IMPACT OF ELECTRICITY SERVICES ON UNEMPLOYMENT IN NIGERIA

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ABSTRACT
This study empirically investigates the impact of electricity on unemployment in Nigeria for the period of 1970-2020 using time series data obtained from statistical bulletin of the Central Bank of Nigeria (CBN, 2021) and the National Bureau of Statistics (NBS, 2021). Autoregressive Distributed Lag (ARDL) technique was employed to test the short-run and long-run impacts. The study found evidence of a negative and statistically significant impact of electricity (megawatt per hour of electricity generation and consumption) on unemployment rate both in the short-run and long-run. However, there exists non-significant impact of electricity transmission losses on unemployment rate. On the basis of these empirical findings, the study recommends an urgentneed for the electricity distribution companies to step-up electricity supply to Nigerian firms in order to accelerate the growth of enterprises, enhance jobs creation and reduces unemployment. Increasing electricity access to business firms should involve upgrading and expansion of the national grid particularly the electricity generation capacity and distribution network. The transmission company of Nigeria should ensure that transmission lines are rehabilitated in order to reduce power and technical faults in existing transmission and distribution infrastructure so as to increase generation capacity. When these are achieved, path to industrialization and economic growth to curtail unemployment are guaranteed.

KEYWORDS: ARDL model, Consumption, Electricity, Generation, Unemployment
JEL CLASSIFICATION Codes: E2, E12

1. INTRODUCTION
Electricity supply is central to economic growth and employment generation of any nation. There is scarcely any aspect of human development that does not require modern energy supply in one way or the other. Energy aids the basic needs of man (Energy Commission of Nigeria and United Nations Development Programme, 2015).Energy is an important factor input for production, conversion, processing and commercialization in all sectors. This makes electricity an essential commodity for all industrial types. Hence, increased energy consumption is an index of increase in economic activities, and by inference an improvement in economic development. In the development literature, reliable electricity supply is an important infrastructure in accelerating the growth of industries and by extension the economy (Uchechukwu &Ugwuoke, 2024). Hence, most economists today agree that industrial sector is a necessary ingredient for stimulating economic growth and employment opportunities in all societies.

However, the unemployment situation in Nigeria has reached a very alarming proportion with attendant social, economic, political and psychological consequences. It contributes to low gross domestic product (GDP), poverty, increase in rural-urban migration, waste of human resources, high rate of dependency ratio, depression, and all sorts of criminal behavior such as armed robbery, kidnapping and prostitution. In recent times, increasing unemployment of the highly educated professionals such as accountants, lawyers and engineers, among others, has worsened the situation (Amassoma & Nwosu, 2013; Sylvester, 2020). A survey by National Bureau of Statistics (NBS) (2013) indicates that Nigeria's unemployment stands at 25.9% as at 2013, as compared to 23.12% in 2012 and 23.9% in 2011. It was projected to rise further in the subsequent years. Presently, unemployment rate in Nigeria has increased to 33.3% in the second quarter of 2024 from 31.1% in the fourth quarter of 2023 (NBS, 2024).

In curtailing the rate of unemployment in Nigeria, the Federal Government of Nigeria has adopted various policies and programmes for over four decades. Establishments of Better Life for Rural Women and Family Support Programme, Community Bank, DFRRI, National Directorate of Employment (NDE), and People's Bank, were among the more prominent programmes aimed at addressing various manifestations of unemployment. Besides, National Economic Empowerment and Development Strategies (NEEDS) was also established towards achieving creation of employment and reduction of poverty (Iyamu & Ojeaga, 2015). None of these programmes have generated significant, lasting and sustainable positive effects to forestall socio-economic problems of unemployment in Nigeria. National unemployment rose to 9.87 million in the second quarter of 2024 (NBS, 2024).

Despite the significance of reliable electricity to hinder the socio-economic problems of unemployment, the Nigeria electricity sector has been characterized with consistent poor and irregular quality power supply. The electricity supply to the manufacturing sector was below 100 Mega Watts per hour between 1970 and 1980 (NBS, 2014). It increases astronomical until it peaks in 1982. Thereafter, there have been gradual and consistent fall in the electricity consumption through 2014. Thus, to address the challenges faced by the industrial sector in Nigeria, the impact of electricity supply has to be evaluated as earlier noted that energy is a major drive of the industrial sector's growth. To support this notion, National Bureau of Statistics (2024) confirms that the decline in the Nigeria manufacturing sector's growth was largely attributed to infrastructural problem, especially electricity supply, as only 51.1 and 53.1 per cent of the manufacturing sector's energy needs were met in 2022 and 2023 respectively.

