelines, in 2018, the use of the Computerized Maintenance Management System (CMMS) earlier deployed was optimized to ensure that all operations and maintenance activities were adequately tracked and midwived to completion but more importantly to ensure that data in quantitative terms could be generated to enhance the quality of maintenance decisions taken in line with the proactive maintenance philosophy adopted by the company. The Maintenance Planning Unit continued in its quest to incorporate the logistics component of O&M process chain to ensure critical allied matters like determining re-order levels and stock requirements are factored into the maintenance management and planning process. A particularly important achievement was the reduction in the number of breakdown maintenance in 2018 by 7.2% when compared with 2017. As part of the quest to expand the CMMS to incorporate a wider scope in terms of assets covered, a second phase is planned to take effect in 2019.

7.2%

Reduction in breakdown maintenance compared to 2017



9 INDUSTRIAL INNOVATION AND INFRASTRUCTURE



The incorporation of our Maintenance Planning Guidelines has revolutionised the way maintenance activities are being carried out.





Consolidating Technical Competence: In-House Maintenance Successes

The company has continued to invest massively and leverage upon the in-house capacity of its technical team. As previously reported, in 2016, there was a realignment of the company's technical partnership with international power giant, Korea Electric Power Corporation (KEPCO) in the face of huge economic challenges faced by the power industry.

The immediate consequence of this strategic decision, was that maintenance projects and repair works hitherto supervised by KEPCO were now to be handled by the in-house operations and maintenance departments. Since then, tremendous opportunities have been created for the in-house maintenance groups to build technical capacity.

In the 2018 reporting year, the company continued to leverage upon available in-house technical expertise and resources adequately to ensure the plant and its auxiliary equipment were operational in line with scheduled maintenance programmes. The company continued to reap the benefits of its massive investment in the training of technicians on Tungsten Inert Gas welding, a specialist knowledge requirement for boiler tube maintenance—a common technical challenge in the past.

Also, in the 2018 reporting year, the company embarked upon a strategic recruitment of young O&M technicians with a view to ensure that there was a succession plan in place to facilitate continuous knowledge transfer and the entrenchment of these critical skills within the company.



In 2018, we embarked upon a strategic recruitment of young O&M technicians with a view to ensure that there was a succession plan in place

As with previous years, in 2018, the in-house O&M team continued to achieve tremendous successes. Some of them include:

Modification of ST-1 Boiler Feed Pumps (BFP) Dampers.

The BFP dampers are very critical to the operation of the boilers. They are utilized to vary the speed of the pump so as to regulate the discharge flow. As a result of the age and technological generation of the dampers, the exact spares for their positioners could not be procured as they were unavailable. Therefore, the Instrumentation and Control group undertook the task of modifying the configuration and arrangement of the linkages of the dampers so that they could work with the available positioners which resulted in massive cost savings.

Also, during the restoration of the above-mentioned unit (ST-01), the I&C section in conjunction with Turbine maintenance section had a major breakthrough in rectifying the issues which had plagued the Turning gear system of the unit since it was overhauled in 2015. The turning gear system is very critical to the proper operation of the turbine. It is used to shaft turn the turbine rotor so as to prevent it from hogging or sagging. The turning gear system had failed to operate automatically since the unit was overhauled in 2015. There had been an error during the overhaul that prevented the turbine from sensing "zero speed" which was a critical condition required for the turning gears operation. As a result of this, the system had to be operated manually. The two sections involved worked in synergy to rectify this issue thereby saving the organization the cost of carrying out a major maintenance on the system. It also ensured that the turbine is better protected and in turn, ensures sustainability.

Furthermore, the middle burner level wind-box dampers on ST-06 were repaired and modified. The wind-box dampers are used to regulate the amount of air that is utilized for combustion on the particular burner level where it is located. The internal components of the damper positioner were replaced so as to ensure its proper automatic operation. This further ensured that the combustion control system could operate properly on automatic mode thereby ensuring proper stoichiometric combustion as well as an improvement in efficiency.

Other Successes

Replacement and Repair of defective Boiler Tubes:

- ST-06 Superheater tube ruptures replacement and repair.
- ST-06 Water walls tube leakages replacement and repair.
- ST-05 Water walls tube leakage replacement and repair.
- ST-06 Tube leakage replacement and repair.
- ST-05 Tube leakages replacement and repair.
- ST-06 Tube ruptured (Slope tube) replacement and repair



Boiler Integrity Test on Units 6, 5, 3 and 1:

A comprehensive integrity test was carried out in order to determine the integrity and remaining half-life of the boiler plant.

Drum Safety Valves Replacement and application of heat treatment:

- ST-05 Safety Valve replacement 212 and 21
- ST-01 Safety Valve Replacement 212



Replacement
of ST-02
Electric Relief
Valve.

Replacement
of Acid Metering
Pump

Installation of
Well E Pump

Drilling of Well D
and Installation

Rehabilitation of
Clarifier A and B.

Other Noteworthy Achievements

Overhaul of
Steam Turbine
Control Valves
Nos. 1, 2, 3 & 4.

Installation of
repaired ST-1
transformer
by GTA.

Introduction of
Local Content
re-engineering
of a damaged
diaphragm.

High precision
machining
of 12th stage
blade and
shroud covers

A Renewed Commitment to Safety across O&M Departments

In the 2018 reporting year, at the heart of all operations and maintenance activities carried out within the company was an uncompromising stand on safety. This involved not only executing job tasks successfully but doing so in a manner that was safe for the employees, ensured longevity of the plant equipment and that had minimal negative impact on the environment. For us at Egbin, a commitment to safety is not just a moral obligation to employees or a mantra that we mouth, but is a core component of our corporate culture designed to ensure that there is a preservation of the conditions necessary for the sustainability of our business.

As with the 2017 reporting year, the company walked its talk with a continued company-wide drive in 2018 to ensure that safety remained a core emphasis in every endeavour carried out across the operations and maintenance working groups within the company. As earlier mentioned, we commenced the implementation of the ISO 45001:2018 certification while the ISO 14001:2015 documentation was fully implemented. Just like the previous reporting year, in 2018 there was an increased enforcement of safety regulations/practices such as testing of confined spaces to ensure conduciveness of environment and use of appropriate permits and Personal Protective Equipment (PPE).

In order to deepen our safety culture, we facilitated safety awareness talks and tool box meetings covering a broad range of topics including job risk assessments carried out at the morning meetings. The major content of the safety talks relates to the job(s) at hand; useful information on other non-plant related matters such as reminders on safety at home, in the community, and environmentally safe practices, all with an aim of ensuring the safety consciousness

As part of our drive to continue our emphasis on safety, we commenced the implementation of the ISO 45001:2018 certification while the ISO 14001:2015 documentation was fully implemented.



Our meetings emphasizes on job safety beyond the use of PPEs. Hazard and accident prevention is not limited to the use of PPE alone, but is highly influenced by conscious efforts to engage in safe practices.



of the employees. A typical approach used to ensure that all employees participate is a random selection of employees that give safety talks in an atmosphere where other employees can contribute. In order to get them acquainted with the system, trainees and new hires are also incorporated in the system to give safety talks from time to time. Safety talks serve as a reminder of all the hazards of a particular activity and known means of prevention, such as precautionary actions on site, hazardous materials handling and use of PPE.



Another important highlight of these meetings is the emphasis on job safety beyond the use of PPEs. Hazard and accident prevention is not limited to the use of PPE alone, but is highly influenced by conscious efforts to engage in safe practices. Without this important activity, carelessness or unawareness could lead to incidents which, in an environment of this sort, could range from being mildly dangerous, to causing large scale harm. While this practice of holding safety-toolbox talks at morning meetings is not new, it is still on the path to improvement, especially for major jobs.

In addition, another important aspect of ensuring safety is carrying out proper housekeeping. Housekeeping is a health and safety concern, as untidy work environment and improperly placed materials could cause harm to health, accidents, harm to equipment and harm to the environment. For instance, an oil spill on the floor in the process of topping up the level in an equipment could pose a tripping hazard. 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 hiding 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 as much order to possible to reduce risk. Areas where housekeeping is carried out include the stores for tools and materials, equipment and surrounding areas, aisles and stairs in the zone of boiler equipment. The future target is to improve 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 plant environment is maintained.

Other New Developments

Steam Turbine 1 (ST-1) gets a brand new 270MVA generator transformer installed

The Company received delivery of a brand new 270MVA generator transformer for ST-1. It is noteworthy to recall that ST-1 had previously been out of grid duty due to a damaged generator transformer. Installation was completed and ST-1 has now returned to grid duty.

Steam Turbine 3 (ST-3) resumes grid duty

ST-3 was shut down in June 2017 as a result of vibrations noticed on the steam turbine. Together with a combined team of in-house engineers and external contractors, restoration work commenced on it in December, 2017. It was successfully completed and restored to grid duty in 2018.

Sustaining Operational Performance

The input fluid used to drive the turbine is water which has undergone the demineralization process and that has been heated to superheated steam with energy. It goes through a closed cycle, changing thermodynamic phase from steam to condensate to feed water. Therefore, 100% of the working fluid is recycled back into the system for continuous power generation; although, due to inefficiencies in the system and other losses, there is a negligible deviation from 100% that cannot be accounted for. For steam power generation, Natural Gas is used in the boilers to generate the heat required in the furnace to heat up demineralized water and produce the superheated steam which is used to drive the turbines for generation.



At Egbin, for steam generation, the boiler can use two sources of fuel for combustion: Natural Gas and High Pour Fuel Oil. For Black start, the Emergency Diesel uses Diesel and the Gas turbine generator uses diesel for start-up and Natural Gas during normal operation. Diesel is used in the black start equipment to power the unit auxiliaries during loss of national grid supply and also for ancillary services. It is important to recall that in the 2017 reporting year, as part of efforts to ensure continued serviceability of the alternate oil firing option of the generating units, High Pour Fuel Oil (HPFO) was successfully used as input fuel to run one of the generating units. Given the economic realities of using HPFO as input fuel as benchmarked against natural gas, none of the generating units were run on HPFO in the 2018 reporting year. A percentage of energy output is usually consumed by the auxiliary equipment such as pump motors etc. in order to keep a unit operating or to conserve it during shut down.

