

Sustaining Optimal Performance



2019

Sustainability
Report

Sustaining Optimal Performance

ABOUT THIS PUBLICATION

This is the Fifth Sustainability Report for Egbin Power PLC.

The Data in this report covers the period of January through December, 2019.

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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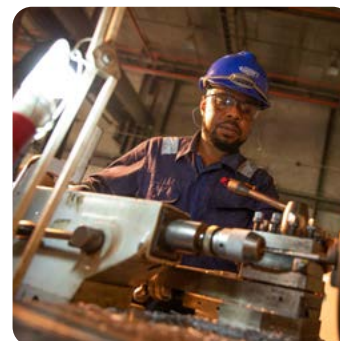
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Report 2019**

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Board Chairman's Message



Temitope Shonubi
Chairman

2019 was a remarkable year for us at Egbin Power Plc and we are thrilled to share our sustainability report with you, which outlines our economic, environmental and social impact for the reporting year. Our objective to bring energy to life and light up Nigeria/Africa remained our core focus in 2019 regardless of the obvious challenges in the power sector. As the largest privately-owned power generation plant in Sub-Saharan Africa, we embrace the all-important responsibility of playing a lead role in our industry and the environment in which we operate, and we are more than happy to unveil insights into our steps towards sustainable growth throughout the reporting year.

The Board and management of Egbin Power Plc understand the need for the company to properly discharge its duties within the confines of the applicable laws and regulations. As such, we pride ourselves on the fact that we do not fall short on our obligations and commitments. Egbin has a track record of good governance that is widely acclaimed in the industry we operate in and we remain committed to continued compliance with all applicable legal/governance requirements in Nigeria also based on global best practices. It is worthy of note that, during the reporting year, we were able to demonstrate our high level of compliance by not incurring any penalties or fines due to non-compliance with laid down laws and procedures.

Sustainable Investments

Egbin Power Plc is a major player in the power sector, with gas to power infrastructure and investments of over \$600m in acquisition and upgrade costs for the plant facilities. Despite the sector-wide challenges, we remain resolute in our quest to contribute to the growth and development of Nigeria's economy through continuous investments in the power sector, which we believe is critical to accelerating sustainable development. Furthermore, any gains from the tax relief granted by Nigerian Investment Promotion Commission during the first five years of takeover have been reinvested into the business to ensure sustainability, profitability and expansion of the generating asset and its people.

We have continued with the overhaul of all our assets including generating units and ancillary equipment in order to guarantee our ability to meet up with our power supply obligations to our offtakers. During the reporting year, we invested in the construction of a Water Intake Perimeter Fence and also replaced of our former 1.5MW capacity Emergency Diesel Generator (EDG) with a 2MW capacity EDG.

Simultaneously, we are taking steps to invest in an industrial park, which we believe would boost the economy of our neighbouring and host communities and the entire country as a whole. It is envisioned that this will create employment opportunities and much needed infrastructure development for the organisation, host communities and Nigeria's economy at large; as well as the entire region.

We still plan to double the capacity of Egbin power plant through our proposed expansion. This project is expected provide additional capacity of up to 1800MW of electricity, which we are confident will support the exponential growth of the Nigerian/ regional power sector.

Economic Overview

2019, being an election year, was quite eventful. Nigeria's Gross Domestic Product (GDP) expanded by 2.2% with a corresponding growth in population of 2.6%. However, the energy demand for a population of over 200 million people was yet to be sufficiently met as at the year under review. The continuous reduction in oil prices had a negative impact on the Nigeria budget; and also contributed to the instability of Naira. In the course of the year, the Nigerian Bulk Electricity Trading Plc (NBET) and the Federal Government of Nigeria suspended the Payment Assurance Scheme, which was a huge cashflow boost in the previous year, guaranteeing payment of 80% of all power generation

invoices. Like previous years, the transmission grid constraints persisted, with Egbin only being able to generate an average of 398MW which was a decline compared to the 495MW generated in 2018. This affected our expected revenue for a significant part of 2019.

We at Egbin Power Plc understand that in order to remain the largest contributor of electricity to the national grid, we must demonstrate value creation to all relevant stakeholders. Despite the fiscal and regulatory challenges, the management focused on strategically identified material issues ranging from the liquidity constraints due to huge receivables from NBET, Egbin expansion project, staff welfare to plant overhauls.

Innovation

One of our core objectives is for us to achieve optimum efficiency through the deployment of technological upgrades in our operations. Technology is a vital part of our growth strategy in the organization; and we have continuously progressively deployed the latest and innovative tools that reduce cost, improve efficiency, and quantify performance data. In the past we onboarded the Computerised Maintenance Management System (CMMS); and now, we are considering the addition of condition monitoring tools in pursuit of a more proactive maintenance advantage.

In the course of the year our technical library was fully digitalised to facilitate easier electronic referencing of vital design, operational and maintenance information. The organization's focus is to invest in more advanced project delivery tools.

Outlook for the Future

Our vision for the future envisages an efficient, reliable and growing power industry, that is more liquid and unconstrained in its ability to deliver the much-needed power to the national grid. We are working to help actualise this desired future by reducing our cost of operations, improving availability and reliability, leveraging technology and continuous investment in learning and development.

In order to secure new revenue streams, we are actively pursuing the eligible customer scheme which permits end-users consuming above 2MW to purchase power directly from generation companies. Also, we would like to reiterate our willingness to partner with the Lagos state government with respect to power supply from Egbin Power plant under the Light-UP-Lagos project. We remain committed to the contributing our quota to the attainment of the United Nations Sustainable De-



We at Egbin Power Plc understand that in order to remain the largest contributor of electricity to the national grid, we must demonstrate value creation to all relevant stakeholders



We remain committed to the contributing our quota to the attainment of the Goal 7 & 13, which we have adopted, as we actively introduce sustained measures directed at heightened environmental responsibility by reducing our carbon footprint, offsetting our foot print with aggressive tree planting initiatives and onboarding viable renewable sources into our energy mix.



velopment Goals (SDGs) particularly Goal 7 (Access to Affordable and Clean Energy) and 13 (Climate Action) which we have adopted, as we actively introduce sustained measures directed at heightened environmental responsibility by reducing our carbon footprint, offsetting our foot print with aggressive tree planting initiatives and onboarding viable renewable sources into our energy mix.



We believe that reliable energy is a key driver of technological and economic advancement globally. Therefore, all our short/long term plans are geared towards a sustainable future for Egbin Power Plc as well as the Nigerian economy at large

Conclusion

We believe that reliable energy is a key driver of technological and economic advancement globally. Therefore, all our short/long term plans are geared towards a sustainable future for Egbin Power Plc as well as the Nigerian economy at large. We will continue to explore opportunities for the sale of power to willing buyers within and outside Nigeria, as part of our objective to light up and industrialize Africa. We believe Egbin Power Plc must remain a leader in this pivotal sector, by working closely with all relevant stakeholders especially the government to facilitate the delivery of reliable, affordable and sustainable energy for all. The challenges we are currently facing make it clear that no single entity can solve all the issues by

itself. However, in spite of the myriad of challenges, we remain strengthened in our resolve to work collaboratively with the government in addressing the structural imperfections, as well as other partners in the energy value chain in order to build a robust and resilient power sector.

Thank you.
Temitope Shonubi
 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

Paul Harriman
Acting Chief Executive Officer
Egbin Power Plc



In 2016, Egbin Power Plc became the first company in the power sector to publish a sustainability report. Since then, we have continued our journey in ensuring sustainability through the company's strategic outlook. At this moment in time, we are pleased to unveil our 2019 Sustainability Report, which is the fifth edition since we commenced our annual sustainability reporting. This year's report has captured the significant achievements and the existing concerns in our business. The rationale behind this is to ensure that we operate responsibly and sustainably despite the challenges we encounter. Throughout the year under review, we strived to maintain our corporate objective of attaining "85% Plant Availability". In order to achieve and sustain this, we focused on building a robust human capital, carried out comprehensive equipment overhauls and incorporated asset management best practices in our daily operations.



Paramount in our long-term objectives is to expand our installed capacity at Egbin when the proposed 1,800MW Phase II becomes a reality

Strategic Priorities



Staff welfare remains paramount and has helped to make our Plant a preferred professional destination for great talents. This is evident in our increased staff strength that is poised to keep up the good work that our employees have been doing over the last 35 years. Our strategic success extends to the achievement of full compliance with regulatory authorities without sanctions. This is a testament to the corporate drive of Egbin to maintain sustainable operations as well as a successful business.

Also, important to us is the occupational, health, safety and environmental management which has yielded positive results which can be seen from our attainment of 3 million man-hours without lost time injury towards the end of the reporting year. We are striving to meet the international standards in this regard, especially with respect to ISO 45000:2018 and ISO 14001:2015. In conducting our core business of power generation, we have set the bar high based on the availability of our generation capacity, and the efficiency of our plant and processes. The target for us is to maintain 85% of our installed capacity at all times, and strive to do even better.

The very well documented challenges in the industry have limited the evacuation of generated energy. Particularly, transmission grid limitations are a continuous concern that causes us to operate at a reduced capacity which impacts our efficiency and

ultimately the profitability of our business. Our strategy is to focus on collaborating with our stakeholders, to find immediate and lasting solutions to the issues that are critical to the power generation business in Nigeria.

Paramount in our long-term objectives is to expand our installed capacity at Egbin when the proposed 1,800MW Phase II becomes a reality. For now, we have continued to maintain and overhaul the existing plant to fulfil our power supply obligations to the national grid. As we continue to strive towards the achievement of our goals, we will implement international best standards to safeguard the continued success of Egbin Power Plc and maintain our leadership position in the industry.



3 Million Man-hours Recorded without lost time injury

Key Events, Achievements and Failures In 2019

As mentioned above, Egbin achieved a major milestone of recording 3 million-man hours without lost time injury. This was a remarkable feat and a testament to the concerted efforts to maintain health, safety and environment standards across all functions in our facility.

The Asset Management initiatives introduced in 2019 led to improvement in plant availability to 76% in 2019 from 69% in 2018. Plant reliability also increased to 84% in 2019 from 78% in 2018. Overall electrical energy generated in 2019 was 3,786,239MWh. Significant and sustainable improvements in the plant's commercial and technical performance is expected in 2020 and beyond, when the aforementioned Asset Management initiatives are deepened and further consolidated.

As in previous years, we still experienced grid and gas constraints which affected our core business and generated revenue. Nevertheless, we have strived to achieve optimal operations and maintained our investments in our human capital and infrastructure. Also, it important to note that the plethora of challenges we face in the industry has greatly discouraged the debt markets from injecting financial capital into power projects. That said, Egbin has maintained capacity availability despite the operational and financial challenges.

Our Commitment Towards Building a Sustainable Organisation

In 2019, there was a deliberate effort to build up the human capital capacity of our employees, being our most valuable resource. We spared no expense in ensuring that relevant trainings were conducted. Identified knowledge and skill gaps were filled with the required training. Every investment in our remarkable team pays dividends in the improved expertise and continued productivity. Our drive towards building and enhancing our highly skilled workforce includes the employment and training of young technicians on a rotational basis across departments. In addition to building up our personnel, we committed the required resources to ensure we have the needed tools, spares and consumables required to equip our team to perform the yeoman task of operating, maintaining our generating units. This ensures that we continue to carry out our primary function and meet our power supply commitments as stipulated under our power purchase agreements.



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Every investment in our remarkable team pays dividends in the improved expertise and continued productivity

0 Harm, Compliance & Sustainability Policy Implemented

x2 Female Staff In Technical & Administrative Roles

20 Fully Paid Scholarships
Given to exceptional indigenous students in our operating communities

Our General Management and Organisational Approach



Financial Capacity

During the reporting year, we continued to maintain our strategic partnerships with different credible financial institutions across the country towards ensuring our sustainability. The financial instruments we secured, ensured that the plant was able to provide payment security and financing to purchase gas, generate and supply power to the National Grid, in line with our contractual obligations.



Environmental consciousness

Throughout the reporting year, our business continued to be environmentally friendly. We implemented preventive measures to ensure zero harm, compliance and sustainability. We also developed our environmental management system to be in accordance with the ISO14001:2015 international standards.



Gender Equality

Gender equality is not only a fundamental human right, but a necessary foundation for a peaceful, prosperous and sustainable business. It is important to note that many strategic positions in the management of Egbin Power Plc are occupied by women. We continue to implement policies and initiatives that shows gender neutrality and there is no form of gender-based bias in our corporate decisions. As a reputable and forward-thinking organisation, we are particular about the value each individual brings rather than his or her gender. It is worthy of note that the number of female staff working in technical, engineering and administrative roles at Egbin has more than doubled in the past few years.



Corporate Social Responsibility

Every year we continue to support our host communities by providing free medicine, uninterrupted power and treatment to local hospitals, infrastructure improvements and scholarships. More than 20 fully paid scholarships are given to exceptional indigenous students in the neighbouring communities to enable them to attend our schools. The year under review was no different, as can be seen in the Investment and Expenditure section of this report.

Paul Harriman
Acting Chief Executive Officer
Egbin Power Plc

Profile

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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 demineral-

ization 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 super-heated 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.





