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An Examination of Energy Crisis in Nigerian Tertiary Education

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Abstract: This paper assessed the impact of the energy crisis on Nigerian tertiary institutions. The paper employed secondary data. The secondary data were collected from government documents, print resources and online publications. Content analysis was used to narrow the literature to the theme of the study. Limited energy generation and distribution, corruption and non-generation of energy by tertiary institutions and **power system maintenance/ vandalism were identified as factors responsible for the energy crisis in the tertiary institutions.** Consumption of funds, poor implementation of teaching, research community service and fee increments were concluded as the impact of the energy crisis on tertiary institutions in Nigeria. Based on the findings, the paper recommends; that the federal government should increase investment in the energy sector. The investment should cover the procurement of facilities to aid the distribution of power generated; the federal government should direct all anti-corruption agencies to monitor funds allocated for energy sector development. Technologies should be deployed to curtain corruption in the energy sector. The federal and state governments should mandate DISCOs to introduce a dedicated social tariff band with reduced rates for public tertiary institutions across Nigeria. The federal and state governments should increase the funding of tertiary institutions across Nigeria. Tertiary institutions should embark on independent Power Supply projects and Solar Power Supply projects that will provide constant power for the institutions.

Key points: China, Education Development, Nigeria.

Introduction

The Nigerian Electricity Regulatory Commission (NERC) approved a 300 per cent increase in the tariff paid by Band A customers from N68/KWh to N225/kWh. The Vice Chairman of NERC, Mr Musiliu Oseni, who announced this in Abuja, clarified that the rate of increase will only affect 15% of the country's electricity customers. Oseni also noted that these customers, who represent 15% of the population, consume 40% of the nation's electricity. These customers are classified under the Band A service category, and the Distribution Companies must provide a minimum of 20 hours/day measured over one week. By that announcement, federal universities whose locations fall within 'Band A' have seen their monthly electricity bills quadruple. A recent energy audit in Ahmadu Bello University (ABU), Zaria, sighted by our reporter, estimated the electricity consumption of the university to be about 1,629,936 kW in a month. When multiplied by N225, it amounted to N366/7

million electricity bill per month. In one year, the electricity bill will be N4.4 billion per annum **(Ogwu, Olaniyi, Abdulkareem, Musa, & Ahmadu-Suka, 2024). Wahab, Aliu, Badru, Akinyemi, Hassan-Wuyo, Bello & Badru,** (2024) **reported that** the Ahmadu Bello University, Zaria, Kaduna State noted that the University cannot afford the N3.6 billion annual electricity bill slammed it. The bill averages N300 million monthly, given the cost of N206 per kWh under the Band A electricity tariff, which the institution has described as "unaffordable."

The increment in the electricity tariff which affected tertiary institutions facilitated the writing of an open letter to the President Federal Republic of Nigeria by some tertiary institutions stakeholders on Monday, July 1, 2024, titled 'An open letter to the visitor, President Bola Ahmed Tinubu, over the looming energy crisis in Ahmadu Bello University, Zaria.'' The letter was signed by 40 professors from different departments, called on Tinubu to intervene in the huge tariff, and said universities should be shielded from the extremities of commercialisation. The letter noted that the institution, alongside "Nigerian public universities in general, cannot afford it due to their weak financial position resulting from chronic under-funding." The statement read: "We, the undersigned Nigerian citizens and academic staff of the Ahmadu Bello University, Zaria, wish to forward a complaint over the debilitating energy crisis bedevilling Ahmadu Bello University given the centrality of electricity supply to university operations and seek your intervention for its resolution. "We take this action out of the conviction that, as the President of the Federal Republic of Nigeria and Visitor to the university, Your Excellency is in a position to mediate over the matter, especially because the crisis aggravated with the recent high increase in electricity tariff in the country, which ABU in particular, and Nigerian public universities in general, cannot afford due to their weak financial position resulting from chronic underfunding." (**Wahab, et al** 2024). From the above problem identified, the paper seeks to examine the impact of the energy crisis on tertiary education in Nigeria.