As a close cycle system, the steam used to power the turbines is recycled back to water by means of condenser cooling. The steam is cooled with water pumped from the lagoon through a tube & shell cooling heat exchanger to absorb the latent heat of vaporization of turbine exhausted steam and condense the steam to condensate.

To help secure fuel supply sustainability, the company continued to lead negotiations and successfully reached agreements with its gas suppliers and the NGC to ensure that it got sufficient gas to run its facility profitably, despite the current imbalance in the power value chain.



~100%

Working fluid recycled back into the system

Improved Asset Management

As an organization, there is a continuous alignment of our business processes to ensure that we continue in sync with our vision to be the energy provider of choice wherever energy is consumed. For power generation, our targets are based upon availability, capacity and efficiency.

In 2018, our major challenges included the on-going gas constraints and transmission limitations to evacuate generated power even when gas was available. Despite these challenges, the overall efficiency in 2018 based on the output/input method of calculation was 31.46% as compared to the 29.79% in 2017. In the fourth quarter of 2018, as an energy management measure, we commenced the rollout of EDMI (Digital Energy Meters) at strategic points of use as an energy accounting measure to drive lower energy intensity and lower energy consumption. The impact of the initiative will be assessed in the year 2019. Owing to the tough economic realities in the industry, the planned overhauls were paused for the year. They are, however, billed to resume in 2019.

As an organisation, we continue to have an unflinching belief that our people are at the heart of powering our success. To enhance the culture of productivity, the use of benchmarks, Key Performance Indicators and other quantitative metrics to drive performance development and improvement was continued in the 2018 reporting year. We continue to strive to ensure that there is the creation of an environment where staff productivity and contribution to the bottom line is not only encouraged but rewarded. In the 2018 reporting year, there was a staff recognition awards ceremony where deserving staff were recognized and commended.



31.46%

Overall efficiency based on input/output method of calculation

An increase from 29.79% in 2017, despite the gas constraints in 2018

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 to guarantee the sustainability of our business. 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. Building upon our enviable performance in 2016, we achieved again in the 2017 reporting year, the remarkable safety performance of zero fatality rate, extremely low emissions which were well within internationally acceptable limits; increased safety awareness and training, increased investment in employee healthcare, etc.

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. We continued in our efforts to improve our energy performance because we leveraged on international best practices to identify energy saving opportunities that could be introduced to maintain and improve our energy management system, thus increasing our energy efficiency throughout the reporting year of 2018.

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. ”

Zero fatality recorded in 2018

Sustainable Development Goals

As a company, we have adopted the 17 Sustainable Development Goals (SDG's) of the United Nations as essential tools for attaining sustainability. The United Nations Sustainable Development Goals Fund (SDG-F) in New York inaugurated the Private Sector Advisory Group (PSAG) made up of 13 private sector organizations from across the world in April 2015 to support the SDG-F in developing sustainable solutions to identified global problems. As mentioned in the past, the Sahara Group is a member of the SDG-F's advisory board and also one of the arrowheads of the PSAG in Nigeria. As a subsidiary of Sahara Group and being a sustainability-driven organization, the project is critical to Egbin Power Plc. In the reporting year, we continued to promote the objectives of the PSAG through our various Personal and Corporate Social Responsibility initiatives.



Commitment to Compliance Obligations

Egbin Power Plc has continued to lead by example in the Nigerian Electricity Supply Industry. We pride ourselves in knowing that we do not fall short on obligations owed to external bodies/ organizations that govern our business activities. This enduring commitment is consistently demonstrated through the regular and early filing of our financial statements with Nigeria Electricity Regulatory Commission (NERC), as well as the prompt filing of both employee and employer contributions. 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. 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, we have developed a Corporate Compliance Manual, which will serve the purpose of driving the efficient implementation of our business operations based on laid down compliance procedures.



Economic Sustainability

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Business Sustainability

Egbin Power Plc.'s capital structure remained unchanged from 2017, with Sahara Group through a Special Purpose Vehicle (KEPCO Energy Resources Limited) owning 70% of shareholding, Bureau of Public Enterprises (BPE) with 24%, and Ministry of Finance Incorporated owning the remaining 6%.

Economic Performance

The reporting year 2018, being Nigeria's pre-election year, saw a lot of election activities, with a Gross Domestic Product (GDP) growth of 1.93%, although slower than the growth in population of 2.61%. The growth in Crude Oil prices from the budgeted benchmark of \$50.5/barrel in 2017, to an average of \$64.9 in 2018, the increase in oil prices, significantly reduced unrest in Niger Delta and the stability of Naira resulted in continuous positive GDP and highest growth of 2.38% in the fourth quarter of 2018.

Egbin Power Plc. signed a Gas Supply and Aggregation Agreement (GSAA) on the 31st of October, 2018 with Chevron Nigeria Limited, which was the first of its kinds in the industry tailored towards ensuring the gas supplier and Generation Company's survival in the industry value chain. The GSAA guarantees the delivery of 145,000 MMBtu of gas daily, however the grid evacuation constraints persisted, with Egbin only being able to generate an average of 495MW, an improvement on the 399MW generated in 2017.

The year recorded an increase in revenue of about 20% to settle around N91.7bn (\$264.31m) in 2018, an increase from the revenue figures of N76.7bn (\$236.62) recorded in 2017. The increase in earnings was due to an increase in generation as a result of more stable gas supply pursuant to the activation of the Chevron GSAA. The translation of Egbin's financials to reporting currency USD (\$) was based on NAFEX rate (Nigeria Autonomous Foreign Exchange rate at an average of N346.99/\$) in 2018 and 2017 an average of 324.34/\$.



495MW

Average generated electricity in 2018

An improvement from 399MW in 2017



N91.7 Billion

(\$264.31 Million)

Revenue in 2018,

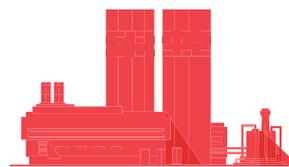
an increase of 20% from 2017



N3.66 Billion

Pre-tax profit in 2018,

an improvement in performance from the N9.53billion loss in 2017



N402 Billion

Total Assets

0.47% decrease from revised 2017 figures
after the IFRS 9 adjustments

N85.73 Billion

Cost of Sales

an increase of 9% from 2017,
due to increase in generation



An exchange gain (Net) of about N1.29bn arose from revaluation of our dollar denominated Asset/obligations for Operation and Maintenance (O&M) expenses and procurement of major spares and equipment using the NAFEX rate against N380 per dollar projected for 2018. Cost of sales also increased by 9% to close at about N85.73bn. The increase in cost of sales was mainly due to an increase in generation. There is an improvement in performance from a loss before tax of N9.53bn in 2017 to profit before tax of N3.66billion a break from 3years consecutive losses due increased generation & Naira stability. By the end of 2018, total assets had decreased to N402bn, 0.47% decrease from the revised figure recorded in 2017 after the International Financial Reporting Standard (IFRS 9) adjustment on receivables, due to huge receivables from Market Operator, Nigeria Bulk Electricity Trading Plc & Others. We are working closely with our partners to ensure this does not jeopardise our sustainability in the short-term.

Organisational Supply Chain

Procurement Practices

Egbin's Supply Chain Management is aligned with international standards of procurement which involves understanding the business needs at every point in time and managing supplier performance to boost the business performance of the organization. As a way to encourage technological advancement in the country, Egbin prioritizes local sourcing of services, spares and replacement parts. The company sources for services and spares internationally only when they are not readily available locally.



In our procurement sourcing, we identify competitive advantages through innovative solutions that will help us and our stakeholders achieve our strategic and sustainability objectives. Goods and/or services for the company's needs are procured in accordance with our procurement procedures with the following aims:

- Enhance fiscal discipline in the procurement of goods and services in Egbin by imbibing a planned budget/strategy-driven procurement processes/cycles across all the Company's Departments
- Transform the procurement function to an integrated system that ensures high-quality goods are procured based on confirmed needs and approved budgets
- Promote competition and reduce reliance on single source suppliers (where possible)
- Have in place Company-approved processes for procuring goods and services under various circumstances or situations that may arise from time to time
- Maintain an up-to-date database containing detailed information and business history of third-party suppliers, vendors and contractors
- Promote fairness, transparency and honesty in all the Company's dealings with third parties; as well as eliminate, among the Company's staff, any propensity to deliberately waste, steal, or collude with third parties to cheat or defraud the Company.



“As a way to encourage technological advancement in the country, Egbin prioritizes local sourcing of services, spares and replacement part

Our suppliers are assessed for some sustainability credentials for the goods or services they provide to us. These suppliers are assessed in line with our procurement principles. In the financial proposals, as it relates to economic sustainability, we request for Tax Compliance Certificate (TCC), Tax Identification Number (TIN), Value Added Tax collection, certificates of incorporation, amongst others. In terms of social sustainability, we only request for their staff insurance policy. We have commenced plans to introduce more stringent social parameters into our request such as agreements as it relates to human rights, good labour practices with evidence (child and forced labour), amongst others.

The total estimated monetary value of payments made to suppliers in the period of review is estimated to the tune of 70 billion Naira which is significantly higher than the 38 billion Naira recorded in 2017. This shows our commitment to the continuous enhancement of our plant.



**N70
Billion**

Paid to suppliers

a significant increase from the N38 billion paid in 2017

Supply Chain Management

In order for Egbin Power Plc to retain its position as the largest contributor of electricity to the grid, we have maintained an extensive supply chain management system ranging from producers/manufacturers, transporters suppliers to consumers. As an organization, we 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 the following groups:

Brokers

In a bid to ensure that the value created at every level of our business operations is also sustained, we ensure that all our generating assets are covered under comprehensive insurance policies through our broker/agent management system, thereby ensuring that are not only our plants insured against risk, but also our people and all other forms of combined risks that could arise from our operations and to our people are fully assessed and covered.

Wholesalers

Chevron and the Nigerian Gas Company Ltd (NGC) are our major wholesalers in terms of gas supply used as feedstock to power the turbines of our plant. Even though we experienced gas constraints for most parts of 2018, the situation changed as from the 31st of October, 2018, as the activated GSAA with Chevron improved gas supply and ensured stability of supply to our plant.

As part of measures to ensure that gas is readily available at all times, our discussions with other gas suppliers are already at the advanced stages for the execution of additional GSAA's that will guarantee more gas supply to the plant. With the federal government's gas to power arrangement under which 90% of gas invoices of the supplier is guaranteed through a payment assurance facility.