In spite of the foregoing, a considerable amount of research attentions on the subject have established evidence of inverse relationship between the study variables. Earlier studies found that increase in the consumption of electricity will drive investment and boost economic activities thereby reducing the level of unemployment. Indeed, many of the earlier studies showed that significant and inverse relationships do exist between the study variables while some studies argued to the contrary. Yet, clear consensus has not emerged. The research implication is that holistic relationships between the variables may be blurred therefore drawing clear-cut conclusion might be complicated. Though, electricity-unemployment nexus has been conducted; yet earlier works have not explored the role of control variables that is macroeconomic factors (population growth and interest rate) in the relationship between electricity and Nigeria unemployment rate. This is the motivation behind this study. Hence, this study seeks to empirically investigate the impact of electricity on unemployment in Nigeria holding macroeconomic factors fixed in order to establish a true link between the variables.To actualize the objective, the study is organised into five sections. In the first section, excellent background to the study is introduced. Literature reviews are provided in second section. Section 3 looks at methodology while results are analysed and discussed in section 4. Section 5 concludes and offers policy recommendations.

2. LITERATURE REVIEW

2.1Theoretical Literature

The outstanding theories of this study include the Classical Economic theory, Keynes theory and Solo Growth theory.

2.1.1 The Classical Economic theory of Unemployment

The classical economic theory as analyzed by Pigou (1933) assumes that the economy is self-regulating and that government intervention is not necessary. The theory argues that supply creates its own demand meaning that the production of goods and services will automatically generate enough demand to absorb them while wages and prices will adjust to changes in supply and demand. The classical theory provides a framework for understanding the benefits of free markets, including the efficient allocation of resources and the promotion of economic growth. It emphasizes the importance of economic incentives and the role of entrepreneurship and innovation in driving economic growth and job creation. However, classical economic theory ignores the role of aggregate demand and does not provide a clear mechanism for explaining the impact of infrastructure on economic activity, which can make it difficult to develop effective policies to address unemployment.

2.1.2 Keynes Theory of Unemployment

Keynes theory is a macroeconomic theory of total spending in the economy and its effects on output, employment, and inflation. It was developed by British economist John Maynard Keynes during the 1930s. The theory emphasizes the importance of aggregate demand in determining economic activity and argues that government intervention is necessary to stabilize aggregate demand and promote economic growth. According to Keynes, unemployment occurs when aggregate demand is insufficient to create jobs for all those who want to work and the economy is in a state of equilibrium, but at a level of output that is below full employment.

2.1.3 Solow Growth theory

Solow Growth theory, developed by Nobel Prize winning economist Robert Solow in 1957, is a neoclassical economic growth model that explains long-run economic growth as a function of technological progress, population growth, and saving rates. The model focuses on the long-term growth of an economy and shows how depreciation and investment eventually reach a steady state as technology advances, meaning it determines a country's ratio of capital to its labor. In the context of electricity and unemployment, Solow growth model provides a framework for understanding long-term economic growth with the role of technological progress in driving growth. It highlights the importance of institutional factors in determining economic growth. However, the theory overemphasizes the role of technological progress and neglects other factors such as demand and institutions. It ignores short-term economic fluctuations which are often characterized by high unemployment and reduced economic activity.

2.2 Empirical Literature

A plethora of researches (Mary, Rilwan& Joseph, 2023; Ovikuomagbe&Olusola, 2023; Olufunmilayo et al., 2019; Hlalefang et al,. 2019; Bekmez&Ağpak, 2016; Abdul-Khaliq, Soufan, &Shihab, 2014; Amassoma&Nwosu, 2013; Ozei, Sezgin, &Topkaya, 2013; Muhammad, Inuwa, &Oye, 2011; Khan & Khan, 2010; Ghosh, 2009; Dinkelma, 2008; Shiu& Lam, 2004; Aqeel& Butt, 2001; Cheng, 1998; Ebohon, 1996; Yu &Jin, 1992; Akarca& Long, 1979) have examined the impact of electricity on unemployment. Nearly all reviewed studies concede to the fact that adequate availability of electricity is negatively related to unemployment. To the best of the researcher's knowledge, this study is the first that cover the period of 1970 – 2020 and control macroeconomic variables (population growth, interest rate and wage rate) on the strength of their contingency effects. Having empirically reviewed the

related work, it is worthwhile to point out that the earlier studies so far provide evidence of negative relationship with respect to energy-unemployment nexus. However, there is a noticeable death of control variables in the relationship between electricity and unemployment rate. The research implication is that holistic relationships between the dependent and independent variables may be blurred and drawing clear-cut conclusion might be complicated. Therefore, further study is necessary in order to establish a true link between the studies variables and keep the results reasonable with stronger conclusion.