KEY PLANT FACTS



20%
Total Energy
Egbin supplies to
the national grid



6
Total gas fired
stream turbines



98%
Generator
efficiency levels



Our Core Value System

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.

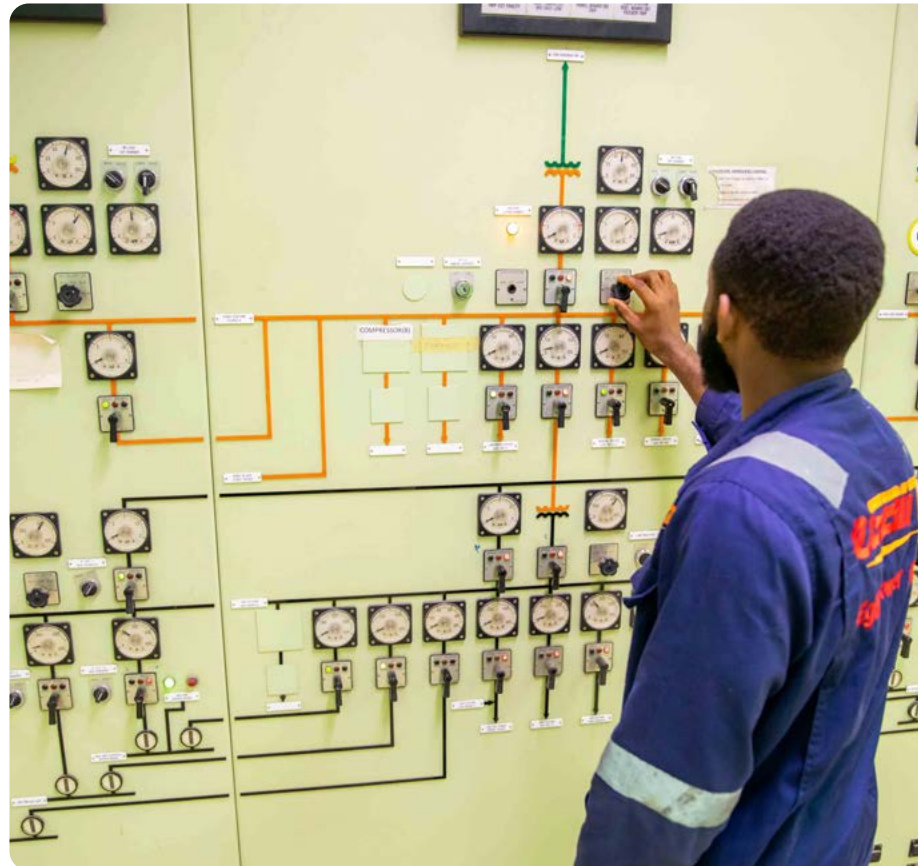


The need for increased transparency necessitated the creation of internal control mechanisms to reduce business risks to the barest minimum, with the resolve to eliminate them in the near future.

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.

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.



Business Framework



Policies



Process



Systems

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 being generated. This assistance may be in the form of funding for maintenance projects or equipment upgrade.

The power industry in Nigeria is a strictly 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.

Our determination to carry out power generation using our core values (SPICES), which includes sustainability, has enabled Egbin to adopt the international best practices 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 Operating Officer

Chief Financial Officer

Human Resource Manager

Operations Manager

Maintenance Manager

Procurement Manager

Support Services Manager

Legal Adviser

Chief Security Officer

Business Approach

International Operating Standards

At Egbin Power Plc, we are committed to ensuring that nothing short of international standards 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, and building upon our enviable performance in 2018, we achieved again in the 2019 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.

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Zero fatalities recorded in 2019 reporting year & extremely low emissions

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 2019.



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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.

Sustainable Development Goals

As previously reported, 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 SDGF'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 serves the purpose of driving the efficient implementation of our business operations based on laid down compliance procedures.

Plant Operations & Maintenance

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Celebrating Maintenance Successes: A Robust In-house Technical Capability

Like it had done over the years since the transition into a privately owned entity, the company continued to leverage on the in-house capacity of its technical team to build upon the successes recorded in the 2018 reporting year. The in-house operations and maintenance work groups in 2019 continued to demonstrate resilience and innovation in meeting the maintenance needs of the six generating units of the plant in a cost-effective manner.

In a bid to drive efficiency and maximize the latent potential within the maintenance workgroups, the mechanical sections (Turbine and Boiler) were merged into a sole function under common oversight. As such, the Mechanical Department is laden with the task of ensuring the availability of the steam generators, turbines and auxiliary equipment across all the six generating units cocooned in the company's four Business Generating Centres. The core importance of this section in driving the production of high-quality steam used to produce electricity cannot be over emphasized. The efficient execution of the department's functions ensures Egbin remains the provider of choice where energy is consumed.

As with the maintenance sections, the Instrumentation & Control workgroup also experienced a major restructuring designed to improve and strengthen the capacity of its human capital. The leadership of the section was restructured and various new roles and positions were created and filled up. However, due to the importance of the section to the smooth and safe running of the plant, emphasis was placed on human capital development; as the Instrumentation & Control discipline is continuously evolving and therefore, it became necessary to develop the level of expertise required to meet that trend. To help with building capacity, in-house job-training exercises were conducted



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As part of our efforts to further bolster human capital and aid succession planning across the operations and maintenance workgroups, the company successfully engaged over 19 young engineers from its talent pipeline via the Graduate Engineers Program (GEP). They were trained at the prestigious National Power Training Institute (NAPTIN) and have since commenced job rotations within the various Operations & Maintenance (O&M) departments.

with emphasis on the Emerson Ovation Distributive Control System (DCS). Finally, as part of our efforts to further bolster human capital and aid succession planning across the operations and maintenance workgroups, the company successfully engaged over 19 young

engineers from its talent pipeline via the Graduate Engineers Program (GEP). They were trained at the prestigious National Power Training Institute (NAPTIN) and have since commenced job rotations within the various Operations & Maintenance (O&M) departments.



During the course of the reporting year, the O&M workgroup accomplished a number of technical feats; and some of these include:



A. Rectification of Air Leakages

The Maintenance Department took measures to address the problem of air leakages on pneumatically actuated Instrumentation & Control equipment in all six generating units. This is particularly important as a significant portion of all Instrumentation & Control equipment within the station are pneumatically operated. The negative impact of these air leakages on equipment performance and service reliability cannot be ignored. In order to prevent this, the department took steps to identify and correct this issue. This was done by carrying out targeted checks to detect and replace all air leakages across all units. The conclusion of this challenge helped to significantly reduce failures on pneumatic equipment in the 2019 reporting year.

B. Repair of ST-1 Middle Burner Level Windbox Dampers

The windbox 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 automatic control of the dampers. This further ensured that the combustion control system could operate properly on automatic mode thereby ensuring proper stoichiometric combustion within the boiler furnace. This helped to an improvement in boiler efficiency.

C. Replacement of Burnt Control Valve Cables on the Turbine Control System for ST-3

Other note-worthy milestones achieved by the O&M workgroups during the 2019 reporting year include:

1. Smooth maintenance activities with zero lost time incidents recorded for Boiler and Turbine departments.
2. Boiler statutory inspection and non-destructive testing with a view to boiler certification for the first time in the history of the station.
3. Improvement of boiler efficiency by detection of air intake defect with the clogged steam coil air heaters.
4. Major repair of ST-02 boiler drum by reuse of damaged equipment due to lack of spares for the first time in the history of the station.
5. In-house clearing of debris from down comer manifold for the first time in the history of the station.
6. Manual control of ST-04 auxiliary steam control valve to prevent damage to the auxiliary steam safety valve due to absence of spares.
7. Major maintenance of Fresh Water Tank B.
8. Restoration/overhaul of ST-03 after long outage due to bearing failure was completed.
9. Major repair on Station Air Compressor C electric motor to replace bearings ensuring continuous availability of compressed air.
10. Type A Inspection was carried out on Unit 5 hence increasing its availability.
11. Rehabilitation of Unit 2 and Unit 5 hot wells was carried out for the first time ever in the station.
12. Major repairs on No 5 and No 6 HP Heaters for Unit 2 and Unit 6 were carried out to restore heater effectiveness.
13. Major problem of poor vacuum on ST-02 which would have required the station to procure the services of expatriates was solved using in-house resources and thus saving cost.
14. Replacement of Fresh Water Fire Fighting Jockey Pump and Diesel Engine Fresh Water Fire Fighting Pump to ensure the integrity of Fire Fighting System.

Finally, procurement of new materials and work tools such as various calibrators and meters which are very critical for the safe and effective completion of various maintenance tasks which are undertaken regularly within the department. The department also began the process of procuring the critical items which will be required to carry out the overhaul of ST-02 scheduled for 2020.

Fostering Safety: HSE as a Core Driver of O&M Activities in Egbina

As with other years, the company continued in the 2019, with its drive to ensure that all Operations and Maintenance activities within the facility were conducted in a manner that was safe for both the personnel and the assets, as well as the environment. In 2019 alone, over 17.5% of employees at Egbina were involved in safety committee groups activities. A significant component of these were team members drawn from the O&M workgroups. The management safety committees (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 HSE as the secretary. Their core objective is to help drive safety commitments and policies in the company.

Also, there is a 40-man committee 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 care of the housekeeping issues within the plant and toolbox committee monitors the effectiveness of toolbox meetings being carried out by different departments and sections of the power plant. Issues beyond the safety reps is handled by the safety management committee.

To further enhance the capacity of personnel and entrench the culture of workplace safety, several training programs on a wide range of topics like Lifesaving Rules, Hazard Identification and Controls, Egbina Safety Work Process, Plant & General Safety Rules and Orientation, Work at Height etc were conducted to close identified capacity gaps and to deepen the corporate culture of safety across the most critical O&M workgroup.

In addition to this, Egbina Health Safety & Environment personnel also conducted work specific on-site safety education to contractors and their employees to minimize the likelihood of accident inducing behavior occurring. A comprehensive Occupational Health & Safety Management System (OHS-MS) manual was also developed and staff members robustly trained on it.



17.5%

Employees at Egbina were involved in safety committee groups activities

OUR CORE SAFETY DRIVER



30-Man Committee

comprising of department heads, sections heads and CEO

40-Man Committee

comprising safety representatives from each department



Within the O&M workgroups, as part of efforts to ensure compliance with established safety procedures, the following procedures were adopted:



a. High consistency in conducting toolbox meetings prior to jobs



b. Strict adherence to the approved Permit to Work System



c. Adequate utilization of Personal Protective Equipment in job delivery



d. In-house trainings whenever possible on HSE concepts



e. Periodic certification of personnel, equipment, and accessories where applicable to ensure their conformity to safety standards

Sustaining Operational Performance

Upholding International Operating Standards within the Generating Process

Our business model is designed to help us achieve the corporate goal of being the preferred supplier wherever energy is demanded. As such, as a business, we have continued to evolve and innovate to enable us pioneer a sustainable and profitable business even in the midst of challenging industry constraints. The 2019 reporting year was no different as we built on the successes of previous years by continuing to operate with zero fatalities, reduced emissions and a plant improvement and performance framework that worked aggressively to identify and minimize any losses due to energy wastage within the generation process.

At Egbin, for steam generation, the boiler can utilise two sources of fuel for combustion: Natural Gas and High Pour Fuel Oil. However, given the cost advantage of running the units with natural gas, no High Pour Fuel Oil was used to run the units in 2019.

Asset Management Philosophy

The Asset Team set forth by developing and signing an Asset Management Philosophy and Strategy Document, which defined the overall Asset Management objectives for the plant and the BGCs, as well as the strategies for their realization.

We identified three key instruments to support these objectives namely: People, Equipment (assets) and Processes.