Offtakers

● 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 the vesting contracts it enters into with the Discos. NBET being the primary customer of Egbin Power Plc, plays a vital role in the success of the company. In 2017, NBET with the support of the FGN has guaranteed the payment of 80% of all Genco invoices through 701Bn Payment assurance guarantee scheme. This continued in 2018 and helped improve the liquidity of the power industry, even though it only covered a percentage of current invoices.

● Bilateral Offtakers

Egbin currently has a bilateral contract with Ikeja Electric (IE), where energy generated by our rehabilitated Unit 6 is supplied to the feeders designated by IE, as approved by NERC. There is also an ongoing plan to sell power from our Unit 6 to offtakers under the Eligible Customer's scheme in 2019. In addition, there are plans to provide 450MW for the Light Up Lagos project through a bilateral contract, and it envisaged that this would commence fairly soon.

Manufacturers

The power sector is a capital-intensive sector with ground-breaking technology being introduced daily to meet the ever-growing demands of the environment which we operate. In a bid to retain our bid to remain "Provider of choice wherever energy is consumed" we have partnered and are continually looking at

Transmission Provider

Power generated by Egbin 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 aspect of the modern business environment. Egbin Power Plc is not lagging behind, as the company has engaged and retained the services of some of the most reputable consultants locally and internationally.

To ensure that the integrity of our financial statements is maintained anywhere they are presented, Deloitte & Touché, one of the big four auditing firms was retained as the company Auditor for year 2018. Also, to ensure that the company is continually compliant with the operational tax regulations as part of the activities to develop local content participation, we have retained the services of a leading Tax consultant Pedabo Associates during the reporting year, to manage the company's regulatory risk and ensure compliance with all tax filings has been completed. Pedabo Associates in conjunction with Egbin's seasoned team has successfully secured the approval of 3 years' pioneer status for the company. The process for the additional two-year extension is currently ongoing.

partnership that we deliver on our vision. As such we have partnered with vendors such as KEPCO, ORBIS and KPS to help manufacture various capital items over the period.

The latest of these partnerships is the manufacture and installation of a 270MVA generation transformer for our Steam Turbine 1 in 2018.

Our Stakeholders

The management of Egbin Power Plc. understands the need for stakeholders' engagement and ensure accountability for all activities carried out by the company, hence there were three Board Meetings and an Annual General Meeting during the reporting year.

The Board Meetings that held in 2018 featured some salient issues ranging from the liquidity constraints due to huge receivables from NBET; Egbin expansion project; staff welfare; overhaul of the plant; replacement of Steam Turbine 1 Transformer and security concerns as a result of land encroachment and progress of perimeter fencing project; direct sale of power to willing buyers and updates on possible power sales to international customers.

In our daily operations as an organization, we interact with various groups of individuals and organizations. We have grouped our stakeholders into multiple categories based on the type of relationship with the organization. Some stakeholders placed into categories are highlighted herein.

Our esteemed staff and local communities are a significant part of our stakeholders that have also helped to boost our operating activities through their support and dedication.

Shareholders



Korea Electric Power Corporation (KEPCO)



Bureau of Public Enterprises



Ministry of Finance Incorporated

Regulators



Nigerian Electricity Regulatory Commission (NERC)



Bureau of Public Enterprises (BPE)



Financial Reporting Council (FRC)



Federal Inland Revenue Services (FIRS)



Lagos State Inland Revenue Services (LIRS)

Partners



Korea Electric Power Corporation (KEPCO)

ORBIS



KPS

Marubeni

Marubeni Corporation

Suppliers



Nigeria Gas Company



Chevron Nigeria Limited



Nigeria Petroleum Development Company (NPDC)



Pan Ocean Oil Corporation Nigeria



Drury Limited



BRIGHTEST HOPE GROUP
Brightest Hope Company Limited

Rohluck Nigeria Limited



Hygeia HMO Limited

Express Cleaners

Express Cleaners

Prayerighn Global Services Limited

Richard Obada & sons



KEPCO Korea



Prime & Hills Energy

Polyfirm Nigeria Limited

Denee Global Nigeria Ltd

Bara Energy Limited

African Hydro Agric Chemicals Limited

Denotat Engineering Service Ltd



Halogen Security Company Ltd



KPS

ORBIS

Customers



Nigeria Bulk Electricity Trading Company Limited (NBET)



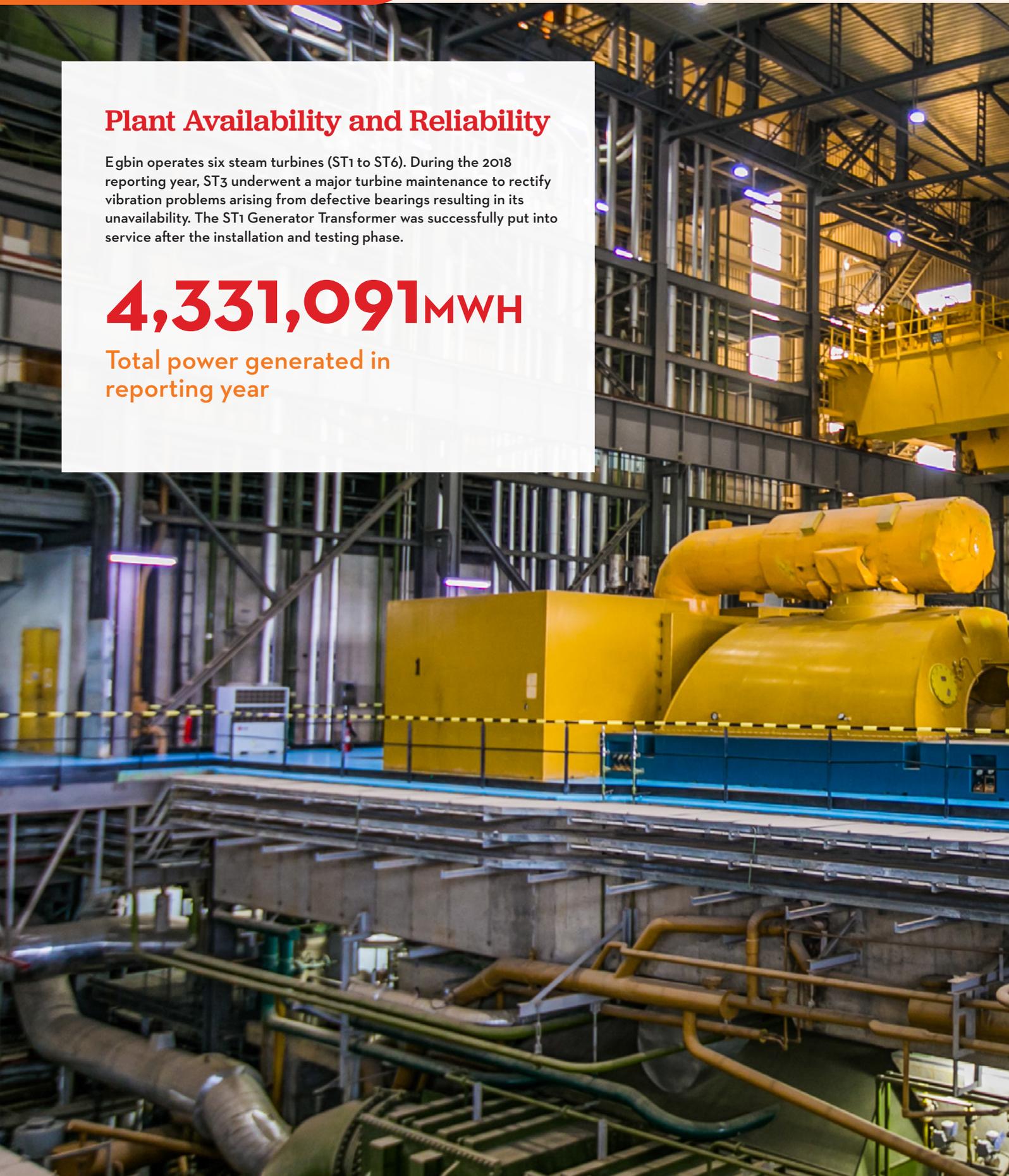
Ikeja Electric

Plant Availability and Reliability

Egbin operates six steam turbines (ST1 to ST6). During the 2018 reporting year, ST3 underwent a major turbine maintenance to rectify vibration problems arising from defective bearings resulting in its unavailability. The ST1 Generator Transformer was successfully put into service after the installation and testing phase.

4,331,091 MWH

Total power generated in reporting year



Availability Factor for 2018



60.2%



94.2%



0.0%

(The Unit was out for major Turbine maintenance due to a Turbine Vibration problem)



93.3%



81.9%



76.0%

67.6%

Average availability factor in 2018

representing a 113.7% increase from the 2017 value of 31.63%.

Financial Status

Direct Economic Value Generated and Distributed

We at Egbin Power Plc. understand that in order to remain the largest contributor of electricity to the grid, we must demonstrate value creation to all relevant stakeholders. A breakdown of movement in the value added is provided below.



There was a break from the consecutive loss position in 2018 despite the challenging environment (especially grid constraint) N3.6billion profit before tax was made during in the financial year compared N9.5bn loss in 2017.

Pension Obligations

The law regulating pensions in Nigeria is the Pensions Reform Act of 2014. Egbin power Plc is aware of our obligations under this act and ensure that proper remittances and deduction are done as stipulated. A pension plan is mandated for every employee of Egbin with a minimum contribution of 8% deducted from the employee's emolument, while Egbin Power Plc, the employer contributes a further 10%.

Employees interested in the additional voluntary contribution are allowed through the payroll systems and prompt remittance to their pension fund administrators. Pension deductions are done through the payroll system while the payroll team provided information on obligations expected and prompt remittances.



Value Added

N19.5 ↑
Billion

489% from N3.3bn in 2017 due to 20% increase in revenue in 2018 and exchange gain in Dollar Assets.