3. METHODOLOGY

3.1 Theoretical Framework

This study is anchored on the Keynes theory as it surmounts the weaknesses of both Classical economic and Solow growth theories. John Maynard Keynes in 1936 emphasized the importance of aggregate demand in determining economic activity, which is critical in the context of electricity and unemployment. Besides, Keynesian theory is more relevant to short-term economic fluctuation. This, therefore, suggests that government intervention is necessary to bring stability to aggregate demand in order to foster economic growth and drive job creation.

3.2 Model Specification

The Keynesian model of unemployment is expressed by the following equation:

$AD = C + I + G + (X - M)$…….. (3.1)

Whereas, AD = Aggregate demand, C = Consumption, I = Investment, G = Government spending, X = Exports, M = Imports. In the context of electricity and unemployment, the above equation ismodified to suit the study to have the following functional equation:

$UNM = f(elect, pgr, intr)$…….(3.2)

Where UNM in the original Keynesian model is unemployment rate; elect is electricity and; pgr is population growth rate. However, the electricity is further decentralized into electricity generation, electricity consumption and electricity transmission loss. Therefore, the restatement of equation 3.2 to reflect the subsidiary variables of electricity like electricity generation, electricity consumption electricity transmission loss as well as introduction of interest rate as an explanatory variable (being one among other that determine the investment decisions of firm) give rise to specification of model as:

$UNM = f(EGen, ECon, ETran, Pgr, Intr)$ …….(3.3)

Therefore, restatement of equation 3.3 is expressed as:

$UNM = EGen + Econ + ETran + Pgr + Intr$……. (3.4)

The econometric model of equation 3.4 to account for white noise disturbance error term is expressed as:

$UNM_t = \beta_0 + \beta_1 EGen_t + \beta_3 ECon_t + \beta_2 ETran_t + \beta_4 Pgr_t + \beta_5 Intr_t + \varepsilon_t$…… (3.5)

3.3 Techniques and Estimation Procedures

Firstly, the variables employed in the study are subjected to stochastic investigation in order to determine the application of the appropriate estimation technique to be used for analysis. The complementary test of ADF and PP unit root tests was used in this study, in preference to the Augmented Dickey-Fuller (ADF) and the Phillips-Perron (PP) tests. The ADF unit root test was complemented by the PP unit root test for the reason that PP is generally considered to have a

greater reliability than the ADF due to its robustness in the midst of serial correlation and heteroscedasticity (Hamilton, 1994). Therefore, the unit root model was specified with both trend and intercept as:

$\Delta UNMt = \alpha_0 + \beta_1 UNM_{t-1} + \beta_2 T + \sum_{i=0}^{n} \varphi\, i\, \Delta UNM_{t-1} + \varepsilon_t$ ..... (3.6)

Where, β_0, β_1, $\beta_2$and $\varphi i ... \varphi_n$ are parameters to be estimated, and ε_t is the disturbance error term.

The unit root test was followed by cointegration test using the ARDL Bound test due mainly to mixture of stationary and non–stationarity of series for the variables specified in the model(that is, 1/0 and I/1). Thus, ARDL bound test model is specified as:

$\Delta UNM_t = \phi_0 + \delta_1 UNM_{t-1} + \delta_2 EGen_{t-1} + \delta_4 ECon_{t-1} + \delta_3 ETrans_{t-1} + \delta_5 Pgr._{t-1} + \delta_6 Intr._{t-1} + \sum_{i=1}^{q} \beta_{1i} \Delta UNM_{t-i} + \sum_{i=1}^{q} \beta_{2i} \Delta EGen_{t-i} + \sum_{i=1}^{q} \beta_{4i} \Delta ECon_{t-1} + \sum_{i=1}^{q} \beta_{3i} \Delta ETrans_{t-i} + \sum_{i=1}^{q} \beta_{5i} \Delta Pgr._{t-i} + \sum_{i=1}^{q} \beta_{5i} \Delta Intr._{t-i} + \varepsilon_t$ ..... (3.7)