Theoretical Framework

The paper anchored on role theory developed by Ralf Dahrendorf, Robert K Merton and Gorge Herbert Mead in 1956. The theory's principle hinged on the development of social roles in society. The theory focused on how well individuals adopted and acted out their roles during interactions. Individuals do not necessarily embrace all the identities associated with their roles, though; the extent to which they are committed to identifying with the expectations placed on them can vary. As an outcome of these interactions, individuals may identify themselves or be identified by others as holding particular statuses or positions. Structural roles are defined as the roles society gives us. They might include the roles of birth and place within the family hierarchy, gender roles, social status, and economic roles. Individuals like actors of governance also have a role to play in enhancing the development of society, via the provision of a stable and affordable power supply. Thus, it has been argued that "the responsibility of safeguarding the economy and putting in place infrastructure that can boost development to enhance the financial security" (Ayeni, 2024, p. 1228). Financial security enables people and organisations to provide for their basic needs. Structural roles also typically include an expectation of behaviour. In a structured, patriarchal family, for instance, a boy may be considered a brother, an uncle, a father, a breadwinner, and a major decision-maker (Betterhelp, 2024).

Thus, it has been noted that tertiary education is a post-basic and secondary school education that embraces advanced teaching, research and community service (Ogunode, Ayeni, & Ogwuche, 2024). The implication of this theory to this paper is that the government has the constitutional role of providing a stable power supply to all Nigerians and public and private institutions across the country. It is the duty and responsibility of the government to ensure that public and private institutions operating in Nigeria are provided with adequate power to aid the implementation of teaching, research and community services. The inability of the government to do the needful in terms of intervening in the energy crisis currently going on-going in Nigeria can affect the teaching, research and community development carried out by tertiary institutions. Thus, the inability of any structure to perform its function will cause the system to malfunction (Ayeni & Nwaorgu, 2018). The truth is that the government has a role to play in the regulation of electricity to ensure that

teaching, research and community service carried out by tertiary institutions are not interrupted by the energy crisis occasioned as a result of a hike in the price of electricity.

Concept of Tertiary Education

Tertiary education refers to all *formal* post-secondary education, including public and private universities, colleges, technical training institutes, and vocational schools. It has been noted that tertiary institutions are a micro section of the larger society (Ogunode & Ayeni, 2024). Tertiary education is instrumental in fostering growth, reducing poverty, and boosting shared prosperity. A highly skilled workforce, with lifelong access to a solid post-secondary education, is a prerequisite for innovation and growth: well-educated people are more employable and productive, earn higher wages, and cope with economic shocks better (World Bank, 2024). Tertiary education is an educational system designed to solve local, national and international pressing problems (Ogunode & Musa 2024). Tertiary education fosters individual development and growth as well as impacts positively on society at large (Schrader-King, 2024).

Tertiary education can be defined as the planned and organized system of learning designed for the total development of individuals and the total transformation of society through the utilization of teaching, research and provision of community service (Ogunode, Edinoh & Okolie 2023). Tertiary education is a subset of the general society comprising the collection of different people with different cultural and ethnic backgrounds, lifestyles, living standards and moral values (Ogunode & Odo 2023) participating in educational activities. Ogunode and Mcbrown (2022), tertiary education is an educational system that advances the implementation of the teaching programme, research programme and community service programme for the socio-economic, socio-cultural and technological development of a particular country. The diversities of formal and informal educational activities carried out in tertiary institutions (Singh, 2015) usually put into consideration the value system obtainable within a particular country.

Tertiary education was defined Federal Republic of Nigeria in her national policy on education (2013) as institutions owned by the government. Public tertiary institutions are institutions established by the law of the parliament to provide a public higher education for the people within the country. Tertiary Education is the education given after Post Basic Education in institutions such as Universities and Inter-University Centres such as the Nigeria French Language Village, Nigeria Arabic Language Village, National Institute of Nigerian Languages, institutions such as Innovation Enterprise Institutions (IEIs), and Colleges of Education, Mon technics, Polytechnics, and other specialized institutions such as Colleges of Agriculture, Schools of Health and Technology and the National Teachers' Institutes (NTI) (FRN, 2013). The development and sustainability of tertiary education depend on stable and adequate provision of energy or power.