Operating Expenses

N72.2 ↓
Billion

marginal decrease from 2017 figure of N73.4billion



Payment to employees

2% ↓
decrease from 2017



Maintenance of Assets and Future Expansion

31% ↑
increase from 2017



Payment to Government

331% ↓
decrease from 2017



Community Investments

32% ↑
increase from 2017

Financial Assistance Received from Government

Egbin Power Plc, being a major player in the power generation business with gas to power infrastructure and investment of over \$600m in acquisition and upgrade of plant facilities, the government through investment promotion council has demonstrated its support for the industry by approving the application for pioneer status which has availed us three year tax savings which lead to savings that will be reinvest into the business to ensure sustainability, profitability and expansion of the generating Asset.

Egbin power Plc has always demonstrated its capability for growth hence application for the additional tax incentive has been put forward, this will go a long way in achieving the

corporate goal because huge part of its revenue is tied down as receivable by the market.

The application for pioneer status extension for an additional two years is still in progress; this will lead to additional tax saving when approved.

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%).

Investment and Expenditure

Investment in Community Projects

At Egbin, we believe that just as we have benefitted from the host communities, we should equally give back through our extensive personal and corporate social responsibility (CSR) initiatives.

During the 2018 reporting year, we 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 invested in the welfare of the community through donations to schools, hospitals and scholarships to indigenes of host communities etc during 2018 reporting year. Egbin has constantly been looking for ways to give back to the community to ensure not only a profitable business but also a sustainable business for future generations.



Uninterrupted power provided to the local centre; investment in hospitals and scholarships to our host communities



Investment in Human Capital, Safety and Environment

It is important to highlight that the world has gradually moved from just reporting the bottom-line of a business from the profit angle but has now adopted the “triple P” initiative which represents the People, Planet and the Profit. These conceptions ensure the sustainability of the business and avoid environmental degradation.

In adopting this trend, Egbin Power Plc has invested humongous resources in training 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 ensure that we remain within the range of permissible limit at all time) to fixing of broken-down equipment that might otherwise lead to wastage or spill or any kind.

The company also organizes health walks and talks to enable the staff to maintain good personal health and fitness of body and mind. The company complies with policies laid down by the Lagos State Environmental Protection Agency (LASEPA) and National Oil Spill Detection and Response Agency (NOSDRA). This track record is further proven by a history of zero fines or sanctions from the regulatory agencies in charge of environmental protection.



A hand holding fresh green herbs against a blurred background of a field at sunset. The background is a warm, golden-brown color with soft bokeh lights. The hand is in the foreground, holding a bunch of fresh green herbs. The overall mood is natural and sustainable.

Environmental Sustainability

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Egbin Power Plc is a member of United Kingdom safety body known as the British Safety Council. This enables the company to be strategically positioned in our safety management system and actively monitors our active and reactive performance indicators.



Environmental Management

Egbin Power Plc has invested significantly in technologies to improve its conservation of natural resources and its products (Water, Natural gas and Paper). As an environmentally conscious power generation company, we are proactive in the management of environmental and safety issues in the plant. This approach over the years has earned the plant a leadership status, 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 in the country.

Being the largest power plant in Nigeria, the company fully subscribes to the Nigerian Electricity Regulatory Commission Health and Safety Code and Factories Act of 2004 LFN. The provisions of these documents have been the guiding principles in the company's management of health and safety matters. The company also complies with others relevant local and international laws/regulations.

Our environmental activities are closely monitored by regulators such as Lagos State Environmental Protection Agency (LASEPA), National Oil Spill 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 laws of the land in pollution management and control of wastes as it affects the power plant.

Egbin Power Plc is a member of United Kingdom safety body known as the British Safety Council. This enables the company to be strategically positioned in our safety management system and actively monitors our active and reactive performance indicators. This has improved our safety standards. Egbin Power Plc currently does not have any emission trading scheme but there are plans, to invest in energy efficiency technology that are more environmentally friendly. A good example is the use of combined power cycles that utilizes heat waste for another cycle of power generation.

Oil Spill Management

In 2018 Egbin, recorded zero oil spill within the power plant, this translated to 0% spill activities with respect to:

- Oil spills (soil and water surfaces)
- Fuel spills (soil or water surfaces)
- Spills of wastes (soil or water surfaces)
- Spills of chemicals (mostly soil or water surfaces)

In the event of an oil spill, the company has instituted an oil spill contingency plan 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. We have clear requirements and procedures in place to prevent operational spills. Our oil spill management starts with an emphasis on preventing spills or incidents through good planning, design, implementation and operation. In the event of a spill, there is an emergency response procedure as well as a dedicated and trained oil spill response team to ensure efficient and effective containment.

The company's operations in 2018 complied with regulatory requirements and best practices on environmental management. As a result, the host communities are still going about their normal fishing business. Additionally, the company did not record any sanction for non-compliance with the environmental laws and regulations in year 2018.



**Zero oil spill
recorded in 2018**

Effluents Quality Control

The quantity and quality of effluents from our plant is directly linked to ecological impact and operational costs. We strive to keep the impact of our activities on the environment as low as possible, or completely avoid negatively impacting by continuing our commitment to return waste water to the environment at a level that supports aquatic life and keeps it free from harmful and toxic substances because we understand the dangers of mismanaged discharge on the receiving lagoon. The water we return is monitored and treated to achieve full compliance with environmental regulatory bodies as improper management of effluents can affect our relationship with the host community.

Planned water discharges include effluents from cooling water which is used in the plant for closed circuit steam and auxiliary equipment cooling. This water is drawn from the lagoon with the aid of 35,400m³/hr capacity pumps for each of the 6 generating units.

The effluents discharges are waste water used during power generation processes, some of which are primarily used in condensing saturated steam in the condenser and also for extracting heat from closed circulating water coolers. The water is mainly sourced from the lagoon. About 700million m³ of lagoon water was used as both planned and unplanned water discharges that comes from Lagos lagoon for the purpose of cooling condensers and others auxiliary. The variance is only in the temperature of the lagoon water after the cooling process which is higher compared to intake but by design of the Egbin power plant, the water discharge through discharge canal for the water temperature to drop back to its initial temperature before getting in contact with the body of water. The temperature, which affects the level of dissolved oxygen in the water was maintained at an average of 27.5°C. The discharge canal was designed as an open channel with more than 200 meters length and 50 meters width. The length



and width of the discharge canal ensures that the discharge water travels a long distance in order to dissipate substantial amount of heat before it eventually mixes with the larger water body. The quality of water has a lot of advantages on the process and environmental impact on the body of water (lagoon) for preservation of aquatic life and pollution free water that could affect communities living around the power plant.

Planned discharges include operational discharges from demineralization and condensate polishing processes.



What we withdraw is returned to the receiving water body almost 100% unaltered and thus reusable both for the ecosystem and plant operations.



The total volume of planned water discharge from demineralization plant and Condensate polishing plant in 2018 was an estimated 3,4701m³. These values were derived based on process design and number of regenerations carried out, estimated values were determined for demineralization and polisher wastes on account of the amount of water used for each of the processes.

Waste from the demineralization plant and other operational processes are first discharged into neutralization sump pits and after undergoing close monitoring and treatment to control and neutralize the pH, it is released into the lagoon. The pH of our effluents which we neutralize before discharge was at an average of 7.7 for the reporting year, in line with environmental standards. The quality of water is usually taken from various points before discharge and is treated based on results of analysis carried out on samples taken, to meet standards which are safe for aquatic life and other industrial processes and also meet environmental standards.

Other monitored parameters include: Conductivity, total dissolved solids, dissolved Oxygen, Chloride level, total water hardness and total Iron.

The data below showing average values of lagoon water withdrawn and the effluents discharged after use is an indication that what we withdraw is returned to the receiving water body almost 100% unaltered and thus reusable both for the ecosystem and plant operations.



700 Million m³

Lagoon water used as both planned and unplanned water discharges



3,4701 m³

Total discharge from demineralization and condensate polishing plants



7.7

Average PH of effluents,

in line with environmental standards

	pH	Conductivity (S/cm)	Temperature (°C)	COD (ppm)	Total Hardness	Chloride	Total Iron
Operational Discharge	7.7	3758.2	27.5	64.3	441.1	1695.8	610.8
Lagoon Water	7.7	3968.4	27.0	62.5	458.8	1639.5	600.7
FEPA STANDARD	6.0-9.0	NS	40	100	NS	19000	2000

*NS - Not specified

Based on process design and number of regenerations carried out, estimated values were ascertained for demineralization and polisher wastes on account of the amount of water used for each of the processes. Our direct waste is not used by other organizations and cannot be spoken for after mixing with the lagoon water.

Water Utilization

The usefulness of water in a steam power plant cannot be overemphasized. Besides its obvious use as the process fluid, a huge natural body of water is required as a heat sink in the recovery of process fluid at heat cycle end. Water is also used for cooling, firefighting, industrial use within the facility, and domestic as well as sanitary purposes.

Egbin Power Plant extracts its water from two major sources, ground water from six underground wells and surface water from the Lagos Lagoon. The main source for steam generation, firefighting and potable water is provided by six ground water wells while for the purpose of process cooling, lagoon water is employed. During the reporting year, we set out on a mission to determine and account for the amount of water withdrawn from our six deep wells by efficient water management as opposed to the previous reporting period. This was achieved by installing flow totalizers at the discharge of the wells.

In 2018, an estimated seven hundred and ninety thousand metric tons (790,000 metric tons) of ground water was pumped.

Each generating unit is equipped with two 50% duty Circulating Water Pumps which draw water from the lagoon at a design capacity of 17,700m³/hr, for process-water recovery in Unit Condenser and Open-Circuit cooling of Unit Auxiliary Equipment. Three sets of Lagoon Water Pumps are also provided to draw lagoon water primarily for Open-Circuit cooling of the Station's Common Auxiliaries. During normal operation, only one of the three pumps functions with a maximum discharge capacity of 1765m³/hr. There is currently no process or equipment in place to recycle effluent or waste water from both sources for reuse, there are however effective measures, operations and processes put in place to ensure its safe and environmental-friendly disposal.