Where model variables are as defined earlier, Δ is a first differenced operator, β_0 is an intercept term, β_1 to $\beta 6$ are short run coefficients of the explanatory variables, δ_1 to δ_6 are long run parameters of the explanatory variables, q being the optimal lag orders and $\varepsilon_t$is error term. Consequently, the establishment of long-run equilibrium relationship among the variables under the study connotes that the ARDL model of the cointegrating vector is re-parameterized into dynamics model often regarded as ECM (error correction model). This implies the tendency of deviation of either jointly or independently from the established long-run equilibrium state by variable(s) which can be corrected by the degree of adjustment and such degree of adjustment is captured by the short-run equilibrium dynamics model otherwise referred to as ECM (error correction model) (Ude, 2018). Therefore, the ECM model is specified as;

$\Delta UNM_t = \beta_0 + \sum_{i=1}^{n} \beta_1\, \Delta UNM_{t-1} + \sum_{i=1}^{n} \beta_2\, \Delta EGen_{t-1} + \sum_{i=1}^{n} \beta_3\, \Delta ETrans_{t-1} + \sum_{i=1}^{n} \beta_4\, \Delta ECon_{t-1} + \sum_{i=1}^{n} \beta_6\, \Delta Pgr_{t-1} + \pi_1 ECT_{t-1} + \varepsilon_{1t}$ ..... (3.8)

Consequently, the estimated models specified in equation 3.6 through equation 3.8 was subjected to post estimation residual diagnostics tests to determine whether or not the obtained results from models beings estimated holds good for policy uses by ensuring the obtained result of estimated models from such problems that lead to spurious regression results.

3.4 Data Source

The study used secondary data from 1970 to 2020. The time series data for electricity obtained from statistical bulletin of the Central Bank of Nigeria (CBN, 2021) was used in the study; unemployment rate was sourced from National Bureau of Statistics (NBS, 2021). The choice for the period of the study was guided by the availability of dataset from the various sources.Theoretically, the coefficients of the explanatory variablessuch as EGen, Econ, ETran are expected to inversely or negatively relate to the rate of unemployment as such, their impact on unemployment rate is expected to have negative relationshipwhile, the coefficients of variables like Pgr and Intr rate expected to have positive relationship with unemployment rate in Nigeria; thus, their impact on unemployment rate in Nigeria is expected to be positive.

4. RESULTS AND DISCUSSION OF FINDINGS

4.1 Descriptive Statistics

Descriptive statisticsin Table 4.1 presents the minimum, maximum, mean, median, standard deviation, skewness, kurtosis and Jarque-Bera analysis. The study used 51 years secondary data from 1970 – 2020 for analysis. The minimum score ranges from 1.50 to 10.00 score while

maximum was 36.9. In addition, variables standard deviation shows low variability to the mean and median of all variables. For instance, population growth rate had the greatest variability standard deviation (0.078) which was thirty-three times variability to its mean and median scores. What this implies is that all variables means are good representation of sample data. The secondary data are normally distributed as all variables skewness lie between -0.9 and 0.9 respectively while kurtosislie between -3.0 and 3.0, and Jarque-Bera p-values are statistically significant suggesting that the score distributions are normally distributed. Only electricity transmission (Jarque-Bera) was slightly away from normality.

The results further indicate that during the period of study, unemployment rate had mean and median scores of 14.71 and 14.70 signifying a fairly high increase in the rate of unemployment among Nigerians. The implication is that consumer spending on essential services such as electricity services will be constrained. High unemployment rates can as well drive rural-urban migration, putting pressure on urban infrastructure and services. However, electricity generation and consumption indicates a relatively low extent of service provision and consumption with a mean score of 6.62 and 6.17. Interest rate recorded the highest mean of 25.75 while population growth rate and electricity transmission had mean of 2.59 and 6.57 respectively. This reflects a slightly high increase in the population growth rate and electricity transmission loss.