A. People Development

We recognized People as the most important asset, and determined that a well-motivated and competent workforce, is indispensable towards the successful realization of the Asset Management objectives. We therefore developed an Asset Management Competence Assurance Framework to manage the skills and competencies required for Asset Management in the enterprise. We liaised with the Human Resources team to progressively develop Competence Assurance Frameworks for the technical departments in the enterprise. The overall plan is to develop competence frameworks for all the service providers to Asset Management;



Our business model is designed to help us achieve the corporate goal of being the preferred supplier wherever energy is demanded

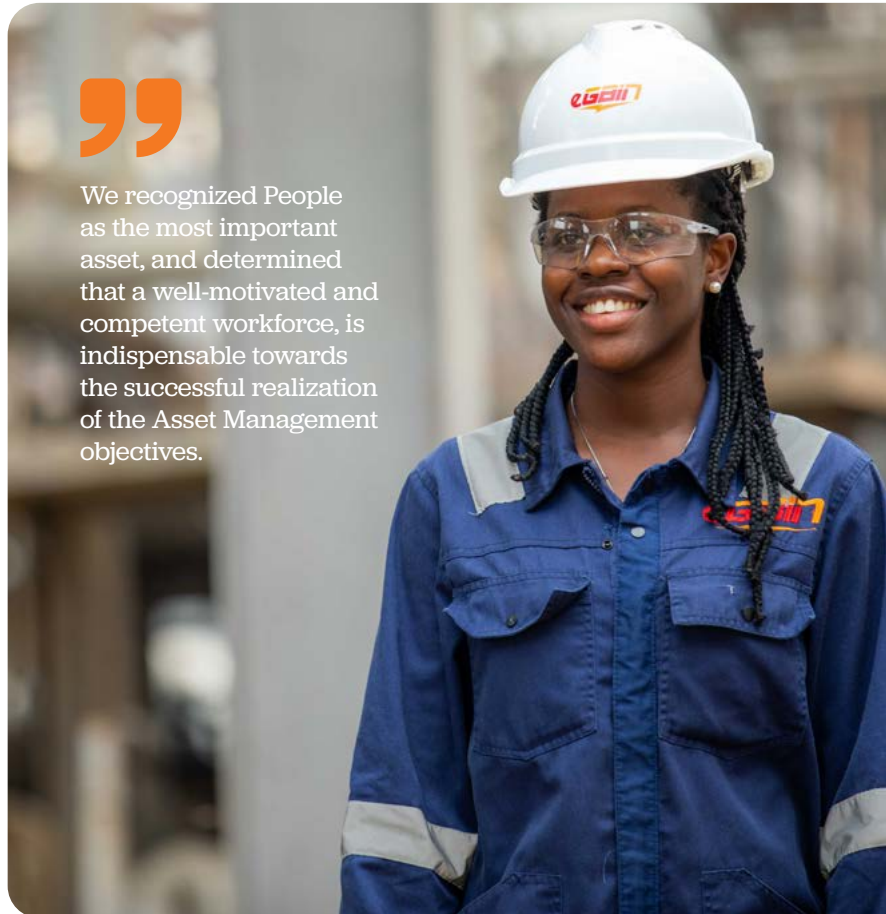


Improving Business Profitability of Operations and Maintenance at Egbin: A revamped Asset Management Perspective

The Asset Management function was established in Egbin Power Plc in April, 2019 to Manage, Operate and Maintain all the power plant assets, for the purpose of generating and exporting electrical energy, in a safe, profitable and sustainable manner, in compliance with legal and statutory requirements, in alignment with the company's vision to be the provider of choice where energy is consumed. Four Business Generating Centres (BGCs) were created that served as operating hubs for the Asset Management function.



We recognized People as the most important asset, and determined that a well-motivated and competent workforce, is indispensable towards the successful realization of the Asset Management objectives.



conduct skill audits at periodic intervals; develop and deploy costed learning intervention plans to close the competence gaps; to engender the provision of customer-centric, top-quartile services that supports the realization of Asset Management objectives.

The Asset Management team evaluated the Maintenance Departments as its most important service provider; and commenced a phased development of a Maintenance Framework, which will be deployed to safeguard the technical integrity of the power plant over its asset life cycle.

B. Process Improvement

As part of our Process Improvement Plan, we introduced monthly Asset Management Business Performance Reviews (AM-BPR), in addition to the already existing quarterly Board Management Information System Sessions. The monthly BPRs provide a platform for close range performance reviews as well as the exchange and application of Continuous Improvement initiatives, to improve the commercial and technical health of the plant.

In Q4 2019, we reviewed and reinforced Operator-Driven Reliability (ODR) which broadened the frontiers of Front-Line Maintenance (FLM) duties of the Operations Team. During the same period, we also launched Plant Start-up Reliability Improvement Programme, driven by the Operations team. These measures led to reduction in operational trips and improvement in plant reliability.

We also commenced preliminary engagements on Opportunity Framing and Opportunity Maturation for two of the most important service providers to Asset Management: Maintenance and Procurement Departments. The opportunities will identify and unlock inertia associated with maintenance and procurement processes. In preparation for this, the Asset Management team in 2019 prepared a Gap Analysis Report on Procurement Processes for Improved Effectiveness and Efficiency; this is at various stages of implementation.

Maintenance and Procurement Metrics will be introduced in 2020 as part of the Opportunity Programmes.

Equipment (Asset) Development: Asset Care Plan

In an effort to further improve the commercial and technical performance of the plant, the Asset Management team in 2019 developed a phased Asset Care Plan for the plant aimed at:

- » Reducing failure rate associated with operational trips
- » Improve Mean Time Between Failure (MTBF) of the generating units
- » Improving the reliability of the units

The major components of the phased Asset Care Plan are:

- » Lubrication Management
- » Revision of Maintenance Strategies: emphasis on Planned Preventive Maintenance

The Lubrication Management Plan will be executed in three phases:

1. Replacement of Turbine Lubricating Oils: 2019/2020
2. Optimization of Man-Management for Lubricating oil systems: 2020
3. Upgrade of Turbine Oil Purifier Drives: 2021

The replacement of turbine lubricating oil commenced in September, 2019 with Unit 3. Lubricating oil for the remaining four units is planned for replacement in 2020 (Unit 1 oil was replaced in 2018). The turbine oil drives will be upgraded in 2021.

Maintenance Strategies Review, which commenced in 2019, when completed, will entrench Preventive Maintenance culture in the enterprise. The Maintenance Strategies will be based on the principles of Risk and Reliability Management (RRM) which include Reliability-Centred Maintenance (RCM) and Risk Based Inspection (RBI). This will lead to significant reduction in plant reliability.

In liaison with Engineering and Technical Risk Department, Operational Reliability Improvement Process (ORIP), Root Cause Analysis (RCA) and other advanced maintenance diagnostics techniques will be introduced to analyse and manage asset availability and reliability with a view to develop improvement programs.

Other Activities

Other note-worthy activities that took place during the 2019 reporting year include:

a) Maintenance Inspections

Two Type A Inspections (ST- 4 and ST-5) were successfully executed in 2019. Mini-inspections were also introduced and integrated as part of Part C Major Overhaul. These maintenance interventions improved asset availability and reliability.

c) Technological Innovation

The Asset team, in liaison with the Information Technology (IT) team, commenced Conceptual Design for the development of online real-time access to essential plant parameters for the remote monitoring of plant performance. Front-End and Detailed Design will be finalized in 2020 for implementation.

e) Best Practices

Preliminary engagements with the respective service providers to Asset Management were held in 2019 for the introduction of industry best practices. The best practices will amongst other things, be used as benchmarks for minimum levels of service delivery.

b) Regulatory Compliance

The Asset Management team, through close supervision and effective stakeholder engagements with the HSE team, ensured that the environmental aspects of our power generation business were minimized in 2019. Air and effluent discharges were within regulatory limits. We also achieved statutory compliance with the Nigerian Electricity Regulatory Commission (NERC), Federal Inland Revenue Service (FIRS) and other regulatory bodies in our industry.

d) Stakeholder Management

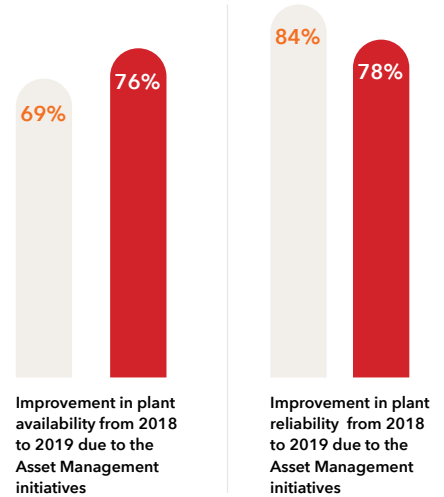
During 2019, the Asset team identified frameworks for effective management of all external stakeholders to the enterprise. Frameworks were also developed for internal stakeholder engagements. This is aimed at achieving effective communication with and obtaining stakeholder buy-in of our key activities.



30.80 %

Overall efficiency in 2019 based on the output/input method

Significant and Sustainable Improvements



The Asset Management initiatives introduced in 2019 led to improvement in plant availability to 76% in 2019 from 69% in 2018. Plant reliability also improved to 84% in 2019 from 78% in 2018. Overall electrical energy generated in 2019 was 3,786,239MWh. Significant and sustainable improvements in the plant's commercial and technical performance is expected in 2020 and beyond, when the afore-mentioned Asset Management initiatives are deepened and further consolidated. The overall efficiency in 2019 based on the output/input method of calculation was 30.80%.

Economic Sustainability

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Ownership Structure

Egbin Power Plc’s capital structure remained the same in 2019, with Sahara Group owning, through a Special Purpose Vehicle (KEPCO Energy Resources Limited), 70% of shareholding, Bureau of Public Enterprises (BPE) with 24%, and Ministry of Finance Incorporated owning the remaining 6%.

Economic Performance

2019 being an election year in Nigeria, witnessed a lot of activities, Nigeria’s GDP expanded by 2.2% with corresponding growth in population by 2.6%. The decline in Crude Oil prices from the budgeted benchmark of \$60/barrel in 2019 to an average of \$54.05 in 2019 and the continuous reduction in oil prices had a negative impact on Nigeria’s budget, which contributed to the instability of Naira.

Egbin Power Plc activated its Gas Sale and Aggregation Agreement (GSAA) in 2019 with Nigeria Petroleum Development Company Ltd (NPDC) which is an addition to the existing gas agreement with Chevron Nigeria Limited covering 145,000 Mmbtu of gas daily. This is tailored towards ensuring our survival in the power industry value chain. The GSAA with NPDC guarantees the delivery of 90,000 Mmbtu of gas daily, however the grid evacuation constraints persisted, with Egbin only able to generate an average of 398MW, a decline compared to the 495MW generated 2018.

The year 2019 recorded a decrease in revenue of about 14% to settle around N78.9bn (\$218m) in 2019, decrease from the revenue figures of N91.7bn (\$264m) recorded in 2018. The decrease in earnings is due to decrease in generation due to instability in the grid despite the stable gas supply and activation of NPDC GSAA. The conversion of Egbin’s financials to reporting currency USD (\$) was based on NAFEX rate (Nigeria Autonomous Foreign Exchange rate) at an average of N361.58/\$ in 2019 and 2018 an average of 346.99/\$.

An exchange gain (Net) of about N522Million that arose from revaluing

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 2019.

Cost of sales also decreased by 10% to close at about N77.3bn. The decrease in cost of sales was mainly due to decrease in generation. There was a retardation in performance, as a profit before tax of N3.66bn in 2018 shifted to loss before tax of N1.5billion in 2019. By the end of 2019, total assets had decreased to N375bn, 6.6% decrease from the revised figure recorded in 2018 due to continuous application of IFRS 9 adjustment on receivables, due to huge receivables from Market Operator, Nigeria Bulk Electricity Trading Plc (NBET) and others. We are working closely with our partners to ensure this does not jeopardise our sustainability in the short-term.



N398 MW

Average Power Generated

A decrease of 495MW generated in 2018



N375

Billion Total Assets

A decrease of 6.6% from the revised 2018 figures



N78.9 Billion

Revenue in 2019

N77.3 Billion

Cost of Sales

Down 10%, due to decrease
in generation

N3.66 Billion

Profit Before Tax

Down 10%, due to decrease
in generation

N1.5 Billion

Loss Before Tax

A shift from Profit before
tax in 2018

Organisational Supply Chain

In order to remain as the largest contributor of electricity to the grid, Egbin Power Plc has 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 this value created 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 not only are 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 duly assessed and covered.

Wholesalers

Chevron, NPDC and the Nigerian Gas Company (NGC) are our major wholesalers as they supply & transport the gas that is used as feedstock (fuel to boil water that produces steam) to power the turbines of our plant. In 2019, the activation of the GSAA with NPDC, and existing agreement with Chevron as at 2018 and the Gas Transportation Agreement with NGC since 31st October, 2018 improved gas supply stability from 2018 till date; however, the full impact of the gas contracts was not felt due to grid instability.

There is a guaranteed supply of gas to the plant, but we however hope that there will be stability in the grid in the coming year.

Offtakers

Through the PPA (Power Purchase Agreement) entered into between NBET and Egbin, NBET purchases bulk power from Egbin and resells the power to the distribution companies (DISCOs) according to demand, based on the vesting contract it



enters into with the Discos. NBET being the major customer of Egbin plays a key role in the success of the company. In 2019, NBET with the support of the Federal Government of Nigeria guaranteed an extended payment assurance of 100% of all GENCO invoices through a N600Billion Payment Assurance Guarantee Scheme. This improved the liquidity of the power industry as it covered 100% of current invoices (January, 2019 - December, 2019).

Eko Electricity Distribution Company (EKEDC) And Ikeja Electric (IE)

NERC approved the trade of excess power by Egbin in a bilateral contract with Ikeja Electric (IE) and Eko Electricity Distribution Company (EKEDC), from the energy generated by Unit 6 (with a capacity of 220 MW), which is supplied to the feeders designated by the DISCO parties.

It should however be noted that the



As an organization, we ensure that we create value at every level of our business operations



bilateral sales transaction with EKEDC was suspended in 2016, while we have maintained the transaction with IE till date. There is also an ongoing plan to sell part of the power generated from Unit 6 under the Eligible Customer scheme.

Consultants

Professional services are a very important aspect of the modern business environment. Egbin Power Plc is not lagging behind, as it has hired and retained the services of some of the most reputable consultants locally and internationally.