Concept of Energy and Energy Crisis

Energy, power or electricity is resources that generate power or light. Energy is considered by Energypedia (2017) as electricity (Power), which is the most versatile form of energy. Without access to reliable electricity, education becomes very difficult and the quality of services delivered becomes poor. Ogunode and Olugbenga, (2023) maintained that energy is used for lighting room offices, lecture halls, theatres and labs. Energy enables the powering of A/C, working fans and many more which provides us comfort in the offices and halls within the campuses. Energy also provides a means of entertainment in the schools; radio, television and cinema are possible because of a stable power supply. Equipment like information communication technologies and computers also require energy to be used in the respective offices. Constant energy supply is critical for the development of higher institutions. Energy keeps moving the educational sector forward. Electricity is an infrastructure facility that enhances human security (Ayeni, Andeshi, & Uzoigwe, 2022). The provision of a stable and affordable power supply is germane to the survival of tertiary institutions.

The importance of adequate and stable energy supply in tertiary institutions according to Ogunode et al (2023) includes; it makes the implementation of teaching programmes simple, fast and interesting; it makes the implementation of research programmes possible; it makes the provision of

community services programme economical and reliable and it makes school administration fast and effective. The fund that is supposed to have been used for infrastructural development is now being used for stomach infrastructure like vote-buying (Ayeni, Doosuur, & Kefas, 2021). This development cut across energy infrastructure and has thus led to the energy crisis in Nigeria

The energy crisis refers to unstable problems in the generation and distribution of power resulting in poor distribution to the final consumers. The energy crisis is a state where power generation and distribution are not serving its objectives. An energy crisis refers to a situation where the power sector of a country or state fails to generate and distribute power that is adequate to support the production of goods and services in the state. To address the problem of the energy crisis is to provide infrastructure like electricity. Thus, it has been argued that it is the responsibility of the government to provide those amenities that empower people (Ayeni, Sani, Idris, & Uzoigwe, 2019, p. 264). The prevalence of the energy crisis if allowed to continue can hinder economic growth that is the foundation of economic development. The above development can compound the already existing "absence of economic development in Nigeria that war against access to education, technological advancement and opportunity for people to succeed" (Ayeni, & Abdullahi, 2024, p. 91).

Investigations by different scholars revealed an energy crisis in the various tertiary institutions across Nigeria. For instance, at the University of Benin, Peter, (2017) maintained that despite the challenges of poor power supply, the management of the university reduced the number of hours of light supplies to the universities for administrative work and implementation of teaching programmes. Many tertiary institutions in Nigeria depend on generator plants for the supply of electricity to the universities. The poor supply of power has made universities ration electricity among faculties and departments. Tertiary institutions are now providing electricity with a generator to all the hostels between the hours of 6 am and 7 am as well as 7 pm and 10 pm daily. The lack of power supply has increased administrative costs for many higher institutions in Nigeria because they depend on fuel and diesel for plant operations. Musa, (2022) noted that most universities are forced to provide their electricity using diesel-run generators as alternative sources of electricity.

Izuaka, (2023) observed that the Abuja Electricity Distribution Company (AEDC) said **insufficient** power allocation to the company by generation stations was responsible for the unstable electricity supply in the region. In June, the Manufacturers Association of Nigeria (MAN) said it loses N10.1 trillion annually to power crisis, just as the World Bank said that Nigeria will need about $100 billion in the next 10 years to tackle the challenges in its energy sector. In June 2015, Nigerian manufacturers said they spent as much as N3.5 trillion annually to generate alternative power for their production operations due to the collapse of the public electricity supply. This development can lead to the loss of jobs if allowed to continue, as people might be retrenched or relieved of their jobs thereby causing a lack of financial security for people. Therefore, it has been noted that the inability of political authorities to provide people with basic needs is a threat to human security (**Ayeni, Sani, & Haruna, 2023, p.** 136). The energy crisis is something that needs government attention to address; hence it is their role to enhance the well-being of individuals in the society. Scholars have posited that the "security implication of electricity privatisation in Nigeria is that the masses are now paying for services they never enjoyed, a development that increases poverty level and pushes many into diverse criminal activities" (Ayeni, Oluwole, & Nurudden, 2020, p. 24). The privatisation of electricity has not yielded tangible benefits, as it has threatened the financial stability of individuals and organisations providing essential services, even in the current democratic dispensation. Following the above, Ayeni and Sani (2021) noted that democracy itself is capable of bringing about political development where there is happiness for the greatest number of citizens. However, the current energy crisis in Nigeria is not making many to be happy.