On the subject of renewable materials directly linked to the generation of



We set out on a mission to determine and account for the amount of water withdrawn from our six deep wells by efficient water management as opposed to the previous reporting period. This was achieved by installing flow totalizers at the discharge of the wells.



electricity in our steam power plant, most prominent is the **chemically conditioned demineralized water**, which traverses the heat cycle and is recovered in the same thermodynamic state as it was initially, to begin the cycle over again. This water cycle is however open, interacting with the surroundings while admitting and ejecting energy, as well as making-up its initial mass. Water goes to demineralization plant where it is pass through the carbon filter to cation resin and anion resin before moved to mixed bed resin

to remove the ion from water and fit for steam production. It is this treated water that is sent to the boiler drum through BFP (Boiler Feed Pump) and passes through series of heating process in order to obtain superheated steam of 5380C and 12.5mpa. The steam generation cycle in Egbin is a continuous system whereby the water is recirculated throughout the system and continually treated to ensure and increase overall plant efficiency by using less makeup water thus minimizing the amount and cost of chemicals used for



the purpose of external water treatment. In 2018, a total of **667,037 tons** of renewable material (demineralized water), produced by the facility's demineralization plant which are used primarily for make-up of the water cycle.

Egbin understands the growing population around the world and how it results in the depletion of resources due to increased demand and, as such, is committed to ensuring sustainability of the environment while also reducing operational costs. The aforementioned value is an aggregation of daily plant water consumption, deduced at the end of each day from flow totalizers provided along each generating unit's make-up supply line to give a breakdown of unit-by-unit consumption.

Egbin power is a self-contained gas and oil-fired steam electric generating station. It operates six steam turbines each of them comprising a steam generator with reheat and superheat cycles. Water required to make up losses due to blow down, vents and drains is provided from a common water treatment plant. Raw water is available from a series of deep wells, six in number. The Raw water needs to be treated from any of its minerals, ions, particles, bacteria, or parasites.

For the purpose of steam generation, boiler water must be of very high purity and must be treated in order to efficiently produce steam of high quality. This is done by the introduction of treatment chemicals into the system for internal treatment of boiler feed water so as to prevent scaling, corrosion, foaming, priming and fouling of the boiler and downstream equipment.

In 2018, **Eight Thousand, Seven Hundred Litres (8,700L)** of **Ammonia (NH₃)** with a 25% stock concentration was injected into the process water to keep its pH within operating limits. **Two thousand three hundred litres (2,300L)** of an **80% stock concentration Hydrazine (N₂H₄)** was used to reduce dissolved oxygen content to within acceptable limits. For the purpose of external treatment before demineralization, **34.835 Tons of Calcium Hydroxide (Ca(OH)₂)** and **4.97 Tons of Calcium Hypochlorite (Ca(OCl)₂)** were used for boosting the pH and bleaching of ground water respectively.



667,037

Metric tons

Renewable material (demineralized water), produced by the facility's demineralization plant

Energy Consumption and Emissions

Green House Gas Management

Emission refers to the production and discharge of something, especially gas. They are usually harmful substances which endanger the environment by altering its chemistry. The atmosphere is a protective blanket which nurtures life on earth protecting it from the hostile environment of outer space. Over time, it has been turned to a dumping ground for many pollutant materials causing damage to human and plant life, property and the environment (S.C. BHATIA). Emission of air pollutants, in Egbin refers to Flue gas and its constituents as the products of our consumption of carbon-containing fossil fuel which exit to the atmosphere via a stack. These emissions contain greenhouse gases, primarily CO₂.

Global warming is the unusually rapid increase in Earth's average surface temperature over the past century primarily due to the increase in volumes of carbon dioxide and other greenhouse gases released as people burn fossil fuels. The global average surface temperature has risen by about 0.9 degrees Celsius between 1906 and 2018. One of the biggest challenges the world faces today is climate change. Over the past century, there has been a considerable rise in statistics of greenhouse gases in the atmosphere leading to a temperature increase of between 0.4 and 0.8 °C. A major contributing factor for this increase is human activities which points to its largest source; the burning of fossil fuels for the purpose of generating electricity, producing heat, and transportation.

Here in Egbin, energy, emissions, water and waste are key components of our sustainable strategy. As we continue 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. Safety being one of our core values, the safety of our environment is key to extensively upholding our commitment to these values. We are steadily advancing initiatives towards the reduction of CO₂ emissions on a global scale.

As we are well aware of the effects increased greenhouse gas emissions have on climatic change, including increased atmospheric temperatures and erratic weather patterns, we are committed to playing an active role in the global march to mitigate these effects. Of great significance to us is the impact our direct carbon emissions from our fossil-fuelled power stations have on the environment. Here, our direct emissions from the facility refer to flue gas and its constituents as the products of combustion in our fossil fuel fired plant which consists of substantial amounts of CO₂, one of the most predominant greenhouse gases.

Increased greenhouse gas emissions lead to higher concentrations in the atmosphere, which contributes to climatic change, including increased temperatures and more variable and erratic weather patterns. Innovations have been put in place to monitor and control harmful emissions and to ensure our operations are in compliance with environmental regulatory standards. We manage our emissions through operational efficiency by firing mainly on Natural gas being that 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 recent times, we have begun a number of tree planting exercises so as to ensure capturing of released CO₂.

Direct Greenhouse Gas (GHG) Emissions

Our direct GHG emissions is majorly comprised of emissions from sources and operational processes owned and controlled by us which include majorly our stack emissions, majority of which is our carbon dioxide emissions. Combustion being an exothermic process causes heat to be lost to the surroundings. We keep heat losses to a minimum by monitoring and regulating the gases in our stack, so as to maximize combustion efficiency, which in turn conserves fuel and lowers expenses. To achieve the highest levels of combustion efficiency, complete combustion should take place and we do this by ensuring the presence of enough air in the furnace for complete combustion to occur. This greatly lowers the formation of CO (carbon monoxide) 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 conducted on a monthly basis on each of our running units, Carbon monoxide (CO) concentration is always null in our stack emissions therefore confirming complete combustion and ensuring environmental sustainability.

In 2018 our direct carbon emissions from the combustion of natural gas for power generation was 2.56 million metric tons.



2.56 Million tons
Average emissions from the combustion of natural gas generated in 2018, due to increase in production

Indirect Greenhouse Gas (GHG) Emissions

These are emissions released into the atmosphere associated with consumption of purchased electricity, heat, steam and cooling.

Based on the fact that all of our heat and electricity is self-generated, these indirect emissions can be tied directly into the already reported scope 1 emissions. This is consequent on the fact that Egbin Power Plc, including its housing colony and other attached appurtenances, at design stage was built to be a self-contained facility. This means that virtually all utilities, primarily electricity, consumed within the facility emanate from what is generated.

The only aspect of emissions left to be considered is that by the Nigerian Gas Company in processing the natural gas we buy for our electricity generation. The nature of emissions as being indirect and excluded from the company's sphere of control inherently makes reporting these emissions a tad involved. But we are confident that the Nigerian Gas Company, a subsidiary of the nation's petroleum corporation is strongly committed to preserving the environment and is all for adhering strictly to environmental regulations. However, some measures to mitigate these emissions are already in place such as the encouragement of the use of non-combustive means of transport like bicycles for staff member's daily commute, as well as mass transit of staff members to and from work, and also encouraging staff members particularly those within the housing colony to take walks to work sometimes.

The average emission rate of CO₂ from combustion of natural gas released relative to the intensity of power generation (MWh) in 2018 is 0.5908 t CO₂e per MWh. Absolute CO₂ emissions are converted to an emissions intensity metric where our CO₂ emissions are calculated per total MWh of electricity generated. The organization-specific metric (the denominator) used is the total MW/h of electricity generated in 2018.

Reduction of Greenhouse Gas (GHG) Emissions

In 2018 our direct carbon emissions from the combustion of fossil fuels for power generation was 2.56 million metric tons from 2.04 million metric tons in 2017. There was no decrease but rather a 25% increase (518,673 metric tons) in direct CO₂ emissions in the reporting year, mostly due to an increase in plant operations.

Other air emissions from our combustion of fossil fuels are NO_x and depending on what fuel is used for combustion, trace values of SO₂. In Egbin, the use of natural gas ensures that we do not contribute significantly to these emissions, as we emit low levels of nitrogen oxides, and virtually no particulate matter. SO₂ and NO_x emissions fluctuate around very low levels. Their quantities are quite small relative to the greenhouse gases. Emissions of sulphur dioxide and nitrogen oxides are the main cause of acid deposition leading to changes in soil and water quality and damage to forests, crops and other vegetation, and to adverse effects on aquatic ecosystems in water bodies. Based on our commitment to a sustainable environment, our operational activities emit minimal NO_x and a very negligible amount of SO₂.

Acid rain has very harmful effects on plants, aquatic animals, insect and infrastructure and is caused by emissions of sulphur dioxide and nitrogen oxide, which react with the water molecules in the atmosphere to produce acids. Acidification also damages buildings and cultural monuments and potentially has links to human respiratory diseases. Egbin is sited by a lagoon which is a habitat for a biologically diverse set of aquatic lives. Acidic concentrations in the lagoon water can cause damage to fish and other aquatic animals. Combustion analysis is carried out constantly to monitor and directly measure emissions ensuring the lowest emissions of these pollutants possible.

Sulphur dioxide emissions

The use of Natural gas for combustion has numerous advantages one of which is that it is the cleanest fossil fuel. It has fewer impurities and its combustion generally results in less pollution. Our combustion process produces negligible Sulphur concentrations. In 2018 no sulphur was detected.

Nitrogen oxide emissions

Nitrogen oxide (NO_x) is mainly generated from the combustion of nitrogen and oxygen contained in the air at high temperatures. Our furnace is fired at about 1000°C and so, formation of NO_x is inevitable but can be controlled so as to yield values as low as obtainable. In 2018, our NO_x emission was approximately 106.68ppm. Combustion analysis was carried out with the aid of a flue gas analyzer to obtain the emission values above.

 **106.68**
ppm
Approximate NO_x
emission in 2018



Our combustion process produces negligible Sulphur concentrations. In 2018 no sulphur was detected.