Towards ensuring that the integrity of our financial statement is maintained anywhere it is presented, Deloitte & Touché, one of the big four auditing firms was retained as the company Auditor for year 2019.

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 as stipulated by law & operational guidelines.

It is worthy of note that Pedabo Associates alongside Egbin's seasoned team achieved the approval of additional 2 years extension of the Pioneer status for the company.

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 in which we operate. In a bid to remain "Provider of choice wherever energy is consumed" we have partnered and are continually looking at partnerships that will deliver on our vision. As such we have partnered with vendors such as KEPCO, ORBIS and KPS to help manufacture various capital-intensive items over the period. Some of the key projects for 2019 was the construction of the Water-Intake Perimeter Fence and replacement of Emergency Diesel Generator (with capacity of 2 MW).

The total monetary value of payments made to our suppliers in 2019 was Over 60 Billion Naira.

External Charters and Organisations

Egbin Power Plc believes in maintaining full compliance with all regulatory requirements. As such, we ensured strict compliance with all relevant NERC regulations throughout 2019. In the reporting year, we maintained our membership within strategic associations such as the Association of Power Generation Companies; Operators of Electricity Industry; and Council for the Regulation of Engineering in Nigeria, which help support our business objectives. Also, in alignment with our global responsibilities as a company, we have adopted the 17 Sustainable Development Goals (SDG's) of the United Nations as essential tools for attaining sustainability.



We maintained our membership within strategic associations such as the Association of Power Generation Companies; Operators of Electricity Industry; and Council for the Regulation of Engineering in Nigeria, which help support our business objectives



A key project in partnership with our vendors in 2019 included the construction of Water-intake Perimeter Fence and replacement of Emergency Diesel Generator (with capacity of 2MW)



N60 Billion

Total monetary payments to suppliers in 2019

Stakeholder Engagement

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

The board meetings held in 2019 featured some salient issues ranging from the liquidity constraints due to huge receivables from NBET, Egbin expansion project, Staff welfare, overhaul of the plant 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 organisation, we interact with various groups of individuals and organisations. We have grouped our stakeholders into various categories based on the type of relationship with the organisation. Some stakeholders based on categories are listed below:

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

Shareholders



KEPCO Energy Resources



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 Corporation



Hitachi

Suppliers



Nigeria Gas Company



Chevron Nigeria Limited



Nigeria Petroleum Development Company (NPDC)



Pan Ocean Oil Corporation Nigeria



Drury Nigeria Limited



BRIGHTEST HOPE GROUP

Brightest Hope Company Limited



Rohluck Nigeria Limited



Hygeia HMO Limited



Express Cleaners

Prayer Reign 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

Customers



Nigeria Bulk Electricity Trading Company Limited (NBET)



Ikeja Electric



Halogen Security Company Ltd



KPS

ORBIS

Plant Availability and Reliability

Egbin operates six steam turbine-generators (ST) units. During the 2019 reporting year, the installation of ST1 generator transformer was completed and certified okay, thus, increasing the availability of the plant. Also, the vibration and bearing maintenance on ST3 was completed in the first quarter of the year.

To ensure continuous operation and reliability of the unit without breakdown, ST5 went on Type A inspection and Hydro-static testing in the month of December.

The availability of a power plant varies greatly, depending on the type of fuel, the design of the plant and how the plant is operated. The Asset Management initiatives introduced in 2019 led to improvement in plant availability to 76% in 2019 from 69% in 2018. The plant reliability also improved to 84% in 2019 from 78% in 2018.

In the reporting year, Egbin generated a total of 3,786,239 MWH, about 8% increment over last year's generation, with an overall efficiency of 31%.

The power generated by Egbin is traded in the energy market which is tightly controlled and regulated by the NERC. The process starts upstream with generating companies like Egbin, who then evacuate power to the transmission grid for further distribution to the power distribution companies, who in turn sell the power to end users/consumers.



3,786,239 MWH

Total Power Generated in 2019

An increase of 8% from 2018



31%

Overall efficiency



76%

Plant Availability

An increase from 69% recorded in 2018



84%

Plant Reliability

An increase from 78% recorded in 2018



To ensure continuous operation and reliability of the unit without breakdown, ST5 went on Type A inspection and Hydrostatic testing in the month of December.



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 stake holders. A breakdown of movement in value added is provided below:



N14.2 Billion
Value Added

decreased from N19.3bn in 2018 due to 20% increase in revenue in 2018 and exchange gain in Dollar Assets.



N64.6 Billion
Operating Expenses

marginal decrease from 2017 figures (N64.6bn 2019 vs. N72.2bn 2018)



N28%
Increase in Payment to Employees

from 2018



27%
Increase in Maintenance of Assets and Future expansion

from 2018



67%
Decrease in Payment to Government

from 2018



28%
Decrease in Community Investments

from 2018



N1.5 Billion
Loss before tax

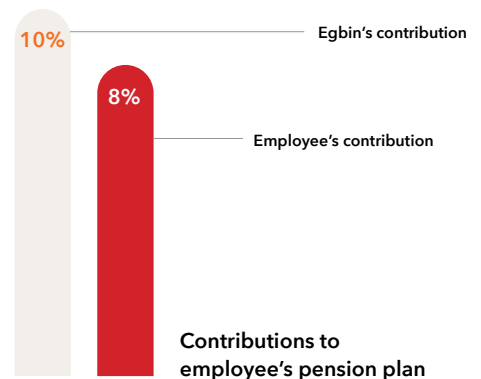
compared to a profit of N3,6bn before tax in 2018

Coverage of the Organization's Defined Benefit Plan Obligations

The legislation 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 deductions are carried out, as stipulated. A pension plan is mandated for every employee of Egbin with a minimum contribution of 8% de-

ducted from the employee's emolument, while Egbin, the employer, contributes a further 10%.

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



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 the Investment Promotion Council has demonstrated its support for the industry by approving the application for pioneer status which has availed us a five-year Company income tax holiday which leads to savings that will be reinvested into

the business to ensure sustainability, profitability and expansion of the generating Asset.

Although Egbin has successfully transitioned from a government-owned company to a private company, the government's interest is still very high in the business as the facility is widely considered as a national asset. As mentioned earlier above, the government's interest can be seen in the capital structure of the company with the government owning 30% of shareholding through the Bureau of Public Enterprises (24%) and Ministry of Finance Incorporated (6%).

Investment and Expenditure

Investment in Community Projects

At Egbin we believe that just as we are the beneficiary of the deed of the host community, we should give back their kind gesture with our good deeds through extensive personal and Corporate Social Responsibility (CSR) initiatives.

During 2019 reporting year, we have maintained the supply of uninterrupted power from the plant as well as medical outreaches which involved the distribution of mosquito nets as part of our anti-malaria campaign, eye screening, distribution of free eye glasses, free eye surgeries, provision of sickle cell drugs and general consultation with over 500 beneficiaries from the host communities.

We also invested in the welfare of the host communities through donations to schools, hospitals & scholarships to indigenes of host communities. Egbin has constantly been looking for ways to give back to the communities to ensure that it is not only a profitable business, but also a sustainable business for future generations to come.



500

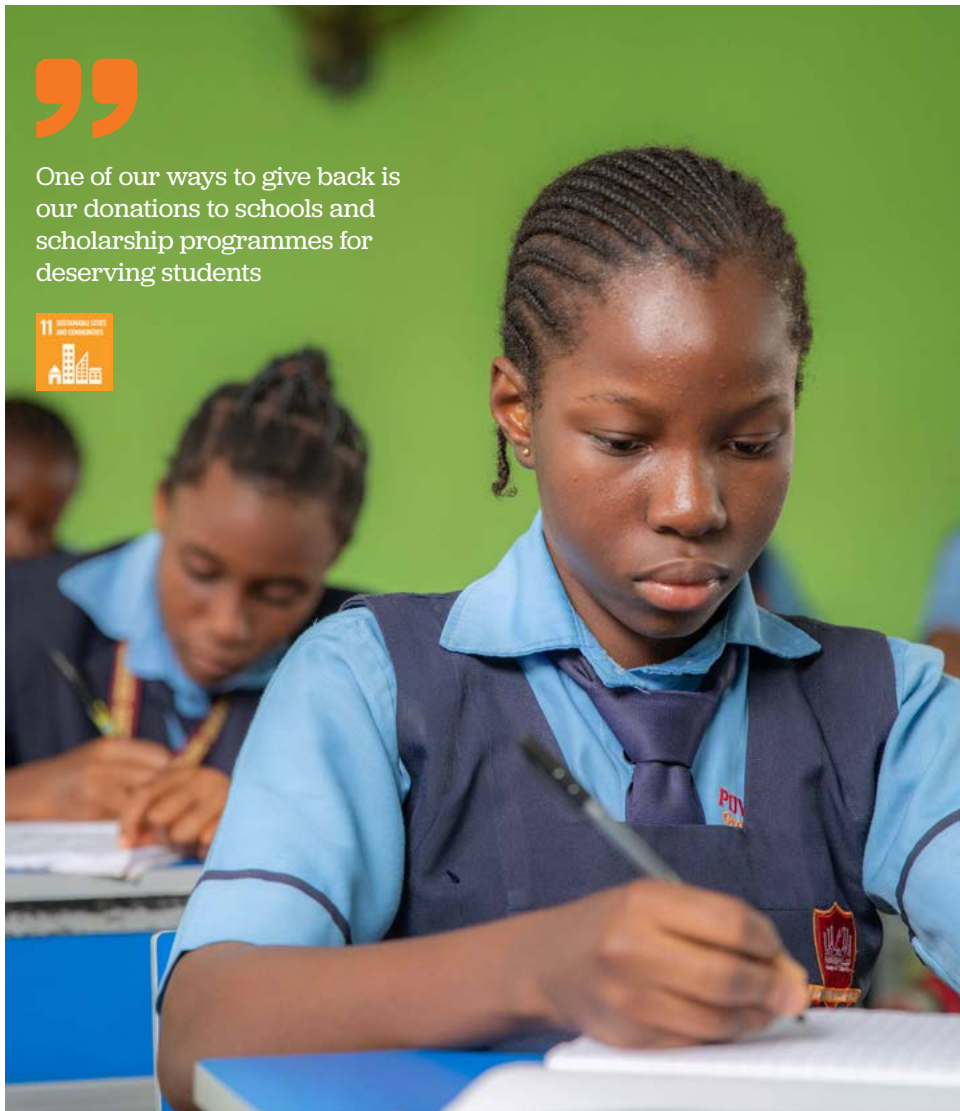


Health Beneficiaries

in our medical outreaches, including eye screening, glasses and surgeries, provision of drugs and health consultation



One of our ways to give back is our donations to schools and scholarship programmes for deserving students



Investment in Human Capital, Safety and Environment

At Egbin, we understand the importance of human capital enrichment because our human capital is a critical component of our organisation’s competitive advantage. Therefore, the training support and development of employees are core priorities for ensuring an efficient workforce.



We have integrated a formal learning process into the workday activities as well as systematic talent management in the areas of internal knowledge sharing.



S/N	Name of Training	Date of Programme	Location of Training	Number of Participants	Name of Trainer
1	Training on Grid Code	January 14, 15, 16, 17, 2019	Egbin	56	Egbin Power Plc.
2	How to Calculate Your Income Tax: Egbin X-Change	January 23, 2019	Egbin	230	Egbin X-Change
3	Egbin Ask The Expert	January 29, 2019	Egbin	154	Egbin Power Plc.
4	Training/Meeting on Maintenance of CT and CVT Transformers	January 28 30, 2019	India	2	
5	Topic: Aligning Egbin Operations with NCC Oshogbo on Grid Control and its Effects on Electricity Generation	February 20, 2019	Egbin	230	Egbin X-Change
6	Managing your Personal Career	March 20, 2019	Egbin	230	Egbin X-Change
7	Training on High Voltage Switch Board And P&ID	March 11-13/14-16 [2 Batches]	Egbin	40	Hodskey Consulting Ltd.
8	Maintenance Submit: Technology- A Tool for Value Creation Through Maintenance	April 8-9, 2019	Port Harcourt	3	11 Plc [Formerly Mobil Oil Nig. Plc]
9	Training on the Calibration of The Gas Chromatograph	April 9, 2019	Port Harcourt	2	Prime Atlantic Global Instruments at FIPL