Successive governments according to Izuaka, (2023) have promised but failed to turn around the country's power sector which on average produces about 4,000 megawatts for a population of 200 million. The Buhari administration in July 2019 signed a deal with Germany's Siemens to overhaul the sector. The plan has three phases, ultimately targeting 25,000 MW of operational capacity long term from 7,000 MW and 11,000 to be achieved by 2021 and 2023, respectively, through the first two phases. The country also plans to generate 30,000MW by 2030 with 3,000MW coming from renewables and 27,000MW from its power plants to serve its over 200 million people. However, power generation still hovers just below 5,000 years after the sector was privatised. The country's 4,000MW daily generation is barely adequate to serve Lagos, its commercial capital of over 20 million people, according to the Nigerian Association for Energy Economics. The inability of the government not to provide adequate electricity supply, let alone affordable energy is a negation to peacebuilding, hence the presence of an energy crisis. According to Ayeni, Uzoigwe, Sani and Dubu (2019), "Peacebuilding is all the processes employed to ensure pleasant relationships among the people in the society, devoid of oppression, extortion, exploitation, absolute poverty and violation of fundamental human rights" (p. 80). There is currently a high level of exploitation in the power sector, as people are forced to pay the electricity they never used.

Factors Responsible for Energy Crises in Tertiary Institutions in Nigeria

There are many factors responsible for energy crises in tertiary institutions in Nigeria. Some of the factors include; limited energy generation, corruption and non-generation of energy by tertiary institutions and power system maintenance/ vandalism**.**

Limited Power Generation and Distribution

Limited generation by various institutions saddled with power generation and distribution in Nigeria is a major factor responsible for limited energy in the various tertiary institutions in Nigeria. According to statistics provided by GET.invest, a European programme focused on renewable energy projects, noted that only 3,500 MW to 5,000 MW is typically available for onward transmission to the final consumers in Nigeria. This is essential because of the country's poor transmission network and incessant collapse of the national grid amongst other factors. This is happening despite the privatisation of 11 electricity distribution companies (DISCOs) and six generating companies (GENCOs) with the federal government retaining 100 per cent ownership of the Transmission Company of Nigeria (TCN). Despite the poor supply, electricity tariffs have also continued to be on the rise in the country. Nigeria has struggled with poor power supply for decades, a challenge that is estimated to cost businesses about $29 billion yearly, according to the World Bank. The country has the lowest access to electricity globally, with about 92 million persons out of the country's 200 million population lacking access to power, according to the Energy Progress Report 2022 released by Tracking SDG 7. World Bank report in 2021 also explained that a total of 74 per cent of power users in the country are dissatisfied with the supply of electricity across the country while 93 per cent of metered power users paid their bills regularly, 78 per cent of electricity consumers in the country received less than 12 hours of power supply daily (Izuaka, 2023).

