

**International Journal of Arts and Humanities
(IJAHA)
Bahir Dar- Ethiopia**

Vol. 4(1), S/No 13, January, 2015:148-167
ISSN: 2225-8590 (Print) ISSN 2227-5452 (Online)
DOI: <http://dx.doi.org/10.4314/ijah.v4i1.11>

**An Analysis of the Policy Framework on Electricity in South
Africa: A Public Interest Approach**

Okafor, Chukwuemeka, D. Admin
School of Public Administration
University of Fort Hare

Okechukwu, Elizabeth, Ph.D.
Department of Business Administration,
Enugu State University of Science and Technology
Enugu

&

Iloanya, Kenneth, MPA
Department of Public Administration
Nnamdi Azikiwe University, Awka
Anambra State, Nigeria

Abstract

The policy framework on electricity in South Africa includes government's intention to provide quality and affordable electricity to the people. This article focuses on the issues that affect electrification and their impact towards the goal of achieving universal access to quality and affordable electricity in the country from a policy perspective. The provision of electricity to the poor and previously disadvantaged communities is a matter of social welfare in the country. Hence, the electricity-

related policy issues are examined in the context of public interest. In South Africa the identification of limited availability of electricity as a public problem by the post 1994 ANC government has led to an integrated policy framework which focuses on balancing economic concerns with social and environmental considerations. The methodological approach allows for an in depth textual study on the post 1994 electricity policy documents and the examination of issues relating to the provision of quality and affordable electricity to the people, especially the previously disadvantaged South Africans. The article posits that good governance has enabled for the identification of issues relating to sustainable public interests. These public interests include social equity, poverty alleviation and environmental sustainability and government also using public sector agencies to play key roles in service delivery. Through this article, the author intends to make a contribution towards the body of knowledge pertaining to the niche areas of poverty alleviation and socio-economic development in the discipline of public administration.

Key words: Electricity, universal access, reconstruction and development, social equity

Introduction and Background

Prior to the inception of democratic government in 1994, South Africa had an extremely energy-intensive economy, a world class electricity supply industry in the form of the state utility Eskom and a 55% reserve margin due to over-building in the 1980s (Bekker, Eberhard, Gaunt &Marquard, 2008:3126). Electricity was the engine of industrial and economic development though with less social significance. Economic and socio-economic considerations drove the development of the electricity sub-sector (Gaunt 2005: 1310). From the basic need for lighting, heating etc, electricity was made the dominant form of energy for stationary application and the railways. Also during the 1970's and 1980's spurred by political pressures the Electricity Supply Commission (Eskom) extended subsidized supplies to farms and rural service centers. The justification was to keep farmers in business and extend service supplies to the rural areas of socio-economic importance (Gaunt, 2005:1310). However, the policy then was to provide electricity services to industrial installations, commercial and farm needs, the minority White areas and a few Black/mixed settlements to the exclusion of the majority Black population. Electricity policy was part of the general apartheid policy of racial differentiation in infrastructure provision (Bekker et al 2008:3125). This disparity was evidenced in the access to other basic infrastructural services including electricity.

According to Davidson and Mwakasonda (2004:32) only 36% of the South African population had access to grid electricity in 1993. This triggered the government's decision to fast-track electrification through the National Electrification Programme (NEP) initiated by the democratically elected government

in 1994. The National Electrification Programme (1994 - 1999) was undoubtedly the major policy reform with the greatest impact on electricity provision in South Africa, especially for the poor (Malzbender, 2005:9). The National Electrification Programme had its roots in the Reconstruction and Development Programme which was introduced by the ANC government when it came to power in 1994. With the democratic revolution of 1994 a great deal of policy emphasis was given to improvement in the electricity sub-sector. The first ANC led government adopted the Reconstruction and Development Programme (RDP). This was an integrated policy plan designed to re-distribute land, create employment, promote affirmative action, alleviate poverty and provide social amenities such as water and electricity etc to the people. According to Bekker et al (2008:3126) the 1996 population census indicated that only 58% of the country's population had access to electricity and only one in four non-urban Black South African household had access as opposed to 97% of the non-urban White households. Bekker et al (2008: 3126) further write that the main barriers to widening access to electricity in the late 1980's were institutional and political.

However, both barriers were swept away by the democratic transition in the early 1990's which provided not only a fundamental shift in the political landscape but also an unusual institutional environment for policy-making in the sub-sector. Also the 'Electricity-for-All' programme commenced at the same time that South Africa started going through political changes from apartheid to a broadly based democratic government. With the dismantling of apartheid structures in 1994 and the institution of democratic governance the policy framework on electricity assumed a radical and positive focus. Malzbender (2005:4) also writes that when the new democratic government came into power in 1994, South Africa's electricity policy saw a fundamental shift in focus. The new government placed developmental objectives at the forefront of its policies and the electricity sub-sector was no exception. Eberhard (2004:227) also admits that the shift in the political economy of South Africa in the 1990's helps explain the context of policy reform in the electricity sub-sector. Eberhard (2004: 227) further writes that the reforms in the electricity sub-sector in South Africa over the past years have taken place within a context of radical transformations in the country. Gaunt (2005:1310-1311) also writes that the desire to implement social development and poverty alleviation programmes by the new democratic government was a serious drive to policy reforms in the South African electricity sub-sector.