10	The Roles and Responsibilities of Employees in Maintaining Safe Work Environment	17-Apr-19	Egbin	230	Egbin X-Change
11	The Art of Employee Engagement	April 4-5, 2019	Lagos	1	Hr Expo Africa
12	The Art of Employee Engagement	April 4-5, 2019	Lagos	1	Hr Expo Africa
13	CITN Tax Conference	April 23-26, 2019	Abuja	1	CITN
14	NIPR Annual Conference /AGM	May1-3, 2019	Abuja	1	NIPR
15	Training on Work at Height and Rescue	May 6-7, 2019	Egbin	20	JC International Ltd.
16	Training on Work Inside Confined Space	May 8-9, 2019	Egbin	15	JC International Ltd.
17	Power Generation Commerce for Asset Managers	May 7/16/21, 2019	Egbin	3	In-House
18	Professional Facilities Management Training	June 16-19	Lagos	1	Alpha Mead Training Centre
19	Training on Mastering People Development Leadership for Managers	June 17-19/24-26, 2019	Egbin	60	Right Selection Ltd
20	Standard Protection Code for Technical Staff	June 17-18/20-21/27-28/ July 1-2, 2019	Egbin	90	Energy Training Centre
21	Standard Protection Code for Technical Staff	July 1-2, 2019	Egbin	30	Energy Training Centre
22	Training on Lean Six Sigmas [Green Belt]	June, 2019		3	
23	Training on Media and Communication	July 24-26 2019	Pan African University Ibeju- Lekki	1	Pan African University Ibeju- Lekki
24	Training on Syncrest Energy Restructuring Bankable Project Within the Eligible Customer Regime	June 20-21, 2019	Lagos	5	Syncrest Energy & Gas
25	Training on Heat Exchanger Design Performance Inspection and Operation	June 24-26, 2019	Warri	2	O-Secul Training Centre Warri
26	Maintenance Strategy Development and Cost-Effective Implementation	June 24-26, 2019	Warri	2	O-Secul Training Centre Warri
27	Meeting on Sensitization of Key Players in The Power Sector on Sector Skills Council By ITF	July 2, 2019	Abuja	2	ITF
28	Training Reimbursement Seminar	July 3-4, 2019	Lagos	2	ITF
29	Training on Micro Soft Suite for Business Professionals	July 5-6, 2019	Lagos	1	Dawib Associates Ltd.
30	Training on New Approach to Document Control and Record Management	July 1-5, 2019	Lagos	1	Tom Associates
31	Reverse Osmosis & Iron Exchange Resin Application	July 9, 2019	Lagos	4	Lanxess Energizing Chemistry/Freshfons

32	International Power Engineering Conference [IPECON 2019]	July 15-18	Abuja	2	IPECON
33	Business Analysis Essentials for HR Leaders	July 6-7/13-14 2019	Lagos	1	Certification Edge
34	Maintenance and Reliability Best Practices: Lowering Life Cycle of Equipment.	July 22-26,2019	Warri	1	O-Secul Nig. Ltd
35	Vibration Analysis and Predictive Maintenance	July 22-26,2019	Warri	2	O-Secul Nig. Ltd
36	Business Analysis Training	July 22-24, 2019	Lagos	1	JK Michaels
37	Workshop on Boiler (Operation, And Maintenance)	8-10 July	Lagos	2	NAPTIN
38	High Pressure [Argon] Welding	July 15-Sept.20, 2019	Lagos	4	Skytraine Ltd.
39	Business Writing and Communication	July 8-10/15-17, 2019	Egbin	60	HC Bonum
40	Advanced Competency Management	July 23-25	Lagos		CIPM
41	Egbin Brand and Corporate Identity - Guide to Doing It Right/PCSR.	July 24 2019	Egbin	230	Egbin X-Change Programme
42	Process Safety Engineering	August 13-16, 2019	Lagos	2	DM Sheffield Ltd
43	Powerful Leadership Communication and Influence Management	August 19-23, 2019	Lagos	1	Tom Associates
44	Leading HR Strategic Interventions	August 27-28, 2019	Lagos	1	CIPM
45	2019 COREN Engineering Assembly	2019	Abuja	3	COREN
46	Training on Gas Turbine Operation, Maintenance and Management	August 26-30, 2019	Warri	2	O-Secul
47	Training on Diagnostic, Testing and Maintenance	August 26-30, 2019	Warri		O-Secul
48	Training on Succession Planning and Career Planning	August 29-30, 2019	Lagos	1	CIPM
49	Training on Financial Statements	August, 2019	Lagos		Assurance Success Point Associates
50	Microsoft Exchange [Module 1]	September 2-6, 2019	Lagos	1	New Horizon
51	Training on ROI in HRM	September 26 27, 2019	Lagos	1	Dawib Associates Ltd.
52	Training on Tax Practices	September 4-5, 2019	Lagos	1	ICAN
53	Workshop on Management of Used Oil and Oily Waste	September 20, 2019	Lagos	1	LASEPA
54	Training on Flue Gas Analysis and Testo 350 Gas Analyzer	September 9-13, 2019	Lagos	1	LASEPA
55	The Future for Egbin Power Plc - A Presentation by GEPS	September 18, 2019	Egbin	230	Egbin X-Change



56	Raining on Mechanical Seals, Design Application Selection Installation, Trouble Shooting and Maintenance.	September 23 - 27, 2019	Warri	2	O-Secul Nig. Ltd
57	Maintenance and Reliability Best Practices: Lowering Life Cycle of Equipment.	September 23 - 27, 2019	Warri	2	O-Secul Nig. Ltd
58	Rotating Equipment Reliability Optimization	September 24 - 27, 2019	Lagos	1	AETI
59	Comprehensive Financial Modelling and Financial Planning	September 23-25, 2019	Lagos	1	Urbbizedge
60	Training on Engagement and Employee Relations	September 23-27, 2019	Lagos	1	Core Trainers
61	Training on IFRS	September 23-26, 2019	Lagos	1	Data Migrate
62	Workshop on IFRS and Financial Reporting for Sahara Group	September 27-28, 2019	Lagos	1	Sahara Group
63	Workshop on Scoping Development on PR	September 24-26	Egbin	36	Audit
64	Training on Pre-retirement	September 24-26	Lagos	28	Tom Associates Training
65	CIPM Conference	October 22-24, 2019	Abuja	3	CIPM
66	Training on HR Metrics and Analytics	October 15-16, 2019	Lagos	1	Dohoney Services Ltd
67	Training on Putting Data on Work	October 8-11, 2019	Lagos	2	Tom Associates Training
68	Training on Technical for Non-Technical	October 7-11, 2019	Lagos	3	National Power Training Institute
69	SAP Plant Maintenance Training	October 14-17, 2019	Lagos	1	
70	Training on Vendor and Contract Management	October 22-25, 2019	Lagos	1	Philips Consulting
71	Training on Treasury and Risk Management	Oct. 17-19, 2019	Lagos	1	Dawib Associates Ltd.
72	Workshop on Logistics Supply Chain	Oct. 28-Nov. 1, 2019	Lagos	2	NIM
73	Training on Corporate Fleet Management	November 5-8, 2019	Lagos	1	Alpha Partners
74	Excellence in Warehouse and Inventory	November 5-8, 2019	Lagos	2	Alpha Partners
75	Risk-Based Auditing Training	November 5-8, 2019	Lagos	2	FITC
76	Advanced Purchasing and Tenders Management	November 5-8, 2020	Lagos	2	Alpha Partners
77	Understanding the Procurement Management Principles	November 19-22, 2019	Lagos		Alpha Partners
78	Advanced Data Analytics Simplified for Process/Financial Analysis	November 25-29, 2019	Lagos	1	CMD

79	Account Receivable Training	November 19-21	Lagos	1	Dawib Associates Ltd.
80	Excellence in Warehouse and Inventory	November 19-22, 2019	Lagos	2	Alpha Partners
81	Nate Conference/AGM	November 13-15, 2019	Minna	1	NSE
82	Training on Project Management	November 25-29, 2019	Egbin	26	Harrybaker
83	HSE Losh Managing Safely	November 12-15, 2019	Egbin	28	Kevron
84	Business Writing and Communication Batch 1	November 12-14, 2019	Egbin	30	HC Bonum
85	Egbin Ask the Expert Version 3.0	November 20, 2019	Egbin	178	Egbin Team
86	Risk-Based Auditing	November 4-8, 2019	Lagos		FITC
87	Advanced Audit and Internal Control	December 2-6	Lagos	1	FITC
88	Strategic Procurement and Vendor Management	December 10-13, 2019	Lagos	2	
89	NSE Conference/AGM	December 2-6, 2019	Kano	4	NSE
90	Business Writing and Communication Batch 2 & 3	December 2-4, 9-11, 2019	Egbin	60	HC Bonum
91	Project Management	December 25-29, 2019	Egbin	26	Harrybaker

Egbin Power Plc also organises sporting events, health walks and talks to enable the staff maintain good personal health and fitness of body and mind. During the year 2019, all applicable safety and environmental levies were paid to the appropriate regulatory bodies.

Furthermore, Egbin ensures its compliance with the policies laid down by Lagos State Environmental Protection Agency (LASEPA) and National Oil Spill Detection and Response Agency (NOSDRA). Proof of our excellent track record can be seen from our consistent history of zero fines or sanctions from the regulatory agencies in charge of environmental protection.

Supply Chain Management

Egbin 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 in order to boost the business performance of the organization. As a way to encourage technology advancement in the country, Egbin prioritises local sourcing of services, spares and replacement parts. The company sources for services and spares internationally only when they are not readily available locally.

Egbin power Plc operates a transparent supply chain which creates a sustained value from the point of origin (i.e. suppliers) to the user department. The process involves planning, execution, control, and

monitoring of supply-chain activities with the core objective of creating value, which is done by synchronizing supply with demand and measuring performance based on global standards.

Egbin Power Plc depends on its key suppliers and the third-party providers, locally and internationally, for the supply and maintenance of equipment and services that is needed by the company towards meeting its objectives. Owing to the fact that a number of critical and high precision equipment are not manufactured in Nigeria, 80% of the suppliers are based in Nigeria whilst others are based in outside the country. The total number of suppliers engaged during the period under review is 270, which consist of suppliers from Nigeria, Japan, South Korea, Canada, USA and United Kingdom.



270

Total Number of Suppliers engaged in 2019

80%

Suppliers based in Nigeria



”

As a way to encourage technology advancement in the country, Egbin prioritises local sourcing of services, spares and replacement parts.



Environmental Sustainability

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Environmental sustainability has been a fundamental part of our business operations at Egbin. Being the largest power plant in Nigeria, we are conscious of the impact of our business on the environment and take a proactive approach in managing environment and safety issues.

Our environmental management approach, driven by an Environmental Management System, is focused on protecting natural resources, minimizing waste and reducing pollution. This guides the formulation and implementation of sound policies in health, safety and environment. In 2019, Egbin made qualitative and quantitative improvements to the environmental management support processes through the introduction of employee training and awareness, compliance assurance processes, and corrective/preventative action programs.

Over the years, the Company has maintained strict compliance with both local and international laws and regulations guiding the environmental impact of its operations, some of which include the Nigerian Electricity Regulatory Commission Health and Safety Code and the Factories Act of 2004. Our compliance level is actively monitored and ascertained by industry regulators such as Lagos State Environmental Protection Agency (LASEPA), National Oil Spill Detection and Response Agency (NOSDRA) and Federal Ministry of Environment.

As a member of the British Safety Council, we are positioned to actively monitor, identify and address safety and environment concerns. Egbin is committed to the continuous improvement of its environmental sustainability performance and has invested significantly in technologies to improve the conservation of natural resources and ensure the reduction of environment pollution.



Over the years, the Company has maintained strict compliance with both local and international laws and regulations guiding the environmental impact of its operations



Water Utilization

Water is critical to electricity generation process in a steam power plant as it is required for multiple purposes. Besides the production of high-energy steam for power generation, water is required for other important functions within the electricity generation process. Egbin Power Plant requires water in very large quantities as a heat sink in the steam thermal electricity generation process and also to condense the steam turbine exhaust steam. Water is also needed for cooling the process equipment (closed and open circuit cooling) industrial cleaning, and firefighting in the case of fire emergencies.

The main source for steam generation, firefighting and potable water is ground water withdrawn from six underground wells while surface water from the lagoon is used for process cooling. As continued availability of water is critical to Egbin's operations, we ensure efficient water management to reduce the effects of our water mining activities on the environment.

In 2019, we continued to monitor and account for the amount of water withdrawn from our six deep wells through the use of flow totalizers at the discharge of the wells. 947,113tons of groundwater was extracted in 2019. Though this represents a 20% rise in volume from the previous year, we ensured that water flow through the generation process cycle was optimized in order to minimize our impact on natural resources. Flow meters and totalizers are provided in each of the six generating units to measure instantaneous and periodical water flow for performance tracking and record purposes. Data from such performance tracking are used to improve operational processes. In 2019, for the total electricity generated, 689,379tons of demineralized water was consumed as make-up. This represents a 3.3% increase from 2018's consumption.

The water quality required in the steam electricity generation process is as important as the quantity required, as poor water quality will lower the efficiency of the heating process, and inadvertently lead to equipment breakdown. High enthalpy steam is produced by heating chemically conditioned water in a boiler, therefore the quality of water which is supplied into the boiler is important. The boiler feedwater used in the steam boiler is used to transfer heat energy from the burning fuel to the mechanical energy of the spinning steam turbine.

In the process of electricity generation, water (in the form of liquid or steam) traverses a thermal cycle, losing some of its mass along the way owing to operations that involve venting and draining, and occasional leaking. Freshly treated water

”

As continued availability of water is critical to Egbin’s operations, we ensure efficient water management to reduce the effects of our water mining activities on the environment.

is provided continuously to make up this depleted water mass. Each generating unit is equipped with a capable Sampling System to monitor real-time, water quality at various points in the cycle. This sampling panel is used in combination with a water analyser equipment for analysis on chemical parameters like Conductivity, pH, Dissolved Oxygen, Silica and Sodium.