Waste Management

The environmental dimension of sustainability has to do with an organization's impacts on living and non-living natural systems, including land, air, water, and ecosystem. This includes water discharges, the generation, treatment and disposal of waste and spills of chemicals, oils, fuels, and other substances. Waste is a by-product that results from any process which does not have an economic value to the originator and must be managed from the cradle to the grave. Poor management of waste can lead to the epidemic and negative health impact on the community and those within the location. We aim to reduce the amount of waste we generate and to reuse or recycle materials, wherever possible to ensure as little waste disposal costs as possible. Due to the peculiarity of the operations of Egbin Power Plc, waste management takes priority. The categories of waste generated are mainly garden wastes, metal scraps, burnt electrical bulbs, food wastes, wastewater and gaseous waste (CO, CO₂) are usually stored on site before contracted out for disposal depending on the type of waste. These types of waste are categorized into liquid, solid, domestic and hazardous wastes that are generated during the operation of the power plant. They are further explained below:

Liquid Waste

Liquid wastes (mostly used lubricating and transformer oil) after being analysed is transported to the Anderson store for final disposal by our procurement and stores personnel. The procurement department will contract it out to Lagos State Environmental Protection Agency (LASEPA) for final disposal. Oil wastes were disposed of for recycling through Lagos State Environmental Protection Agency accredited vendors.

Before final disposal of these liquid wastes, we do well to ensure that we recycle using our state-of-the-art oil purifying system and then reuse leading to a reduced disposal frequency. Our dedicated chemistry team, ensures our wastes are not harmful to human health and the environment by thoroughly carrying out checks such as the moisture content and flammability before disposal.

Solid Waste

Solid waste is usually stored on site before contracted out for disposal depending on the type of waste. Disposal of solid waste is handled by the Health and Safety department and then contracted out for disposal to Lagos State Waste Management Agency (LAWMA).

Egbin power plant generated and evacuated about 416 tons of solid waste from the plant in year 2018. 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 generated.



416 tons

**Solid waste evacuated
in 2018**



Hazardous Waste

Hazardous waste is a type of waste that could be potentially harmful to human health and the environment. Therefore, extreme care and caution is taken when handling such waste. Hazardous waste generated within the facility includes acid stock sludge, caustic solution sludge, calcium hypochlorite solution sludge, lime sludge, lye sludge and waste mineral oils. Waste containing acidic or basic solutions are effectively neutralized before disposal into the Lagos Lagoon. Others include used lubricants, waste oil for cooling purposes and printer cartridges etc. Non-recyclable/reusable mineral oils are disposed of by the state's environmental protection agency, Lagos State Environmental Protection Agency (LASEPA).

Hazardous waste transporters play an integral role in the hazardous waste management system by delivering hazardous waste from its point of generation to ultimate disposal destination. This includes transporting hazardous waste from a generator's site to a facility that can recycle, treat, store or dispose of the waste. It also includes transporting treated hazardous waste to a site for further treatment or disposal. No hazardous waste was transported, imported, exported or treated in the year 2018. However, hazardous wastes have to reach a certain threshold of accumulation before it is evacuated from the plant. An agent of Lagos State Environmental Protection Agency (LASEPA) is responsible for its evacuation from site and transporting it to an approved dump site. No hazardous waste was transported internationally in 2018 because Egbin Power Plc does not transport any hazardous wastes beyond the shores of Nigeria. Egbin is not directly involved with the trans-boundary (either inter/intra boundary) transportation of hazardous wastes.

Water Management and Conservation

The Lagos lagoon is a lagoon sharing its name with the city of Lagos, Nigeria, the largest city in Africa, which lies on the south-western side. The lagoon is more than 50 km long and 3 to 13km wide separated by the Atlantic Ocean by long sand spit 2 to 5km wide, which has swampy margins and its surface area is approximately 6,354.7km. The lagoon is the primary source of water for cooling purposes in Egbin power plc. The water used are discharged into a discharge canal which was designed as an open channel with more than 200 meters length and 50 meters in width. The length and breadth of the discharge canal ensure that the discharge water travels a long distance to dissipate a substantial amount of heat before it eventually mixes with the lagoon and has no negative impact on the natural habitat. In Egbin, we compare the intake water with the final discharge effluent to ascertain how our operations affect the properties of the intake water (lagoon water).

The values of the final effluent discharge when compared with the intake values are usually positive and within the Federal Ministry of Environment permissible limits. The villagers still go about their normal fishing businesses.



Environmental Impacts on Transportation

These are the activities involved in moving supplies from point of origin to internal customers. The aims of transportation is to physical move supplies in a reliable and safe manner, on time, cost effectively and efficiently to its destination.

Egbin has no significant environmental impacts of transporting products and other goods and materials for the organization's operation apart from the fact that the road network that links the power plant is in a poor condition. It is worthy of note that majority of the workforce reside in the estate while the few that reside outside the colony come with their personal vehicles or public transport. However, due to the poor road network, delays are usually experienced when materials have to be transported from source to the power plant.

Occupational Health and Safety

Occupational Health and Safety are laws, standards and programs that are aimed at making the workplace better for workers, along with co-workers, family members, customers, and other stakeholders. Egbin power plc has established a common policy of health and safety in all its departments, with the main goal of “Zero accidents”. Internal safety committees are in place as prescribed by relevant health and safety laws to enable management attend to safety issues in a holistic manner and reduce incidents in the plant. In order to achieve a correct implementation of the health and safety measures in the company, committees and subcommittees have been created within the organization. Their mission is to gather information on health and safety at the different operational levels and to involve as many employees in the communication of the current situation and the definition of a preventive plan.

About 17.5% of Egbin employees are involved in safety committee groups. A 30-man committee comprises of the various departmental heads, section heads and some other employees with the Chief Executive Officer as Chairman and head of Health Safety and Environment (HSE) as the secretary are made up of safety management committees. Their key function is to help drive safety commitments and policies in the company. They are also responsible for quarterly plant inspections, and they meet once a month except during inspections.

There is also a 40-man group of safety representatives selected from each of the departments. The safety representatives have two subcommittees; the house keeping committee and toolbox meeting committee. The housekeeping committee takes cares of the housekeeping issues within the plant while the toolbox committee monitors the effectiveness of toolbox meetings being carried out by different departments and sections of the power plant during morning meeting. Any issues beyond the purview of the safety representatives is handled by the safety management committee.

Only one Egbin staff had a minor injury in year 2018, see the table below.



Minor injury - Egbin



Male



Female

Types of Injury	Laceration	Nil
Injury Rate (IR)	1.51	0
Occupational Diseases Rate (ODR)	0	0
Lost Day Rate (LDR)	0	0
Work-Related Fatalities	0	0

Minor Injury - Independent Contractors



Male



Female

Types of Injury	Nil	Nil
Injury Rate (IR)	0	0
Occupational Diseases Rate (ODR)	0	0
Lost Day Rate (LDR)	0	0
Work-Related Fatalities	0	0





Our employees are not involved in occupational activities with a high incidence or high risk of diseases because we have put in place risk mitigation measures.

Our commitments under our HSE policy

- To prevent injury and ill-health to human beings
- Protect the environment and prevent pollution
- Comply with applicable Legal and other requirements
- Ensure continual improvement of the OHSE
- Management system and performance

Disaster/Emergency Planning and Response

Emergency and disaster planning involves a coordinated, co-operative process of preparing to meet urgent needs with available resources. The plan is an exploratory process that provides general procedures for managing unforeseen impacts and should use carefully constructed scenarios to anticipate the requirements that will be generated by foreseeable hazards when they strike.

Egbin Power Plc has robust emergency response policies and procedures which are being tested on a periodic basis to ascertain readiness and continual improvement. We have put in place adequate plans for events such as fire and explosion, oil spills, medical evacuation, chemical, and fuel spills, civil unrest and hostage situations. Proper safety and security arrangements are already in place to prevent any of these events; but if they occur, arrangements for emergency response are in place to avert any disaster to personnel and the power plant.

A 40-member committee known as Emergency Support Staff has been constituted to support fire marshals in case of any emergency situation. They work along with firefighters during evacuation drills to achieve successful drill exercises. Emergency Support Staff are trained for emergency handling and are readily available all the times in duty hours in adequate numbers to assist the firemen team.

40

Emergency Support Staff Committee supports fire marshals in case of any emergency



Social Responsibility

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Stakeholder Dialogue

While maintaining our commitment to the overall improvement of the Company's operations, we maintained our commitment towards achieving sustainable social relations with our stakeholders in the year 2018. The management of Egbin Power Plc has continued to reiterate that the social relations with its stakeholders is a core part of its sustainable management system.

Stakeholders Mapping, Engagement, and Relations

The success of an organization and sustainability of its business are hinged upon the synergy between that organization and each level of stakeholders. Egbin recognizes its coexistence with its stakeholders as a business ecosystem; and has mapped out the needs and expectations for mutual growth and unhindered delivery of power. In its sustainable management system, Egbin mapped out its stakeholders in categories of Regulators, Customers, Suppliers, Employees, Host communities, and Shareholders. A synergy between Egbin and these stakeholders has ensured successful operations in the business environment by

meeting expectations within the company's corporate policy. Also, as a reputable brand, Egbin recognizes that its business success is hinged on social, economic, and environmental responsibilities to these stakeholders.

Egbin's continuous engagement with stakeholders will provide ample opportunity for its stakeholders to understand its decision-making processes which will, in turn, give it the needed support and co-operation for unhindered business operations while maintaining openness and honesty in communicating its strategies, targets, performance and governance policy to the stakeholders.

In the 2018 reporting year, the company actively engaged all stakeholders who are directly and indirectly affected by its operational decisions and no social or environmental issues arose. The company took all feedback received from stakeholders seriously and maintained open dialogue to ensure that the needs/requirements outlined were treated.

Over the years, Egbin has been proactively meeting its Corporate Social Responsibility to its host communities. In the reporting year, the organization maintained its support with the supply of drugs and mosquito nets to the health facilities within the communities; provided quality education through the Powerfields



Over the years, Egbin has been proactively meeting its Corporate Social Responsibility to its host communities. In the reporting year, the organization maintained its support with the supply of drugs and mosquito nets to the health facilities within the communities;



Group of Schools, and also provided Scholarships to deserving students from the host communities who met the entry criteria for Powerfields Group of Schools. We will continue to explore various avenues of maintaining a mutually beneficial relationship with our host communities in the years to come.