The basic assumption in Public interest discourse is that regulation is supplied in response to the demand of the public for the correction of inefficient and inequitable market practices. The markets are characterized by a lot of inefficiencies, fragility, inequities and distortions and if left alone public interests may be continuously compromised (Pigou 1932: 1). Shafritz, Russel and Borick (2007:10)

also view that since Public interest is generally taken to mean a commonly accepted good, the phrase is used to further policies that are indeed for the common good and to obscure policies that may not be accepted as good. Public interest in the context refers to the concern, welfare and happiness of all or the majority in the society. This article discusses the policy framework on electricity in South Africa in line with sustainable public interests of social equity, poverty alleviation and environmental sustainability.

Post 1994 Electricity Policy Framework in South Africa

This section presents the post 1994 electricity policy framework in South Africa. The various policies are discussed with a view to understanding their contents.

White Paper on Reconstruction and Development 1994

The government White Paper on Reconstruction and Development (1994) provides the background for the post-apartheid electricity policy in the country. The RDP is based on the notion that reconstruction and development are parts of an integrated process. The RDP integrates growth, development, reconstruction, redistribution and reconciliation into a unified programme. The key to this link is an infrastructural programme that will provide access to modern services such as electricity...’ (White Paper on RDP, 1994: 8). It is upon this principle that the integrated electrification programme was developed. The RDP had a proposed electrification target of 2.5 million households by the end of 2004. Through the National Integrated Electrification Programme, government intends to address the electricity backlog created by several decades of apartheid regime in the country.

White Paper on the Energy Policy of the Republic of South Africa 1998

According to the Energy White Paper (1998:40) the electricity sub-sector inherited from the apartheid government is in many ways typical of present day South African economic infrastructure. It has highly sophisticated production and distribution capabilities developed under circumstances of economic isolation to meet the needs of the industrial sector and a privileged white minority. The energy needs of the majority, the possibilities of regional integration, and the challenges of global competition have only recently begun to be addressed (Energy White Paper, 1998:40). Policy issues in the sub-sector during several decades of apartheid were restricted to the needs of minority Whites and the industrial sector to the exclusion of the majority Black and Colored population. This therefore, precipitated the backlog issues that constitute the challenges in the sub-sector intended to be addressed by the post 1994 electricity policy. The policy challenges include:

- i. a high percentage of households in South Africa, and tens of thousands of schools and clinics are without access to electric power supply;
- ii. the distribution sector of the industry is highly fragmented with more than 400 distributors resulting in low efficiencies, high costs, wide disparities in tariffs, and financial viability problems in many distributors etc.

The immediate post-apartheid energy policy identified these challenges in the electricity sub-sector. The challenges are outcomes of previous government's principles and practices in the sub-sector. To address these challenges the policy identifies the following three cardinal objectives:

- i. to improve social equity by specifically addressing the energy requirements of the poor;
- ii. to enhance the efficiency and competitiveness of the South African economy by providing low-cost and high quality energy inputs to industrial, mining and other sectors and
- iii. to achieve environmental sustainability in both the short and long-term usage of natural resources (White Paper on Energy Policy, 1998:42).

These policy objectives are central to the government's commitment to addressing the imbalance in the sub-sector. The objectives are anchored on improving the welfare of the majority poor through electrification. The government equally believes that electrification is a central component of the RDP's infrastructural programme. This is in line with the proposed target of electrifying 2.5 million households by the end of the first decade as contained in the RDP document. The programme was estimated to require capital investment of about 2.5 billion per annum in the early years and government intended to co-ordinate the electrification programme through setting of realistic electrification targets, determination of allocation criteria and priority areas of electrification, ensuring allocation and management of funds, financing and subsidization of electrification projects, and determination of appropriate mix between grid and off grid technologies (White Paper on Energy Policy, 1998: 47-48).

In achieving the goal of universal access, government also recognizes that household access to adequate electricity for cooking, heating, lighting and communication is a basic need. On this ground, government was committed to implementing reasonable legislative and other measures within its available resources to progressively achieve universal household access to electricity in the country. On National Electrification Funding, government intended to establish a 'National Electrification Fund' to provide for electrification subsidies. The Fund would derive income from a combination of allocation from the electricity sub-sector, fiscal

allocations, grants, and any other appropriate sources (White Paper on Energy Policy, 1998:49).

The policy seeks to achieve an appropriate balance between meeting social equity, economic growth and environmental goals. This is in lieu of the lop-sided electrification policy which was implemented along racial considerations of electrifying the White minority population and denying access to the majority Black and Colored populations. The policy further pursued economic growth policies through electrification to the neglect of social and environmental considerations of eliminating energy poverty and achieving grassroots socio-economic development among the majority poor. The Energy Policy (1998) therefore aims to address the imbalance and also take a comprehensive approach in tackling other deficiencies in the sub-sector. The policy also sets the stone rolling in achieving the electrification goal of universal access in the country.