To ensure high purity of the water used for generation, several specialty chemicals are used in treating and conditioning process water. Water is treated through 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 2019, 6,550Litres of 25% stock concentration Ammonia (NH₃) and 1,200Litres of 80% stock Hydrazine (N₂H₄) were used in conditioning boiler water. Both recording a 25% and 48% drop



The dimineralized processing plant

947,113 tons

Underground water extracted in 2019

a 20% rise in volume from 2018



689,379 tons

Dimineralized water consumed

a 3.3% increase from 2018's consumptions

6,660 Litres

of 25% stock concentration of NH₃ used in conditioning boiler water

1,200 Litres

of 80% stock concentration of NH₃ used in conditioning boiler water

Waste Management

Waste management is the collection, transportation, processing, treatment, and disposal of waste in a way that will not cause harm to humans and the environment. Waste materials are either liquid or solid in form, and their components may be either hazardous or inert in their effects on health and the environment.

Poor management of waste can lead to an epidemic and a negative health impact on the community and those within the location. Given the nature of the operations of Egbin Power Plc, waste management is of great importance as such we aim to reduce the amount of waste we generate and to reuse and recycle materials where possible. The categories of waste generated are mainly garden waste, metal scraps, burnt electrical bulbs, food wastes, wastewater and gaseous waste (CO, CO2).

Wastewater is channelled through sewage systems where it undergoes wastewater treatment or sewage treatment. This process removes all of the impurities from wastewater or sewage, before it mixed with the water body.

All non-hazardous waste generated in the plant are disposed through Lagos State Waste Management Authority (LAWMA) vendors, who are responsible for the disposal of waste from both at the plant and the residential estates at government approved dump sites and in accordance with approved practices. In the year 2019, about 18 tons of domestic waste was evacuated from the housing estate and the plant weekly.

The types of waste generated during the operation of the power plant are further explained below:

Solid Wastes

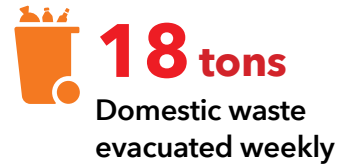
Solid waste are useless and unwanted products in the solid state derived from human activities and discarded by society. Egbin power plant generated and evacuated 416 tons of solid wastes from the plant in year 2019. These waste materials are produced from the Egbin plant facility and disposed on a weekly basis. In compliance with environmental regulations, the

Lagos State Waste Management Authority (LAWMA) are granted access to the plant facility periodically to evacuate the waste that may have been generated.

Hazardous Wastes

Hazardous wastes are waste products which pose a present or potential hazard to human health or living organisms because of its non-degradable or lethal nature. In Egbin will deals with minimizing harmful effects on humans and environment by applying special techniques of handling, storage, transportation, treatment, and disposal of hazardous wastes.

Some of the hazardous wastes generated are used lubricants, waste oil for cooling purposes, and printer cartridges, acid and caustics sludges etc. Zero ton of hazardous waste was neither transported, imported, exported nor treated in the year 2019. However, hazardous wastes have to reach some 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 approved dump site. No hazardous waste was transported internationally in 2019 because Egbin Power Plc does not transport any hazardous wastes beyond the shores of Nigeria.



Oil Spill Management

Egbin has in place an oil spill management plan to prevent and address operational spills. Our spill management is centred on the prevention of spills through good planning, design, implementation and operation. It also covers oil waste minimization, classification, segregation, storage, transportation, treatment and final disposal.

Egbin power plant was designed with the alternative of being fired with natural gas or heavy fuel oil. The heavy fuel oil, which is a fossil fuel can have a negative impact on the environment if not properly managed. While natural gas is primarily used in the plant for power generation, adequate measures are nonetheless put in place to guard against spills, where heavy fuel oil is used. The plant also uses T-32 grade oil for the lubrication and cooling of the turbine auxiliaries.

In the event of spill there is an emergency response procedure as well as a dedicated team to ensure efficient and effective containment. Egbin personnel and contractors are equipped and trained to respond to certain “minor discharges” confined within the facility. Minor discharges can generally be described as localised discharges of a small quantity that can be easily stopped and controlled, and are unlikely to seep into ground water or reach surface water or adjoining shorelines. For our oil spill response plan there are line of responsibilities in the management of a spill; Egbin maintains primary responsibility for providing initial response to oil discharge incidents originating from the facility. The CEO assumes responsibility for overall safety and environmental protection matters in the facility while the Safety Manager is the incident commander who leads and coordinates the response action of the field responders to ensure that the spill is controlled.

In year 2019, no spill was recorded within the power plant, therefore 0% spill activities occurred on soil and water surfaces with respect to oil spills on soil and water surfaces, fuel spills and spills of chemicals.

Egbin has in place an Oil Spill Contingency Plan, which has been approved by

the Federal Ministry of Environment, the National Oil Spill Detection and Response Agency and the Lagos State Environmental Protection Agency. The Company's operations in 2019 complied with regulatory requirements and best practices on environmental management. Additionally, the company did not record any sanction for non-compliance with the environmental laws and regulations in the year 2019.



In the event of spill there is an emergency response procedure as well as a dedicated team to ensure efficient and effective containment



Zero oil spill recorded in 2019

Effluents Quality Control

Untreated wastewater effluents are toxic to plants and animals, including humans and pose negative impacts on the environment. The major contaminants in wastewater effluents that have adverse effects on both human health and the environment are nutrients like nitrogen, phosphorus, heavy metals, hydrocarbons, organic matter, microbes and endocrine disruptors.

Effluent discharges include wastewater from the condensation of saturated steam in the condenser and also waste water from extracting heat from the closed circulating water coolers. The cooling water is mainly sourced from the lagoon. About 900 million m³ of water was used in power generation processes.

At Egbin we remain committed to minimizing our operational footprint on the environment as such, we ensure that all the effluents from our operational processes which are discharged back into the neighbouring Lagos lagoon pose no danger to aquatic life or threaten the lagoon's ecosystem in any way.

Wastewater from several operations in Egbin typically does not require treatment of any kind. The variance is only in the temperature of the lagoon water after the cooling process which is higher compared to intake, but by the design of the Egbin power plant, the water discharges through the canal for the water temperature to regain back its initial temperature before getting in contact with the body of water.

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 a 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 the preservation of aquatic life.

The unit condensate polishing plants and the station's water demineralization plant are provisioned with the capability to neutralize wastewater before discharge. The Neutralization process maintains

wastewater pH at neutral levels, similar to that of the lagoon. In 2019, wastewater from the demineralization plant and the unit Condensate Polish Plant (CPP) was estimated at 72,763 tons with an average pH value of 7.8. These values were derived based on the 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.

Routine quantitative analyses are carried out on wastewater from central discharge stations as well as source surface water. Other monitored parameters include; conductivity, total dissolved solids, dissolved oxygen, Chloride level, total water hardness and total Iron. The quality of water is usually taken from various points before discharge and is treated based on results of analysis carried out on the samples taken, to meet standards which are safe for aquatic life and other industrial processes and environmental standards. In 2019, typical wastewater quality displayed minimal variation to source water and all metrics fell well below obligatory limits.

As a responsible organization, Egbin engages a reputable consultant to conduct monthly air quality and effluent monitoring exercise. This provides a third-party opinion in addition to the analysis report from our Chemistry Department. In determining the quality of water utilised during the reporting year, multiple methods, some of which include physico-chemical analysis and microbial analysis, were used in compliance with guidelines by the Lagos State Environmental Protection Agency (LASEPA) and the National Environmental Standards and Regulations Enforcement Agency (NESREA).

For physico-chemical analysis, the methods used were potentiometric, gravimetric, titrimetric, turbidimetric, argentometric, methylene-blue atomic absorption and spectrometry methods. For microbiological analysis, lactose fermentation technique and pour plate method were used. The above methods are described in details in the handbook "STANDARD

METHOD FOR THE EXAMINATION OF WASTE AND WASTE WATER" 20th Edition, 1998. (Prepared and published by the American Public Health Association (APHA), American Waste Works Association and Water Environment Federation (WEF).



As a responsible organization, Egbin engages a reputable consultant to conduct monthly air quality and effluent monitoring exercise. This provides a third-party opinion in addition to the analysis report from our Chemistry Department.





900 million m³

Water used in power generation from the lagoon



72,763 tons

Waste water from the demineralization plant and CPP



7.8

PH of waste water

Energy Consumption and Emissions

Direct Greenhouse Gas (GHG) Emissions

Emissions of greenhouse gases from combustion of fossil fuel are associated with the global warming of Earth's climate. Scientists attribute the reality of global warming to increased quantities of greenhouse gases, primarily carbon dioxide, and other greenhouse gases into the earth's atmosphere. The gases trap heat within the atmosphere, which can have a range of effects on ecosystems, including rising sea levels, severe weather events, and droughts that render landscapes more susceptible to wildfires.

The cause of this unusual increase in atmospheric greenhouse gases, particularly over the last century, has been pinned on human activities. Primarily, the burning of fossil fuels and subsequent atmospheric release of gaseous products of such combustion. The process of electricity generation in a steam thermal plant involves the combustion of fossil fuels in a boiler to generate heat. In our process, natural gas is the fossil fuel used.

Natural gas is relatively "better" for the environment compared to other fossil fuels such as coal and fuel oil. It is the cleanest fossil fuel energy source available, leaving no particulate matter, and producing nearly a third less carbon dioxide than coal and almost half less than fuel oil when burned. Our natural gas source is also free from oxides of sulphur making it more eco-friendly. These favourable features of natural gas together with routine qualitative and quantitative analysis of boiler stack emissions to streamline and optimize boiler operations are the main ways Egbin mitigates the effects of fossil fuel combustion on the environment.

Emission of air pollutants in Egbin refers to flue gas and its constituents as the products of our consumption of carbon-containing fossil fuel. Flue gas analysis are conducted on 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 the

safety of the environment.

In 2019, CO₂ emissions from the combustion of natural gas for power generation was 2.16 million metric tons. The Greenhouse gas (CO₂) emission fell to 2.16 million metric tons in 2019 from 2.56 million metric tons in 2018. This amount was calculated based on complete combustion using stoichiometric quantities.

In recent years, in line with sustainable efforts to protect the environment, various "Go Green" initiatives have become a staple in Egbin. One of such initiatives is the "Tree Planting Drive" which was sustained from the previous year, as afforestation is a proven counter measure to the effects of greenhouse gas emissions.

Indirect Greenhouse Gas (GHG) Emissions

An aspect of greenhouse gas emissions in this category is tied directly into that already reported for scope one. This is because a portion of the electricity generated for sale serves the indirect electricity, heating, steaming, cooling, and other utility needs of the premises. 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 of 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.

Other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity. The aspects of Natural gas used for production of electricity are out of the company's sphere of control. Nigerian Gas Company (NGC) processing the natural gas we buy for our electricity generation. The nature of emissions is indirect and excluded from the company's sphere of control. But we are confident that the Nigerian Gas Company, a sub-



2.16 million metric tons

CO₂ Emissions generated in 2019

a 16% reduction from the emission levels of 2.56 million metric tons in 2018

0.5703t

CO₂ per MWH

85.9ppm

Average composition of NO_x in stack emissions

a 19% reduction from the value recorded in 2018



subsidiary of the Nigeria National Petroleum Corporation (NNPC) is strongly committed to preserving the environment and is all for adhering strictly to environmental regulations.

In 2019, the company's commitment to staff members' physical wellbeing and its sustained drive to go green birthed the Walk-to-Work initiative once every month,



In line with sustainable efforts to protect the environment, various “Go Green” initiatives have become a staple in Egbin.

Staff of Egbin planting a tree as part of our “Tree Planting Drive” initiative, our afforestation methods to counter the effects of greenhouse gas emissions

all staff members execute usual commute to, within and from work entirely on foot. The year in review also saw a marginal increase in cycling as these are non-combustive means of transport, car-pooling for regular daily commute and as well as mass transit of staff members to and from work. These are some of the measures Egbin has put in place to mitigate the emissions.

The greenhouse gas emissions intensity, reported as the absolute CO₂ emissions from natural gas combustion relative to the intensity of power generated (MWh) in 2019, is 0.5703t CO₂e per MWh. The Organization-specific metric (the denominator) used - total MWh of electricity generated in 2019.

Reduction of Greenhouse Gas (GHG) Emissions

The threat to the environment from the burning of fossil fuels continues to be an issue all over the world. Approximately 40% of global CO₂ emissions are emitted from electricity generation through the combustion of fossil fuels to generate heat needed to power steam turbines. Burning these fuels results in the production of car-

bon dioxide (CO₂)—the primary heat-trapping, “greenhouse gas” responsible for global warming.