Corruption

Nigeria's electricity sector is seriously challenged by low levels of access and inadequate supply leading to regular power outages and one of the factors responsible is corruption. Corruption has practically been accepted by individuals as a way of life (Ayeni, Tusayi, Joseph & Obatayo, 2018). Therefore, the high rate of corruption in the power sector is responsible for the instability in the supply of power in Nigeria, particularly the tertiary institutions. The Centre for Health, Equity and Justice (CEHEJ) noted that corruption in Nigeria's power sector has gulped N11 trillion since 1999. The report indicated that the figure might increase to N20 trillion in the next decade. According to Yemi Cole, an associate professor of law at the University of Lagos who made the presentation, the report established that the corruption in the power sector "manifests significantly in the process and procedure for contracts to certain (privileged corporations). The total estimated financial loss to Nigeria from corruption in the electricity sector from the return to democracy since 1999 to date is

over Eleven trillion Naira (N11 Trillion Naira), the report stated. “This represents public funds, private equity and social investment (or divestments) in the power sector. “It is estimated that it may reach over Twenty Trillion Naira (N20 Trillion Naira) in the next decade given the rate of Government investment and funding in the power sector amidst dwindling fortune and recurrent revenue shortfalls (Thecable, 2019). Corruption has penetrated all the sub-sectors in the power sector. Ayantoye (2024) quoted the Network for Electricity Consumers Advocacy of Nigeria who have claimed that corruption within the electricity sector is the primary cause of the recent hike in the price of electricity tariff. The Federal Government, through the Nigerian Electricity Regulatory Commission, has approved an increase to N225 ($0.15) per kilowatt-hour from N68; a 300 per cent hike to take effect from April 1, 2024. Also, Ayantoye (2024) quoted the National Chairman of NECAN, Akinbogun, who emphasised the detrimental impact of corruption on the cost of electricity, attributing the high tariff to various forms of malpractices within the sector. The Minister for Power must listen to the public first before listening to those who are fed fat because of the corruption in the electricity sector. Akinbogun also criticised the Federal Government for allegedly siding with electricity companies at the expense of consumers. He urged the Minister for Power to prioritise public interests over corporate interests and address the pervasive corruption within the sector. Negative effects of corruption in Nigeria's electricity sector include frequent outages and low levels of access to electricity, the adverse selection of politically connected investors and harm to consumers through demands for bribes (Unknown, 2023). Ogunode & Josiah, Ajape, (2021); and Ahmodu, & Sofoluwe, (2018) maintained that corruption in Nigeria has affected the development of infrastructure facilities and tertiary institutions. The above development is also corroborated by the view that corruption is almost the second name of political officeholders in Nigeria (Muhammed, & Ayeni, 2018, p. 322)

Non-generation of energy by tertiary institutions

The non-generation of energy by the various tertiary institutions in Nigeria is also responsible for the poor energy crisis in Nigerian tertiary institutions. Many tertiary institutions in Nigeria do not have their own independent Power Supply facilities and Solar Power Supply facilities and this has made them depend on the national grid wholly with alternatives. Monday (2019) the poor involvement and participation of tertiary institutions in power generation is one of the factors responsible for the power problems in the higher institutions.

Power system maintenance/Vandalism

Transmission Company of Nigeria (TCN), yesterday, blamed the low generation capacity in the country on recurring national grid collapses. The facility has crashed over 150 times since privatisation in 2013 of the nation's public utility. Izuaka, (2023), submitted that poor maintenance of electricity infrastructure has been one of the major causes of poor supply in the country. The vandalism of the transmission infrastructures and distribution equipment has also been a common occurrence. In March 2022, a 330kv Sapele to Benin transmission line tripped off after serial vandalisation of the facility affected some towers under it. Again in March, the country suffered extensive power outages when 18 plants accounting for most of the electricity the country generates faced operational problems. The then Minister of Power, Abubakar Aliyu, blamed the constant collapse on poor maintenance and shortage of gas. He, however, said the government had upgraded four power plants as part of efforts to improve the sector.

On 8 April 2022, several Nigerian cities including the Federal Capital Territory were thrown into darkness after the national grid collapsed again. At the time, the federal government said the collapse of the national grid was caused by “vandalism” on a transmission tower on the Odukpani Ikot Ekpene 330kV double circuit transmission line, leading to a loss of about 400 MW of generation. Last July, the Enugu Electricity Distribution Company (EEDC) said more than 20 transformers had been attacked by vandals across the company’s franchise network within the South-East in three weeks. In 2022 alone, the country’s national grid reportedly collapsed eight times, partly due to vandalism, and many Nigerians expect the power minister to address the concern (Izuaka, 2023).