Table 4.1: Descriptive Statistics

	UN_RAT_	INE_CON	INE_GEN	INE_TRAN	INT_RATE	P_G_RATE
Mean	14.71775	6.173614	6.629537	6.570800	25.75550	2.592000
Median	14.70000	6.028311	6.526716	6.618965	25.92000	2.590000
Maximum	24.30000	7.989560	8.729074	8.446878	36.90000	2.760000
Minimum	1.500000	5.816813	6.460663	4.466138	10.00000	2.470000
Std. Dev.	7.183828	0.506062	0.498922	0.590442	5.365372	0.078257
Skewness	0.321824	-0.190621	-0.199354	-0.491617	0.368988	0.308340
Kurtosis	1.782476	1.613707	1.476196	2.409048	1.306353	1.076358
Jarque-Bera	3.161076	0.490946	0.722230	34.01075	3.751946	2.055684
Probability	0.205864	0.782334	0.696899	0.000000	0.153206	0.357778
Sum	428.7100	286.9446	305.1815	262.8320	830.2200	103.6800
Sum Sq. Dev.	2012.688	9.987836	9.708003	13.59626	1122.701	0.238840
Observations	51	51	51	51	51	51

Source: Authors' computation (2025).

4.2 Estimation of the Results

Table 4.2 (panel A and B) presents the result of short run and long run relationship between unemployment (UNM) and the examined explanatory variables (InECon, InEGen, InETrans, Pgr and Intr) as specified in Autoregressive Distributed Lag (ARDL) model and error correction model (ECM) having satisfied pre-estimation condition based on the complementary test of Augmented Dickey–Fuller (ADF) and Philips–Perron (PP) framework as well as non-existence of cointegration among variables.

Table 4.2: Regression Results

Panel A: Short–run Coefficients - Dependent variable is UNM

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(INE_CON)	-7.838140	4.111733	-1.906286	0.0504
D(INE_GEN)	-7.192132	1.896455	-3.792408	0.0006
D(INE_TRAN)	2.140049	0.933924	2.291459	0.0289
D(INT_RATE)	0.147544	0.116908	1.262053	0.2163
D(P_G_RATE)	35.586478	16.581333	2.146177	0.0398
CointEq(-1)	-0.434804	0.132036	-3.293072	0.0025

Cointeq = UN_RAT_ - (17.1307*INE_CON -17.1859*INE_GEN + 5.3993 *INE_TRAN + 0.1338*INT_RATE + 67.2194*P_G_RATE -192.8306)

Panel B: Long–run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INE_CON	-17.130726	7.129873	-2.402669	0.0225
INE_GEN	-17.185932	9.288802	-1.850177	0.0738
INE_TRAN	5.399301	3.403892	1.586214	0.1228
INT_RATE	0.133829	0.370357	0.361352	0.7203
P_G_RATE	67.219397	28.102565	2.391931	0.0230
C	192.830646	56.375644	3.420460	0.0018

Source: Authors' computation (2025).

From table 4.2, it is revealed that, electricity consumption (InECon) and electricity generation (InEGen) have a statistically significant and negative impact on unemployment rate both in the short and long–run in line with apriori expectation as a unit increases in the rate of electricity consumption (InECon) and electricity generation (InEGen) indicates7.84and 7.19 fall in the level of unemployment in Nigeria in the short–run and long-run at 17.13 and 17.18respectively. In contrast, electricity transmission loss (InETran), interest rate (intr), and population growth rate (Pgr) showed a positive impact on unemployment rate in the short and long–run. This suggests that, one unit increase in these variables signifying 2.14, 0.14, 35.5 and 5.39, 0.13, 67.2 rises in the level of unemployment in the short–run and long–run respectively.
Furthermore, the result of error correction model (ECM) associated with the long run estimate in the panel (A) short run is -0.4348 with p-value 0.0025 implies that the necessary conditions binding the error correction model (ECM) are satisfied and fulfilled. The error correction term represents the speed of adjustment to the initial level of long equilibrium should there be any form of deviations or disequilibrium from already established long run equilibrium path. As

such, any disequilibrium in unemployment rate (UNM.) resulting from a deviation in the preceding year, would be corrected by approximately 43.5 per cent in the following year to restored back equilibrium level in the long run. Theoretically, the error correction term (ECM) should lie between zero (0) and negative integers. Consequently, the negative coefficient depicted in the table 4.2 simply means that, the convergence or ECM is oscillatory, that is, the measures (electricity generation, consumption, transmission loss) to reduce unemployment rate in Nigeria may take fairly short time to achieve a steady state unless the factors that created deviations to the model in the long run are properly and adequately addressed. However, in the long run, the constant term is estimated at 192.83065 with probability value of 0.0018 suggesting that the rate of unemployment (UNM) in a numerical term is 192.8365 during the period under this study when the explanatory variables are held constant. The implication is that the level of unemployment prevailing in the country is 192.8365without the influence of the predictors in the estimated model. This result empirically substantiates the Keynesian postulation that an economy can never operate at full employment and that certain level of unemployment is imminent in the country.