Asides greenhouse gases, other substances such as oxides of Sulphur (SO_x) and nitrogen (NO_x), smoke, particulate matter and other hazardous substances are released into the atmosphere. Increased amounts of Sulphur oxides (SO_x) and nitrogen oxides (NO_x) in the atmosphere leads to the formation of acid rain. Acid rain adversely damage the forests through acidification of soil, depletion of soil nutrients, and direct injury to sensitive tree leaves and needles and gradually deteriorates human property. The pollutants that cause acid rain SO₂ and NO_x, as well as sulfate and nitrate particles are in the air, they can be harmful to humans. SO₂ and NO_x react in the atmosphere to form fine sulfate and nitrate particles that people can inhale into their lungs. Increased quantities of smoke and particulate matter reduce air quality and pose immense risk to human and animal health as well as causes the formation of smog that reduces visibility and impedes human activities. NO_x emissions also contribute to ground level ozone, which is also harmful to human health.



Natural gas remains the cleanest fossil fuel which releases the lowest quantities of NO_x and SO_x per weight when compared to coal and fuel oil. Properly combusted natural gas releases zero smoke and particulate. The year 2019 recorded a 16% CO₂ emission reduction and a 3.5% drop in greenhouse gas emission intensity from the previous year.

At Egbin, data from routine qualitative and quantitative analyses of stack emissions from unit boilers is processed and used to improve boiler operation to ensure proper combustion. The absence of sulphur in the natural gas burned in our boilers eliminates the release of sulphur oxides. All this ensures that significant emissions remain well below obligatory environmental limits.

The average composition of NO_x in stack emissions in 2019 was recorded as 85.9ppm, which represents a 19% reduction from the value recorded for 2018.

Water Management and Conservation

Egbin is bordered to the south by the Lagos lagoon which is home to a diverse species of aquatic life; to the north and east by a forest which offers a diverse set of habitats for plants and animals; and to the west by the host community, Ijede.



Biodiversity is of grave importance to us at Egbin. We combine science and knowledge of our local communities to enhance our understanding of the biodiversity of the lagoon and the air around us. This is to ensure that our operations have next to no impact on marine and avian lives in the environment that surround us.

The aquatic ecosystem around Egbin is habitat to a variety of biota. Studies have been carried out in and around Egbin Power Plc. showing different species of wildlife. The Lagos lagoon is estimated to be 6354.708sq km in area and 285km in perimeter. It provides surrounding communities a viable fishing and aquaculture industry as well as sand mining and dredging, logging and shipping, recreation, tourism and inland waterways transportation. Numerous scholars and researchers posited that the lagoon is periodically inhabited by fish species of fresh water and marine origins, recording a total number of eighteen fish species in their study. Others went further to survey and discover a range of mangrove species, molluscs, oysters, crustaceans and a variety of fish fauna.

We understand the adverse impact climate change has on biodiversity, which results in a loss of species or migration, and so we strive to tackle emissions which are a major contributor to climate change. Preserving the habitat of these species is of great importance to us and our relationship with the host community.



Environmental Impacts on Transportation

The transportation activities of Egbin majorly involve the movement of supplies and people for operations at the plant. We recognise that these activities have environmental impacts ranging from noise pollution, to air pollution and climate change.

At Egbin Power Plc, we have taken steps and developed initiatives to control the environmental impact of our

transportation activities. Majority of the workforce reside in the residential estate which is in close proximity to the plant and staff buses are provided for the commute to work to reduce the level of vehicular activity. A “Walk to Work Day” initiative was also introduced to raise awareness and encourage environmental consciousness with respect to transportation activities.



Occupational Health and Safety

Egbin places the highest priority on health and safety of the workplace. Our Occupational Health and Safety (OHS) management system incorporates policies, systems, standards, and activities to prevent occupational risks at the workplace. This improves our ability to continuously identify hazards and control risks at the workplace.

Our commitment to health and safety is embodied in our work culture across all departments, which reinforces our primary goal of “Zero Accidents”. About 20% of our employees were involved in safety committee group activities to support the effort of management in addressing safety issues in the plant.

Safety commitments and policies are driven by a 30-man Safety Management Committee which comprises of the various departmental heads, section heads and some other employees with the Chief Executive Officer as the Chairman, and the Head of Health Safety and Environment (HSE) Department as the Secretary. The Committee facilitates the training of management, supervisors and employees to create awareness of safety measures and policies for the prevention of workplace accidents. The committee also provides a forum for employees and management to work together to solve health and safety problems.

In addition to the Safety Management Committee, we have Safety Representatives who are selected from each department at Egbin; there are 40 safety representatives in total. The safety representatives are divided into 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. Any issue beyond the mandate of the safety representative is handled by the safety management committee.

In 2019, we had no cases of workplace injury, disease or death of an Egbin Staff or Contractor.



Our commitment to health and safety is embodied in our work culture across all departments, which reinforces our primary goal of “Zero Accidents”

20% Employees involved in safety committee activities

Occupational Health data for staff of Egbin

Data	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

Occupational Health data for contractors

Data	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

Disaster/Emergency Planning and Response

Emergencies can happen anywhere and at any time. Being prepared and planning ahead is critical to protecting lives, the environment, and property. An emergency plan specifies procedures for handling sudden or unexpected situations. Egbin Power Plc has robust emergency response policies and procedures which are tested on a periodic basis to ascertain readiness and enable the continuous improvement of existing procedures.

Our emergency plan aims to prevent emergencies from occurring, and initiates an efficient action plan to mitigate the results and effects of any emergency such as



Prevent fatalities and injuries.



Prevent fire and explosion, oil and chemical spills.



Prevent civil unrest and hostage situations.



Protect the environment and the community.



Accelerate the resumption of normal operations.

Proper safety and security arrangements are 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 the Emergency Support Staff was constituted to support the fire marshals in the event 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.





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Our emergency plan aims to prevent emergencies from occurring, and initiates an efficient action plan to mitigate the results and effects of any emergency



Social Responsibility

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Stakeholders Engagement

We believe that effective engagement helps translate stakeholder needs into organisational goals; and this creates the basis of effective strategy development. As such, in 2019 we maintained our commitment to the needs and expectations of our stakeholders which were carefully knitted into our business strategies and sustainable management system. This has been evident in the mutual progress experienced across board. The successful/peaceful coexistence between Egbin and its stakeholders at all levels/categories was maintained through regular engagement, which enabled proactive management of dynamic needs and expectations. These stakeholders, which include our Regulators, Customers, Product Suppliers, Employees, Host communities, and Shareholders, enjoyed the harmonious relationship as a result of the said engagement.

In fulfilling our social, economic, and environmental responsibilities to these stakeholders, all engagements and relations were conducted in line with the company's corporate policy

and relevant laws and regulations. During the reporting year, Egbin actively engaged all stakeholders who were directly and indirectly affected by its operational decisions; and no social or environmental concerns ensued. After each engagement exercise, the company took all feedback received from stakeholders seriously and maintained an open dialogue to ensure that the needs/requirements outlined were treated accordingly.

In the year under review, our respective dialogues with stakeholders were focused on performance, harmony, partnership, support, and accountability as required. One of our prominent stakeholder categories is the host communities to which Egbin Power Plc has proactively catered for through its Corporate Social Responsibility Initiatives. In the reporting year, we maintained our support through the supply of drugs, mosquito nets and power supply to the health facilities within the host communities; provided quality education through the Powerfields Group of Schools, and also provided Scholarships to deserving students from the host communities who met the criteria for admission into Powerfields Group of Schools.

” Our respective dialogues with stakeholders were focused on performance, harmony, partnership, support, and accountability as required

Mosquito nets donated to our host communities



Stakeholders Support

As a reputable brand, Egbin recognizes that its social, economic, and environmental responsibilities to stakeholders are integral to the success of its business. Therefore, it demonstrates these responsibilities through actions and corporate policies.

Egbin deepened its commitment to the United Nations Sustainable Development Goals with strategic focus on quality education, healthy living, and sustainable use of terrestrial ecosystem. This commitment was revealed in Egbin's conduct with and support for various categories of its stakeholders. 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. **During the reporting year, Egbin provided support to its host community and relevant stakeholders through:**



Scholarship award to indigent students;



Scholarship award to exceptionally brilliant students;



Quarterly supply of anti-malaria medicines to General Hospital, Ijede;



Onsite career exposition sessions for students of secondary schools and tertiary institutions;



Community medical outreach focusing on eye screening, distribution of free eye glasses, free eye surgeries, provision of sickle cell drugs and general consultation with over 500 beneficiaries from the host communities;



Distribution of 300 mosquito nets to reiterate our commitment to anti malaria campaign



Free and un-interrupted electricity supply to General Hospital, Ijede;



Introduction of the annual Egbin Power Community Football Competition aimed at promoting youth development and engagement;



Egbin Village Market: A personal and Corporate Social Responsibility (PSCR) initiative of Egbin Power Plc., aimed at improving the social-economic wellbeing of the host communities. The market which is located within the Estate premises of the plant provides the residents of the host communities opportunity to sell their fresh farm produce at ease.

In addition, Egbin maintained its support to its employees, technical partners and relevant stakeholders with the continued:



Provision of training courses and availability of its facilities for use to hold seminars and industry meetings;



Maintenance of a clean, healthy and safe working environment in line with its health and safety policy;



Provision of accommodation to critical operatives as approved by the Board of Directors of Egbin Power Plc.;



Establishment and communication of standard maintenance procedures on the allocated apartments to forestall the use of unauthorized persons in carrying out maintenance on the apartment;



Accessibility to quality education in Powerfields Group of Schools, upon fulfillment of entry requirements;



Constitution of an all-inclusive committee that meets regularly to discuss gas transportation, electricity transmission and other facility related issues with a view to resolving them promptly and amicably;



Accessibility of facility to other stakeholders for courtesy visits and familiarization tours at least twice

in a year, to be abreast of their operations, activities and challenges;



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.



Community Relations

Building local community relationships is one of the prioritised activities undertaken by us at Egbin. We engage directly with our host communities through a quarterly community forum which is geared towards understanding their concerns. The meetings are structured to ensure that all parties share their concerns and opinions on how the organization can further operate through a mutually beneficial relationship. During the reporting year, we maintained our commitment to the responsibility of visiting the community leaders, with aim of resolving any issue that may threaten the coexistence of parties or negatively

By partnering with the communities, Egbin seeks to:

-  Improve the standard and quality of education in the environment by providing scholarship scheme for brilliant and indigent students from host communities without gender bias;
-  Develop environmental policies and objectives as part of the business planning;
-  Support capacity development through intensive trainings for skill acquisition;
-  Support growth and wellbeing through charity within the communities;
-  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 quality healthcare within the host communities through the supply of medicine to the state-owned general hospital in Ijede.





Scholarship presentation to deserving students



Our People

A motivated, competent, resourceful, innovative, dedicated, and physically fit workforce with a culture of excellence, is a veritable tool for the success and leadership of an organization in its business environment. The shared values, skill set, and style of Egbin's workforce puts us in a unique position to effectively achieve our set goals. To ensure seamless service delivery, Egbin provides its employees with appropriate tools and opportunities for functional growth and career development.

Our members of staff are well-rounded in the technical, regulatory and financial implications of our business processes, irrespective of the functional group to which each individual belongs. This was achieved through continual knowledge sharing fora and intermittent familiarization of staff with other stakeholders, thereby gaining insights into individual contributions to the sustainability of the power sector. This awareness is easily imbibed by new hires through our onboarding program.

In the 2019 reporting year, the staff strength of the company as at December was 403 as against 375 that was reported in 2018. The staff strength comprises of 357 males and 46 females with employee turnover of 55 at a rate of 1.63. The organization deepened its interest in the development of future leaders by engaging the services of 6 (six) graduate interns and 13 (thirteen) undergraduate interns who were trained during the period of engagement.

In the reporting year, Egbin maintained its commitment to the operating principles that reward excellence and conduct by recognizing safety consciousness, professionalism, integrity, discipline, commitment to stakeholders, environmental consciousness, sustainability. This ensured fairness and non-discrimination within the organization and in its relationship with its stakeholders.





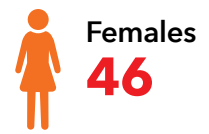
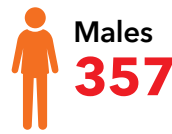
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Our members of staff are well-rounded in the technical, regulatory and financial implications of our business processes, irrespective of the functional group to which each individual belongs



Staff Strength 403

an increase from 375 reported in 2018



6 Graduate

13 Undergraduates



Diversity, Equal Opportunity and Fairness

Egbin upholds its commitment to development, performance improvement and nationhood through diversity and equal opportunity in recruitment and appointments. This ensured the recruitment and retention of qualified, competent, efficient and excellent employees for innovative business solutions that drive global presence. It is also evident in the diversity of reference 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.

Egbin provides fair opportunity and treatment for all employees irrespective of gender, culture and religion. The equal opportunity principles are in line with company's aim to motivate its employees to outstanding performance. 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, have been among Egbin's guiding principles as an organization. As a result, Egbin offers a remuneration package which is competitive and standard for both male and female employees.

Egbin maintained its commitment to ensuring transparency, fairness and non-discrimination within the microeconomic environment. This is achieved through the high-level anonymous whistleblowing mechanism hosted by Deloitte. Egbin migrated its whistleblowing channel from submissions to expressyourself@egbin-power.com as a means of reposing more confidence in individuals willing to submit reports and eliminate any form of perceived non-anonymity.