Impact of Energy Crisis on Tertiary Education in Nigeria

There are many impacts of the energy crisis on the management of tertiary institutions. Some of the energy crisis includes; the consumption of funds, poor implementation of teaching, research, community service and increment in fees of tertiary institutions.

Consumption of tertiary institutions funds

The recent increment in the tariffs of electricity in Nigeria has affected tertiary institutions' funds. The increment is taking huge financial resources from their intervention funds. **Ogwu, et al (2024) and Wahab, et al (**2024) observed that Universities in the country are groaning under the yoke of high tariffs thrust on them by electricity distribution companies, DISCOs, which may see the 10 with the highest budgets spending over N75 billion on electricity this year. **Wahab, et al (**2024) noted that the increment has led to many universities rationing power, or some being disconnected from the national grid by DISCOs over unpaid bills. The 10 public universities with the highest budgets for 2024 are the University of Nigeria, Nsukka, N36.6bn; the University of Calabar, N29. 5bn; Ahmadu Bello University, N29. 2bn; Nnamdi Azikiwe University, Awka, N26.3bn; and the University of Benin, N24.2bn. Others are the University of Ibadan N23.4bn; the University of Maiduguri N22.3bn; University of Port Harcourt, N19. 6bn; University of Lagos N19. 4bn; and Obafemi Awolowo University, N17.1bn. **Wahab, et al (**2024) asserted that the universities are not finding it easy to cope with high electricity tariffs, as their recent categorisation into ‘’Band A’’ without commensurate provision of electricity is putting them under severe pressure. For instance, the monthly bill given to UNILAG jumped from N180 million to N300 million. The situation is the same at ABU which contends with about N300m monthly bill. At the Federal University of Technology, Akure, FUTA, the Benin Electricity Distribution Company, BEDC, raised the monthly bill from N20m to N60m. The university is supposed to enjoy 20 hours of power supply, but hardly gets eight hours daily. At UNIBEN, which recently experienced student unrest, occasioned by poor power and water supply on campus, the BEDC upped the tariff from N80m monthly to N250m. At the University of Ilorin, Vanguard reliably gathered that the bill was increased from about N350m in May 2024 and payment of the IBEDC bill has put pressure on other finances of the citadel of learning (**Wahab, et al** 2024).

The increment of the tariffs has put pressure on tertiary institutions' finances thereby consuming a lot of tertiary institutions' budgets. According to Auwalu Umar of the Public Affairs Directorate of one of the public universities in Nigeria observed that before the recent increase in the electricity tariff in the country, the university used to pay an average of N120 million every month. ‘’The money is not there to pay these huge monthly electricity bills. After all, the overhead the university receives every year from the Federal Government can’t pay its electricity bills for one month. **Ogwu, et al (2024) noted that** the Vice Chancellor of the University of Ilorin, Professor Wahab Olasupo Egbewole (SAN), has expressed concern over the recent hike in electricity tariffs imposed by the Ibadan Electricity Distribution Company (IBEDC). The VC said the development has seriously affected the university's budget. Poor electricity has become a barrier to tertiary institutions' development in the country, a challenge to effective management and administration of the system.

Poor Implementation of the teaching programme

The teaching programme of tertiary institutions in Nigeria appears to be affected by the recent increment in the tariffs in Nigeria. Teaching refers to the impartation of knowledge and skills to learners in educational institutions. The teaching programme of tertiary institutions consists of physical, and virtual delivery of lectures, extra-curriculum, research and provision of academic services. Implementation of teaching programmes in tertiary institutions requires a lot of human and material resources. Materials resources such as power supply, internet service, ICT etc must be available and adequate for effective implementation of teaching programmes in the various tertiary institutions. The increment in the tariffs of electricity in Nigeria recently has affected the smooth