4.3 Discussion of Findings

The objective of this research was to explore the impact of electricity on unemployment rate. A set of hypotheses were tested using regression analysis to establish the connection. The Autoregressive Distributed Lag (ARDL) analysis found statistically significant and negative relationship between unemployment rate and electricity service (megawatt per hour of electricity generation and consumption except transmission losses) as macroeconomic factors (population growth and interest rate) were controlled. Electricity generation, consumption and population growth rate are the strongest predictors of unemployment rate. These results provide compelling evidence in support of the impact of electricity on unemployment rate. These results are certainly in parallel with economic theory that electricity decreases unemployment. Specifically, the finding supports prior writings on the importance of infrastructure (electricity service) and unemployment rate such as Olufunmilayo, Henry, Oluwatoyin and Osabohien (2019), and Osabohien, Matthew, Aderounmu and Olawande (2019), Apergis and Salim (2015), George and Oseni (2012), Khan and Khan (2010), Dinkelma (2008) and Aqeel, Mohammad and Butt (2001).The statistically significant and negative impact of electricity on unemployment rate affirms the view of Hlalefang, Nwabisa, Clement, Izunna and Siyasanga (2019) and Onyeisi, Odo and Attamah (2016), who establish some evidence that electricity infrastructure is necessary to curtail the menace of unemployment rate and promote economic growth

It appears from the aforementioned open literature that much attention has been paid to the study of electricity and unemployment. Interestingly, a clear understanding of the degree of extent to which electricity impacts unemployment is essential and missing in a number of previous studies. This knowledge gap constrains the findings of the earlier studies. The present study, however, makes several noteworthy contributions to the findings of prior studies by providing a more comprehensive investigation that control macroeconomic factors in the energy-unemployment relationships.

5. CONCLUSION AND POLICY RECOMMENDATIONS

Based on the research findings, the following conclusion was drawn: there exist a significant and negative impact of electricity (megawatt per hour of electricity generation and consumption) on unemployment rate provided other macroeconomic factors (population growth rate and interest rate) are held fixed. In contrast, electricity (megawatt per hour of electricity transmission losses) has non-significant impact on unemployment rate when other

macroeconomic factors (population growth rate and interest rate) are also held constant. Therefore, the study recommends the followings strategies to ensure reliable electricity supply create jobs and stimulate economic development:

i. The Nigerian Electricity Regulatory Commission should take cognizance of the significant of electricity (megawatt per hour of electricity generation, consumption and transmission losses)in the context of electricity and unemployment to promote economic growth and drive job creation. This is because electricity variables (megawatt per hour of electricity generation, consumption and energy transmission losses)) are found to have a strong power in predicting unemployment rate in Nigeria.

ii. Specifically, the electricity generation and distribution companies should as a matter of urgency intensify efforts to increase electricity supply to Nigerian firms in order to accelerate the growth of enterprises, enhance jobs creation and reduce unemployment. Increasing electricity supply should involve upgrading and expansion of the national grid particularly the electricity generation capacity and distribution network.

iii. The transmission company of Nigeria should ensure that transmission lines are rehabilitated in order to reduce power losses. This is significant for enhancing the grid's efficiency, operations and cost savings to both utility companies and end users in order to ensure a reliable power supply which is crucial for economic growth, job creation, and unemployment reduction.

iv. In addition to the existing power plants, new power plants should be developed (gas, coal, hydro) to increase generation capacity and reduce pressure on the national grid occasioned by persistent increase in the population. When this is achieved, employment in power generation, transmission and distribution is guaranteed, entrepreneurs are also empowered to establish and expand businesses in SMEs while rural-urban migration and unemployment are drastically reduced.

v.Finally, study also recommends that renewable energy sources (solar, wind and hydro) should be integrated into the national grid while at the same time, mini-grids and off-grid solutions should be well implemented for rural areas. Investment in electricity infrastructure both in the rural and urban areas will stimulate economic growth and curtail monster of unemployment.

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