Egbin recognizes its coexistence with its stakeholders as a business ecosystem; and has mapped out the needs and expectations for mutual growth and unhindered delivery of power





Stakeholders Support

The relationship of an organization with its stakeholders is critical in ensuring a high level of business performance while upholding the values of honesty, partnership, and fairness in the relationships with these stakeholders. Egbin maintains its support to its stakeholders by:

- Providing training courses and making available its facilities for use to hold seminars and industry meetings;
- Maintaining a clean, healthy and safe working environment in line with its health and safety policy;
- Providing accommodation to critical operatives as approved by the Board of Directors of Egbin Power Plc;
- Establishing and communicating standard maintenance procedures on the allocated apartments to forestall the use of unauthorized persons in carrying out maintenance on the apartment;
- Making admission opportunities into Powerfields Group of Schools available to stakeholders, subject to meeting entry requirements.
- Constituting an all-inclusive committee that meets regularly to discuss NGC and TCN operations and facility related issues with a view to resolving them amicably.
- Providing desired support and co-operation amongst stakeholders, and improving operational communication.
- Paying courtesy visits and familiarization tours to the premises of these stakeholders at least twice in a year to be abreast of their operations, activities and challenges.
- Increasing participation in media engagements and activities to highlight our contributions to national development as well as challenges that may reduce the organization's business performance.

By partnering with the communities, Egbin seeks to



Increase the standard and quality of education in the environment by providing scholarship scheme for brilliant and indigent students from host communities.



Develop environmental policies and objectives as part of the business planning.



Provide sustainable support for infrastructural upgrades within the communities.



Provide employment opportunities (skilled and unskilled).



Encourage dialogue with local communities for the mutual benefit of peaceful co-existence through quarterly community forum with the representatives of each community and courtesy visits to the community leaders.



Support and encourage a thriving local economy through synergy with Ikeja Electric in promptly resolving electricity supply and distribution issues within the communities.



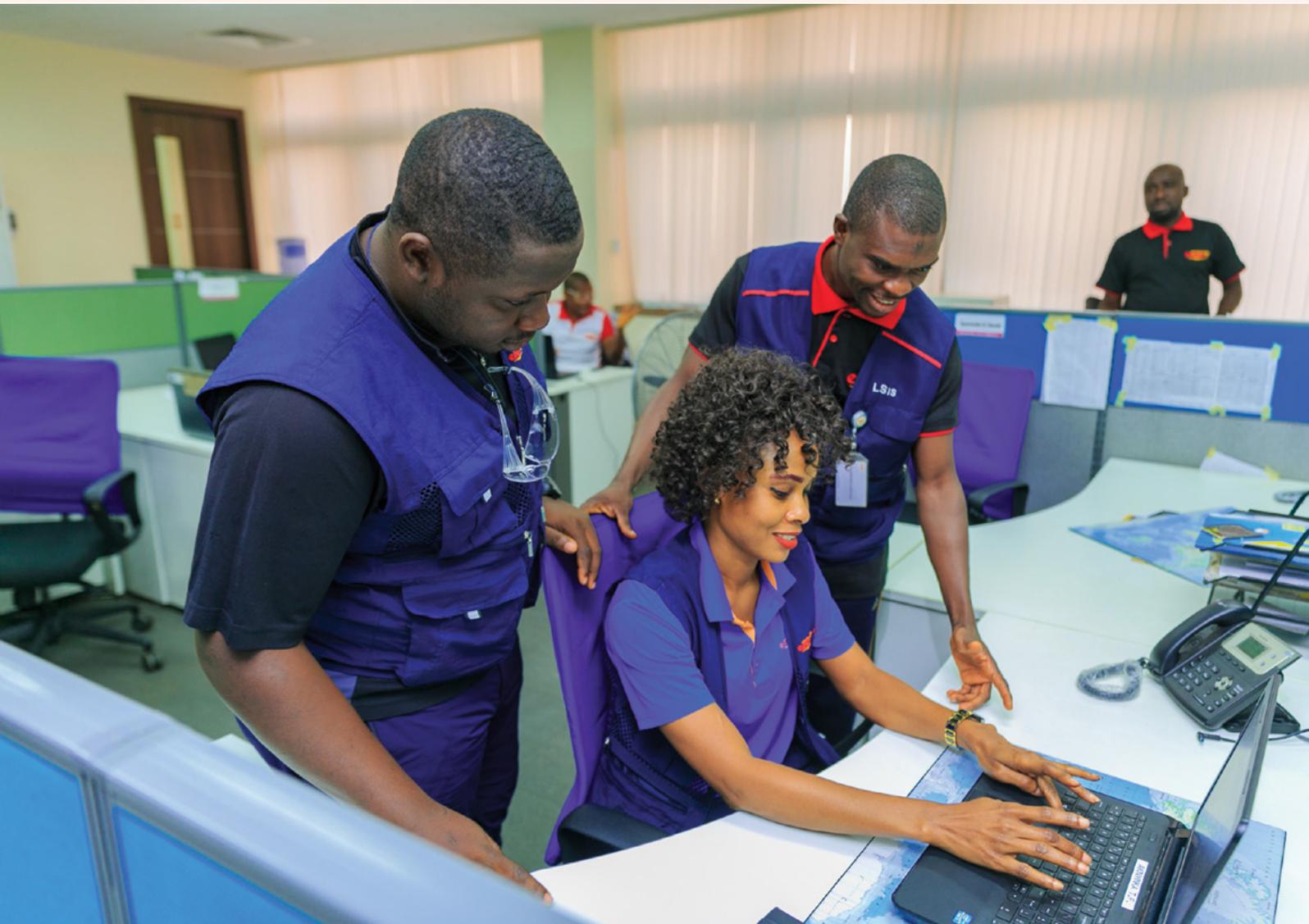
Support and encourage our employees and partners to help local community organizations and activities in our environment, particularly local charities.



Work with public schools (primary and secondary) in our host community, to develop the standard and quality of education, to assist young people in choosing their future careers and to be an advocate for our industry.



Support the provision and availability of healthcare within the host communities through the supply of medicine to the state-owned general hospital in Ijede.



Our People

Egbin prides itself on its competent, resourceful, innovative, dedicated, and physically fit personnel who are committed to the safe, efficient and successful operational services of the organization within the power sector. To support continuous delivery to other stakeholders, Egbin provides its employees with appropriate tools and opportunities for skill development as they experience career development and growth.

Our workforce is well-rounded in the technical and administrative competences which are necessary for the business to thrive. This was achieved with continual knowledge-sharing fora and intermittent familiarization of staff members with other stakeholders, thereby gaining insights into individual contribution to the sustainability of the power sector. This awareness is easily imbibed by new hires through the onboarding program.



Our workforce is well-rounded in the technical and administrative competences which are necessary for the business to thrive.

In the 2018 reporting year, the staff strength of the company as at December 2018 was 375 as against 377 that was reported in 2017. This consists of 335 males and 40 females with employee turnover of 24 at a rate of 0.77. The organization leveraged on its interest in the development of future leaders by engaging the services of 6 (six) graduate interns and 10 (ten) undergraduate interns who were trained during the period of engagement.

In the 2018 reporting year, Egbin maintained its commitment to the operating principles that reward excellence and conduct, recognize business people, society, and environment. This ensured fairness and non-discrimination within the organization and in its relationship with its stakeholders.

Total Staff Strength



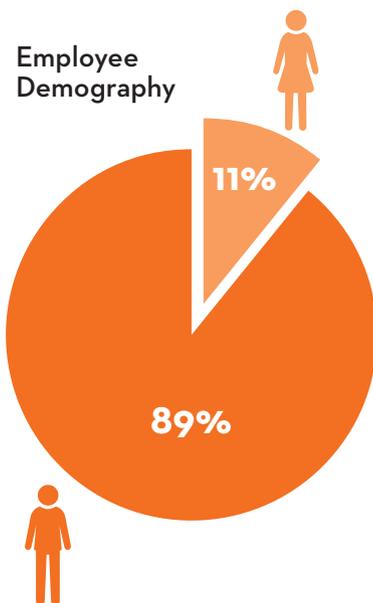
375



In the 2018 reporting year, Egbin maintained its commitment to the operating principles that reward excellence and conduct, recognize business people, society, and environment.



Employee Demography



Diversity and Equal Opportunity

Egbin values diversity and equal opportunity in recruitment and appointments as a tool for development, performance improvement and social commitment to nationhood. This ensured the recruitment and retention of qualified, competent, efficient and excellent employees for innovative business solutions. It is also evident in the diversity of background, groups, race, and gender of the staff members and management. The organization ensured strict adherence to equal treatment of all employees as adopted in its corporate governance policy. This is aimed at ensuring equal opportunity, treatment and welfare base for all employees as well as maintaining high energy, rewarding and favorable business environment.

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 organization.

Egbin has buttressed its stand against discrimination, through an anonymous whistle blowers email address, expressyourself@egbin-power.com. In concordance with equality in the workplace, Egbin provides childcare support systems, ensuring a work-life balance for both genders in the workplace. Some of the packages of the organization's childcare support system include the parental leave, daycare and educational services within the premises of the organization. As opposed to the previous year where we had about 5% usage of the parental leave, in the 2017 reporting year, 2.65% of the employees utilized the parental leave of absence. The parental leave of absence, 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.



11 %

female workforce composition; an improvement from 9% in 2016

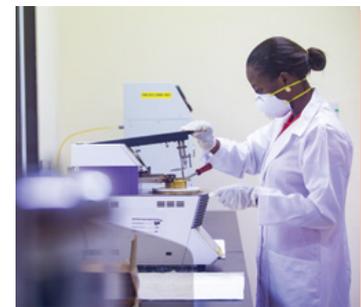


2.6%

Percentage of employees that utilized parental leave



Egbin provides childcare support systems, ensuring a work-life balance for both genders in the workplace. Some of the packages of the organization's childcare support system include the parental leave, daycare and educational services within the premises of the organization.



Commitment to Health and Safety

Egbin recognizes the importance of occupational health and safety of its workforce as not just a requirement for compliance but a priority for its sustainability. This helps the organization in providing initiatives that enable all employees to maintain their overall health and wellbeing.

The protection and enhancement of health and safety of every employee improves organizational and personal productivity which is measurable in reduced incident and accident rate, and lesser downtime as a result of ill-health or human error. The health and wellness policy serves as a guide for our quarterly health education where employees are engaged in interactive sessions with accredited health experts from Hygiea HMO on topics ranging from daily body care to prevention actions against diseases.

A major step that was taken towards the effective occupational health and safety policy in the year 2018 was the creation of awareness and competency amongst employees regarding occupational safety, health and environmental management systems to meet ISO 45001:2018 and ISO 14001:2015 standards respectively.