implementation of the teaching programme. The high tariff has led to an unstable power supply which is militating against the execution of teaching, academic services, dissemination of research results and poor learning among the students. Lecturers found it difficult to lecture via virtual means and carry out research in the institutions. An unstable supply of power affects the constant supply of water, internet service and effective usage of ICT for academic work and learning for students. An investigation by **Wahab, et al (**2024) and Ogunode, Ngezack and Usi (2024) showed that the situation has led to many universities and other tertiary institutions rotating power distribution, or some being disconnected from the national grid by DISCOs over unpaid bills. The obvious implication is that staff cannot deliver on their work 100 per cent "because it is only the administrative block that the generator can power throughout working hours," and students cannot have a conducive environment to learn. Babatunde (2014) opined that the lack of a stable electricity supply is threatening effective online teaching and learning in the country. According to the scholar, the lack of a stable power supply will hinder the effective teaching and learning process. "It is not all about access to internet facilities.

Poor Implementation of the research programme

The energy crisis in Nigeria which has affected the operations of tertiary institutions has negative impact on research development in Nigeria. Research is the second cardinal programme of tertiary institutions. Research is carried out by both the students and lecturers. The research programme of the tertiary institutions has been described by Echono, (2023) and Ogunode, and Ade (2023) as a tool for the facilitation of national development and transformation. Research is systematic. Research is a process that requires a lot of human and material resources (Ogunode, Jegede, Adah, Audu, & Ajape 2021). Energy, internet services and water supply are some of the essential research resources that must always be adequate and available to ensure the delivery of quality research output. The energy crises in tertiary institutions appear to be affecting the effective implementation of research programmes. The instability in the supply of power in the various tertiary institutions has slowed down the development of research. Many research projects have been abandoned and left because of energy crises in the higher institutions across the country. For instance, at the University of Ilorin, **Wahab, et al (**2024); and Odocha, (2016) revealed that the power supply to the institution has been drastically reduced, as students cannot use it to carry out academic activities such as typing, photo-copping and printing of documents. The poor supply of light in their hostels and campus has affected their reading. Consequently, water supply to the hostels depends on power supply, this has affected water supply in the institutions and laboratories. Due to poor electricity supply water supply was given about an hour daily in the university. Recently, the National President of the Congress of University Academics, CONUA, Sunmonu, as quoted by (**Wahab, et al** 2024) maintained that the high power tariff affects both individuals and corporate bodies negatively. Laboratories, Libraries and ICT centres are affected by unstable power supply in the tertiary institutions. Research programmes of tertiary institutions are affected by poor energy supply, unstable water supply and poor internet services according to (Energypedia 2017). Adahal (2020) concluded that energy poverty remains a major problem, not just in Nigeria's tertiary institutions, but across the entire facet of Nigerian society, leaving in its trail unnecessary difficulties in the execution of simple tasks and grounding economic activities. However, it poses even more challenges in the universities where it has become a barrier to effective research, student learning and the general smooth running of tertiary institutions.

Poor implementation of Community service

The community service programme of tertiary institutions appears to also be affected by the current energy crises in the various tertiary institutions in Nigeria. Community service programmes of tertiary institutions are social and economic projects that are designed to serve the community purposely in the fields such as health, social service, environmental protection, education, urban and rural redevelopment, welfare, recreation, public facilities, public safety, and child care. Community service programmes are organized projects, and supervised activities that are a direct benefit to the community and are designed to improve the welfare of the whole community (Lawinside, 2024).

The community service programme is the third cardinal programme of tertiary institutions. A community service programme is an organized and planned service programme of higher institutions for the benefit and betterment of their host community. Community service programmes of higher institutions are community-inclined services initiated by the institutions to develop the communities. Community services of higher institutions are services provided by institutions to benefit the community people (Ogunode, Iyabode & Olatunde-Aiyedun, 2022). Community service programmes of tertiary institutions are geared towards the socioeconomic development of the host communities and problem-solving (Musa, 2022).