In concordance with equality in the workplace, Egbin provides childcare support systems, ensuring a work-life balance



Egbin provides fair opportunity and treatment for all employees irrespective of gender, culture and religion. The equal opportunity principles are in line with company's aim to motivate its employees to outstanding performance.

6%

Utilized Parental Leave

an increase from the 3.2% of staff reported in 2018



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.

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 3.2% usage of the parental leave, in the 2019 reporting year, 6% 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.



Occupational Health and Safety

Beyond compliance, Egbin values the occupational health and safety of its workforce as a priority for its sustainability. This has helped the organization in providing initiatives that enable all employees to maintain their overall health and wellbeing as well as prevent incidents that may arise from environmental impact. To reaffirm the mutual commitment to safety by the management and employees, Egbin partnered with Energy Training Centre to train staff members on standard protection code, a training that reinforces safety awareness and conduct within and outside the facility.

In a bid to provide satisfaction through the health management policy for its employees, Egbin added another HMO to its existing service provider. This was premised on the commitment to continuous improvement as informed by the feedback from the employees.

Other initiatives promoted by the organization's health policy include:



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

The safety policy drive in the year under review broadened the enlightenment, education, and tasking of the workforce on the maintenance of personal health and a hazard-free workplace. This was achieved by leveraging on the activities of the joint management-workers safety committee and representatives as recommended by health and safety law to enable organizations to manage industrial safety and reduce incidents holistically.



Beyond compliance, Egbin values the occupational health and safety of its workforce as a priority for its sustainability.



Carbon Footprint Reduction



As a step further than responsible consumption of energy, Egbin developed an enterprise-wide initiative called "Walk to Work" (W2W). The initiative is aimed at reducing emission per capita. With the W2W initiative, 403 staff members commit to avoiding the use of fossil fueled vehicles once every quarter. This commitment helps reduce individual carbon footprint and maintain wellbeing.



Training & Education

Grooming Future Leaders

In the year under review, the Egbin collaborated with its parent organization and the industry training partners to recruit and train 40 (forty) graduate engineers for the intricacies of the business. This is in addition to the successful onboarding of youngsters through the Operations and Maintenance Technician program which was conducted in the same year. Egbin remains committed to the identification of talents, recognition of excellence and overall development of its employees from bottom to top as a strategy towards youth empowerment and national development. Egbin also provided all-inclusive development opportunities strategically for young employees towards building their business and technical management competencies through secondment, leadership roles and engagements with other players and stakeholders in the power sector. The organization also provided students and graduate internship programs for students and graduates of relevant education.

Trainings

Trainings position an organization on a pedestal to achieve higher performance and meet the expectations of its stakeholders within its corporate policy. Egbin views it as a vital tool for continuous professional and skills development of its workforce for performance improvement. In the year 2019, Egbin extensively implemented training programs and learning initiatives for its existing employees and staff members who exited on retirement. This is in addition to the support to staff in furthering their professional education through part-time studies. The organization also leveraged its in-house learning and development initiatives across all functions.

Partnerships have also been established with several learning providers and Original Equipment Manufacturers (OEMs)

to design essential training programmes on techniques and procedures, use of specialized tools and other specialized trainings. Egbin also digitalized all manuals and technical drawings to provide seamless access to all staff members.

Proactively, a competency framework was developed for the technical group. This comprises of knowledge, skills and attributes required to carry out jobs. 93 competencies were developed and will be leveraged in developing appropriate capacity building programmes for Technical personnel in Egbin to the required standards. Following the launch of the framework, comprehensive skills audit against the competencies defined commenced for the entire technical workforce. This will lead to the identification of future interventions required to plug the critical gaps. The competency framework will help guide Line Managers to plan and

develop their team to the required level. It also gives Egbin the possibility to assess potential recruits, by utilizing competency-based assessments and interviews.



40
Graduate engineers recruited

” Egbin remains committed to the identification of talents, recognition of excellence and overall development of its employees from bottom to top as a strategy towards youth empowerment and national development.

Scholarship Program

Egbin remains committed to the global achievement of the sustainable development goal four which seeks to achieve equal access to quality education. 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 2019 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.

Premised on leading the performance chart 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 2019 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 and maintain outstanding performances which position them as individuals to reckon.



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 2019 reporting year



18
Indigenes Scholarship Beneficiaries

Technical Visitations and Facility Tour

Egbin strives to create awareness on the relentless efforts of all players in the industry and as such, arouse the interest of citizens in providing support to the industry by ensuring productive and efficient use of electricity. Beyond the industry awareness which is hands-on for the employees of Egbin power Plc., the organization opened its doors to reference 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 welcomed students, other players within the sector, and newly engaged career diplomats of the ministry of foreign affairs, among many others.

Investment in Future Leaders

Congruent to the organization's strategy for the development of future industry leaders through its social development programs, Egbin engaged the services of 6 (six) National Youth Service Corps members and 13 (thirteen) interns whose disciplines were closely related to our organizational functions and other relevant business areas. The company values the training, education, and exposure of young minds as a strategy to groom future leaders who will be capable of business and technical management in the industry.



Appendix







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 assess our performance in 2019.

In the spirit of sustainability, Egbin has ensured that the 2019 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 2019 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 2019.

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

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

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 staff strength of the company as at December, 2019 was 403 as against 375 that was reported in 2018. The staff strength comprises of 357 males and 46 females with employee turnover of 55 at a rate of 1.63. The organization deepened its interest in the development of future leaders by engaging the services of 6 (six) graduate interns and 13 (thirteen) 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 Standards Global Reporting Initiative

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

GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
Disclosure 102 - 17	Mechanisms for advice and concerns about ethics.	Diversity and Equal Opportunity	Disclosed	-
GOVERNANCE				
Disclosure 102 - 18	Governance Structure.	Board of Directors	Disclosed	-
Disclosure 102 - 19	Delegating authority.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 20	Executive-level responsibility for economic, environmental and social topics.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 21	Consulting stakeholders on economic, environmental and social topics.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 22	Composition of the highest governance body and its committees.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 23	Chair of the highest governance body.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 24	Nominating and selecting the highest governance body.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 25	Conflicts of interest.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 26	Role of highest governance body in setting purpose, values and strategy.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 27	Collective knowledge of highest governance body.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 28	Evaluating the highest governance body's performance.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 29	Identifying and managing economic, environmental and social impacts.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 30	Effectiveness of risk management processes.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 31	Review of economic, environmental and social topics.			Not Applicable to Core "In Accordance" Option

GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
Disclosure 102 - 32	Highest governance body's role in sustainability reporting.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 33	Communicating critical concerns.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 34	Nature and total number of critical concerns.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 35	Remuneration policies.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 36	Process for determining remuneration.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 37	Stakeholder's involvement in remuneration.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 38	Annual total compensation ratio.			Not Applicable to Core "In Accordance" Option
Disclosure 102 - 39	Percentage increase in annual total compensation ratio.			Not Applicable to Core "In Accordance" Option
STAKEHOLDER ENGAGEMENT				
Disclosure 102 - 40	List of stakeholder groups.	Our Stakeholders	Disclosed	-
Disclosure 102 - 41	Collective bargaining agreements.	Procurement Practices	Disclosed	-
Disclosure 102 - 42	Identifying and selecting stakeholders.	-	Disclosed	Regulatory requirements and compliance. The Nigerian Electric Power Sector Reform Act 2005. Corporate Social Responsibility. The Egbin Code of Ethics and Corporate Governance Principles.
Disclosure 102 - 43	Approach to stakeholder engagement.	Our Stakeholders	Disclosed	-
Disclosure 102 - 44	Key topics and concerns raised.	CEO's Message	Disclosed	-
REPORTING PRACTICE				
Disclosure 102 - 45	Entities included in the consolidated financial statements.	-	Disclosed	Only Egbin Power Plc
Disclosure 102 - 46	Defining report content and topic Boundaries.	Board Chairman's Message	Disclosed	-

GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
Disclosure 102 - 47	List of material topics.	Economic Section Environment Section Social Section of the Sustainability Report	Disclosed	-
Disclosure 102 - 48	Restatements of information.	-	Disclosed	Some restatements were made because the issues had either not changed or simply continued into the reporting year.
Disclosure 102 - 49	Changes in reporting.	-	Disclosed	There were no significant changes made to the 2019 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 2019 to December 2019
Disclosure 102 - 51	Date of most recent report.	-	Disclosed	November, 2018
Disclosure 102 - 52	Reporting cycle.	-	Disclosed	Annual
Disclosure 102 - 53	Contact point for questions regarding the report.	-	Disclosed	Egbin Corporate Governance 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 2019 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	-

GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
Disclosure 201 - 2	Financial implications and other risks and opportunities due to climate change.	Climate Change and Sustainable Electricity Generation	Disclosed	-
Disclosure 201 - 3	Defined benefit plan obligations and other retirement plans.	-	Disclosed	Egbin maintains a defined contribution Pension Scheme in accordance with the Pension Reform Act, 2004. Based on the reviewed Pension Reform Act 2014, the contribution by the employer and the employee was reviewed to 10% and 8% respectively of the employee's monthly emolument. The scheme covers 100% of the pension benefit and liabilities. The participation in retirement plans is mandatory, as it is guided by the Pension Reform Act 2014.
Disclosure 201 - 4	Financial assistance received from government.	Financial Assistance Received from Government	Disclosed	The company was able to achieve major milestones in the process of filing for the Pioneer Status that will lead to tax savings.
GRI 202: Market Presence				
Disclosure 202 - 1	Ratios of standard entry level wage by gender compared to local minimum wage.	Our People	Disclosed	-
Disclosure 202 - 2	Proportion of senior management hired from the local community.	-	Disclosed	None in employment
GRI 203: Indirect Economic Impacts				
Disclosure 203 - 1	Infrastructure investments and services supported.	Plant Operations and Maintenance	Disclosed	-
Disclosure 203 - 2	Significant indirect economic impacts.	Investment in Human Capital, Safety and Environment Economic Contributions to the Local Communities	Disclosed	-
GRI 204: Procurement Practices				
Disclosure 204 - 1	Proportion of spending on local suppliers.	Economic Contributions to the Local Communities	Disclosed	-
GRI 205: Anti - Corruption				

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

GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
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 30.80%.
Former Electric Utilities Disclosure 12	Transmission and distribution losses as a percentage of total energy.	-	Disclosed	The transmission losses target of the Multi Year Tariff Order of the Nigeria Bulk Electricity Trading Company is 8.05%. This is used to compute the net power generated and wheeled into the grid by the Egbin power station.
ENVIRONMENTAL IMPACTS				
GRI 301: Materials				
Disclosure 301 - 1	Materials used by weight or volume.	-	Not Disclosed	The information is not currently being recorded. Systems will be put in place to collate this data in the nearest future.
Disclosure 301 - 2	Recycled input materials used.	-	Not Disclosed	The information is not currently being recorded. Systems will be put in place to collate this data in the nearest future.
Disclosure 301 - 3	Reclaimed products and their packaging materials.	-	Not Disclosed	This disclosure is not applicable to Egbin Power Plc as a power generating company.
GRI 302: Energy				
Disclosure 302 - 1	Energy consumption within the organization.	-	Disclosed	Energy Consumption
Disclosure 302 - 2	Energy consumption outside of the organization.	-	Disclosed	Energy Consumption
Disclosure 302 - 3	Energy intensity.	-	Disclosed	Energy Consumption
Disclosure 302 - 4	Reduction of energy consumption.	-	Disclosed	Energy Consumption
Disclosure 302 - 5	Reductions in energy requirements of products and services.	-	Disclosed	Energy Consumption
GRI 303: Water				

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

GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
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 2019. 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 2019, Egbin Power Plc hired 6 (six) graduate interns and 13 (thirteen) undergraduate interns who were trained during the period of engagement; with an employee turnover of 55 at a rate of 1.63.
Disclosure 401 - 2	Benefits provided to full-time employees that are not provided to temporary or part-time employees.	-	Disclosed	Paid time off from work. Health Care. Life Insurance. Disability and invalidity coverage. Housing Allocation. Welfare packages

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

GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
Electric Utilities Disclosure 18	Percentage of contractor and subcontractor employees that have undergone relevant health and safety training.	-	Disclosed	70% of Egbin Power Plc contractors and their employees received both formal and informal HSE training for task within or outside the power plants.
GRI 402: Labour Management Relations				
Disclosure 402 - 1	Minimum notice periods regarding operational changes.	-	Disclosed	One Month
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 for now 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 for now.
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.
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				

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

GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
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. Safety of Marine Life. Investment in the Sustainable Future	Disclosed	-
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	-

GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
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 2019.
Disclosure 414 - 2	Negative social impacts in the supply chain and actions taken.	-	Disclosed	In the reporting year 2019, 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.
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 center 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.

GRI Standard Disclosure Number	Disclosure Definition	Disclosure Location	Disclosure Status	Direct Response and Clarification
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 disconnectionAnd 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	-
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.
GRI 417: Marketing and Labeling				
Disclosure 417 - 1	Requirements for product and service information and labeling.	-	Disclosed	None

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