- Periodic checks for vitals 
- Monthly health walk and aerobics sessions
- Pre-employment medical tests for new intakes
- Confidential review of employee health status
- Health maintenance cover for employee and specified number of dependants

Training and Education

Grooming Future Leaders

As a reputable organization, Egbin is committed to the development of its employees from bottom to top as a strategy towards youth empowerment and national development. In the year under review, the organization recruited qualified young graduates through internal and external recruitment processes and retrained them for the intricacies of the business. Egbin also ensured all-inclusive development opportunities strategically for young employees towards building their business and technical management competencies. The organization also provided students and graduate internship programs for students and graduates of relevant education.



Egbin is committed to the development of its employees from bottom to top as a strategy towards youth empowerment and national development. |



Trainings

Egbin values the training of its employees and recognizes this as a tool for the addition of knowledge and skills for performance improvement. This will result in the organization's overall performance improvement and capability to meet the expectations of its stakeholders within its corporate policy. In the year 2018, Egbin implemented some training programs and learning initiatives put in place for its existing employees and supporting staff in furthering their professional education through part-time studies. The organization also leveraged on its in-house learning and development initiatives across all functions. The in-house learning and development initiative called "Egbin X-Change" was retained in the Human Resources training curriculum to enlighten every employee on various facts relating to the operations of all departments.

Egbin further integrated formal learning process as well as systematic talent management in the areas of internal knowledge sharing and e-learning programs. 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.

In achieving our vision of being the provider of choice wherever energy is consumed, the training initiatives ensure that employees are ready to face new challenges with innovative solutions continually.



The in-house learning and development initiative called "Egbin X-Change" was retained in the Human Resources training curriculum to enlighten every employee on various facts relating to the operations of all departments

Scholarship Program



With commitment to the global achievement of the Sustainable Development Goal 4 which seeks to achieve equal



access to quality education, Egbin aligns itself with this set goal by providing full scholarship to students who are indigenes of its host communities. Egbin views this investment in access to quality education, leadership and development of the next generation as a tool for raising future leaders and industry players for business and global sustainability. In the 2018 reporting year, Egbin continued its scholarship program which was introduced in 2016 for primary and secondary school students who are indigenes of the host communities.

Upon excellent performance in the keenly competitive selection process and meeting the admission criteria for Powerfields Group of Schools, scholarship and admission were offered to students based on merit. In the 2018 reporting year, 18 (eighteen) indigenes were funded as beneficiaries of the Egbin Scholarship Programme.

In a bid to promote excellence as a strategy for grooming the beneficiaries as industry leaders in their future professions, the scholarship program ensured that beneficiaries attain outstanding performances which position them as individuals to reckon.



18

Indigenes funded as beneficiaries of the Egbin Scholarship Programme

Technical Visitations

In the 2018 reporting year, the organization opened its doors to different groups and institutions who expressed their interests in visiting the facility to learn about the power sector and the business operations of Egbin Power Plc. The organization views this as an opportunity to create awareness on the relentless endeavours of all players of the industry and as such, arouse the interest of citizens in providing support to the industry by ensuring productive and efficient use of electricity.

Investment in Future Leaders

The company values the training, education, and exposure of young minds as a strategic tool in grooming future leaders who will be capable of business and technical management within the organization. In 2018, the year under review, Egbin engaged the services of 6 (six) National Youth Service Corps members and 10 (ten) interns whose disciplines were closely related to our organizational functions and other relevant business areas. This is congruent to the organization's strategy for the development of future industry leaders through its social development programs.

Energy Security

Further to the commitment to continually improve its business processes, Egbin commits itself to investment in the deployment of technologies that will optimize its operations and reduce the internal consumption of energy. As a social commitment to the energy security from fuel use to energy delivered to the end use, Egbin positions itself at a point that supports the nation's electricity per capita. To achieve this, the organization deployed smart meters at strategic points of commercial, social and residential use, with the aim of inculcating energy management awareness in its internal stakeholders as well as improving its energy accounting system.





Appendix

IN THIS SECTION

76 Sustainable Development Goals

77 GRI Index





	Goals	Specific Project(s)
	Alleviate Poverty in all its forms in the community	<ul style="list-style-type: none"> ● Economic empowerment project in Ijede
	Prevention of Malaria Outbreak in the community	<ul style="list-style-type: none"> ● Upgrade of Community Health Center Facility ● Monthly Donation of Malaria prevention drugs
	Ensure Sustainable Quality Education for all ages	<ul style="list-style-type: none"> ● Establishment of Powerfield Group of Schools for Children ● Economic Empowerment Project in Ijede for boat technicians, boat drivers and tailors
	Achieve Gender Equality empowering females in the industry	<ul style="list-style-type: none"> ● 10% of total staff strength are females ● Vocational Skill Training for Women in the Community ● Management positions occupied by women
	Ensure availability and sustainable management of water for all communities	<ul style="list-style-type: none"> ● Provision of Boreholes and water handling facilities within every surrounding community
	Ensure access to affordable and clean energy for all	<ul style="list-style-type: none"> ● Clean electricity production using Natural Gas
	Promote Sustainable Economic growth and productive employment	<ul style="list-style-type: none"> ● The overhaul projects on the Plant, provided employment for indigenes of the local communities ● Recruitment of 33 young engineers, 15% being beneficiaries from the local communities
	Develop quality, reliable, sustainable and resilient infrastructure, to support economic development	<ul style="list-style-type: none"> ● Upgrade of Steam Turbine Control System to a digital Distributed control system
	Ensure access for staff to adequate, safe and affordable housing and basic services	<ul style="list-style-type: none"> ● Donation of Communication equipment to Local Police Stations ● Upgrade of recreational and housing facilities within housing colony
	Ensure sustainable management and efficient use of natural resources	<ul style="list-style-type: none"> ● Installation of water consumption totalizers
	Integrate climate change measures into company policies, strategies and planning	<ul style="list-style-type: none"> ● Establishment of Green Areas in the power station ● Clean electricity production using Natural Gas
	Prevent and significantly reduce marine pollution of all kinds	<ul style="list-style-type: none"> ● Oil spill management training and awareness of staff member ● Installation of containment boom

GRI 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 to assess our performance in 2017.

In the spirit of sustainability, Egbin has ensured that the 2017 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 2017.

Additionally, the report may be compared to the previous edition, and this should enable stakeholders to 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 regularly, 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.

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, 2017 was 377 as against 386 that was reported in 2016. This consists of 337 males and 40 females with employee turnover of 18 at a rate of 0.57. The organization leveraged on its interest in the development of future leaders by engaging the services of 6 (six) graduate interns and 44(forty-four) undergraduate interns who were trained during the period of engagement.
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	-

GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
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

GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
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	Stakeholders' 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.

GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
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 and 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 2017 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 2017 to December 2017
Disclosure 102 - 51	Date of most recent report.	-	Disclosed	November 2017
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 2017 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	-

GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
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	-
GRI 205: Anti - Corruption				
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.	-	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.

GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
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
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
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.
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 29.79%.
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.

GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
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.
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

GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
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
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 2017. Systems may be put in place to collate the information in the nearest future.
SOCIAL				
GRI 401: Employment				
Disclosure 401 - 1	New employee hires and employee turnover.	-	Disclosed	In 2017, Egbin Power Plc hired 6 (six) graduate interns and 44(forty-four) undergraduate interns; with an employee turnover of 18 at a rate of 0.57.
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 and Welfare packages

GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
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 Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
GRI 402: Labour Management Relations				
Disclosure 402 - 1	Minimum notice periods regarding operational changes.	-	Disclosed	One Month
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.
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 2017, there were no local or international trainings due to paucity of funds.
Disclosure 404 - 2	Programs for upgrading employee skills and transition assistance programs.	-	Disclosed	On the Job Training, In-house Plant Training, Scheduled Trainings
Disclosure 404 - 3	Percentage of employees receiving regular performance and career development reviews.	-	Disclosed	Male: 100%Female: 100%
GRI 405: Diversity and Equal Opportunity				
Disclosure 405 - 1	Diversity of governance bodies and employees.	Our People Gender Diversity	Disclosed	-
Disclosure 405 - 2	Ratio of basic salary and remuneration of women to men.	-	Disclosed	Ratio 1:1

GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
GRI 406: Non - Discrimination				
Disclosure 406 - 1	Incidents of discrimination and corrective actions taken.	-	Disclosed	None
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
GRI 408: Child Labour				
Disclosure 408 - 1	Operations and suppliers at significant risk for incidents of child labour.	-	Disclosed	None
GRI 409: Forced or Compulsory Labour				
Disclosure 409 - 1	Operations and suppliers at significant risk for incidents of forced or compulsory labour.	-	Disclosed	None
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 have undergone human rights trainings.
GRI 411: Rights of Indigenous Peoples				
Disclosure 411 - 1	Incidents of violations involving rights of indigenous peoples.	-	Disclosed	None
GRI 412: Human Rights Assessment				
Disclosure 412 - 1	Operations that have been subject to human rights reviews or impact assessments.	-	Disclosed	None
Disclosure 412 - 2	Employee training on human rights policies or procedures.	-	Disclosed	None at the moment.
Disclosure 412 - 3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening.	-	Disclosed	None at the moment.
GRI 413: Local Communities				
Disclosure 413 - 1	Operations with local community engagement, impact assessments, and development programs.	Improved Health Care and Safety of Marine Life, Investment in the Sustainable Future	Disclosed	-

GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
Disclosure 413 - 2	Operations with significant actual and potential negative impacts on local communities.	Major Environmental Issues	Disclosed	-
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.
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 local indigenes for the impacts of the construction of the power plant, was systematically carried out.
Former Electric Utilities Disclosure 21	Contingency planning measures, disaster/emergency management plan and training programs, and recovery/restoration plans.	Spill Management	Disclosed	-
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.
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 2017.
Disclosure 414 - 2	Negative social impacts in the supply chain and actions taken.	-	Disclosed	In the reporting year 2017, no supplier was penned down to have significant actual and potential negative impact on the society with respect to our supply chain management system.
GRI 415: Public Policy				
Disclosure 415 - 1	Political contributions.	-	Disclosed	None
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.

GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
Disclosure 416 - 2	Incidents of non-compliance concerning the health and safety impacts of products and services.	-	Disclosed	None
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
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.
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.
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.
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).
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	-

GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
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