The implementation of the community service programme of universities in Nigeria is affected by unstable power supply (Ogunode, et al 2022). Community service programme implementation requires the availability of adequate and stable power supply. The instabilities in the power distribution to the various tertiary institutions have hampered the development of community service programmes in Nigeria. Information Communication and technology facilities, internet services and service production facilities all need a stable power supply to function and to be able to provide quality and effective community service programmes to the host communities. For instance, at the University of Benin, Ohajianya, Abumere, Owate, and Osarolube (2014) lamented that the non-availability of electricity put a strain on the university, students and staff as they resorted to using solar-powered facilities and generators. The health centre at Ugbowo Campus was worst hit as officials do not have access to power from 10 pm after the generating set is switched off. The generator is on for three hours, and this forces workers on night duty to use torch lights. Strategic offices, including the secretariat of the Academic Staff Union of Universities, ASUU, run on generators and host communities are affected by unstable supply of power.

Increase in School Fees

The increment in the tariffs and other related factors are responsible for the increment in the tertiary institutions' fees nationwide. Many Nigerian tertiary institutions have increased their school fees due to an increment in the operational cost that is caused by factors such as increment in energy tariffs and inflation. Tertiary institutions in Nigeria including the University of Benin (UNIBEN), Edo State; University of Abuja (UNIABUJA) and the University of Maiduguri (UNIMAID) have increased their fees due to increment in operational cost of the various institutions across Nigeria such as increment in energy tariffs, inflation and subsidy removal. Ogwo, (2023) asserted that Nigerian universities are drastically increasing fees this year owing to the recent subsidy removal that has shot up their operational costs in recent weeks. The situation has led to a fresh spike in prices of all items, further heaping pressure and taking its toll on tertiary institutions. BusinessDay as reported by Ogwo, (2023) investigations revealed that several universities have commenced hiking fees. The University of Maiduguri recently increased its registration fees for new students by 385 percent from N39,000 in 2022 to N150,000. Also, the University of Benin, in Edo State, recently hiked the registration and tuition fees by 38.4 per cent for science courses and 40 per cent for non-science courses. The university management has asked students to pay N190,00 for science students, as against N73,000, about a 38.4 per cent increase, while non-science students are to pay N170,000 against the usual N69,000, about a 40 per cent hike. Ogwo, (2023) quoted Ifeanyi Abada, chapter chairman of the Academic Staff Union of the University noting that the government has made it clear it no longer funds tertiary education. He said universities cannot afford to bear the high operational costs and are forced to increase tuition fees. Energy costs fuel subsidy removal and inflation are responsible for increased fees in the tertiary institutions. The institutions need to break even, hence necessitating the increase in various payable fees across tertiary institutions in Nigeria.

Conclusion and Recommendations

Constant energy supply is critical to the tertiary institutions' sustainability in Nigeria. A stable energy supply aids the effective implementation of teaching research and community service programmes and assists in the provision of academics. Tertiary institutions, staff and students need a constant power supply to carry out academic work and work effectively in the various tertiary

institutions. The tertiary institution needs a stable, uninterrupted and functional electricity supply to realize its objectives and add value to national development.

This paper assessed the impact of the energy crisis in the Nigerian tertiary institutions and the limited energy generation and distribution, corruption and non-generation of energy by tertiary institutions and **power system maintenance/ vandalism were identified as factors responsible for the energy crisis in the tertiary institutions**. Consumption of funds, poor implementation of teaching, research, community service and fee increments were concluded as the impact of the energy crisis on tertiary institutions in Nigeria. Based on the findings, the paper recommends the following;

1. The federal government should increase investment in the energy sector. The investment should cover the procurement of facilities to aid the distribution of power generated;
2. The federal government should direct all anti-corruption agencies to monitor funds allocated for energy sector development. Technologies should be deployed to curtain corruption in the energy sector.
3. The federal and state governments should mandate DISCOs to introduce a dedicated social tariff band with reduced rates for public tertiary institutions across Nigeria.
4. The federal and state governments should increase the funding of tertiary institutions across Nigeria.
5. Tertiary institutions should embark on independent Power Supply projects and Solar Power Supply projects that will provide constant power for the institutions.
6. The federal and state governments should work out a plan to establish Compressed Natural Gas, CNG, a facility that is climate-friendly in all tertiary institutions.

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