Electricity Basic Services Support Tariff (Free Basic Electricity Policy) 2003

According to the EBSST Policy (2003:6) the Government recognizes that the provision of electricity is primarily a social welfare function. This was why government intends to address the affordability issues of the newly connected poor households through a level of free basic electricity allocation. The policy provides for the allocation of 50kWh per month to be provided to all poor households connected to the national electricity grid (EBSST 2003:6). The important considerations in respect of the free basic electricity allocation include:

- i. free basic electricity provision will be phased in with preference being given to the poor at all times;
- ii. grid connected households will be provided with 50kwh of free basic electricity funded mainly through relevant intergovernmental transfers, subject to the contractual obligations between the service provider and the consumer being met, any consumption in excess of the set limit (50kwh) will be payable by the consumer;
- iii. in respect of grid-based electricity consumers, free basic electricity provision is intended to facilitate the provision of lighting, media access, limited ironing and water heating as basic electricity services;
- iv. where funding is received from the fiscus, through inter-governmental transfers, the provisions of basic electricity may be made to all qualifying households on a self-targeting basis by relevant service authorities in their respective municipal areas;
- v. the provision of free basic electricity services shall be limited to existing qualifying consumers, legally connected to both grid and non- grid electricity

systems, and those electrified through the National Electrification Programme;

- vi. consumers connected to non-grid systems, installed through the National Electrification Programme will receive a subsidy of up to 80% (or R48.00 per month connection) of the monthly service fee to provide access to non-grid systems, subject to the contractual obligations between the service provider and the consumer being met;
- vii. in respect of non-grid electricity, the free basic electricity provision is intended to facilitate the provision of basic lighting and basic media access;
- viii. where consumers are converted from non-grid systems to grid systems, conditions pertaining to the provision of free basic electricity in respect of the grid systems will apply. The service provider will be responsible for the transactional processes (technical, financial, administrative) (EBSST, 2003:9-12).

These provisions are central to the implementation of the Free Basic Electricity policy. The provision of 50kWh electricity enables the newly connected poor households' access to quality services at a certain level. This is because the provision 50kWh free electricity per month to the identified poor households is intended to contribute towards improved living conditions in the poor households.

On the funding of the Free Basic electricity allocation, the government offers two practical funding options. These include, paying for the EBSST from nationally collected revenue (fiscus), through transfers to Local Government, or paying for the EBSST by means of a cross-subsidy from high electricity consumers (EBSST, 2003:17).

- i. National Funding. It is recognized that the EBSST is a national policy and thus places the final responsibility for funding and implementation on the national government. Funding as a national responsibility entails the following:
 - enables the national government to implement a uniform approach to the EBSST country wide;
 - enables the national government to evaluate the EBSST against other national priorities, particularly other national re-distributive programmes;
 - enables the national government to manage the costs of the programme (particularly decisions of increase of allocations) in the light of macroeconomic conditions and national fiscal considerations;

- enables the government to manage directly any fiscal risk associated with policy;
- enables the government to match the allocation of funds directly to the cost of implementation (EBSST, 2003:17-18).

National funding of the EBSST is therefore, vital in terms of harmonizing resources in implementing a uniform policy across the country. Since the aim is to address affordability issues in the newly electrified households, it was recommended for the Provincial and Local Governments to be responsible for the funding through the Equitable Share allocation or any such fiscus grants to service authorities for all targeted consumers in their supply areas (EBSST, 2008:18). Funding the EBSST through cross-subsidies from financial more viable municipalities is also expedient in realizing the policy goals. It enables the municipalities in this category to finance the EBSST. The Free Basic Electricity policy was specifically designed to address affordability issues in the electricity sub-sector. The provision of 50kWh electricity to the poor connected households demonstrates the government's intention to address the electricity needs of the poor majority in South Africa.

Electricity Regulation Act 4 of 2006

The act was intended as follow up to the previous electricity power policies. It concerns establishing appropriate regulatory frameworks for the electricity sub-sector. It was intended to address identifiable obstacles in achieving the policy goal of universal access in the country.

According to the Electricity Regulation Act 4 (2006: 1) government effort in this direction involves the following:

- i. To establish a national regulatory framework for the electricity supply industry.
- ii. To make the National Energy Regulator of South Africa the custodian and enforcer of the national electricity regulatory framework.
- iii. To provide for licenses and registration as the manner in which generation, transmission, distribution, reticulation, trading and the import and export of electricity are regulated.
- iv. To regulate the reticulation of electricity by municipalities.
- v. To provide for matters connected therewith.

The Act was therefore, designed to address some identifiable deficiencies in the sub-sector and facilitate the government's intention to achieve the electrification goal of universal access in the country.

Electricity Pricing Policy 2008

According to the Electricity Pricing Policy (2008: 8) to place the Electricity Pricing policy (EPP) documents into perspective, it is necessary to summarize the electricity sector objectives as detailed in the White Paper (WP) of 1998. The objectives include:

- i. Improve social equity by addressing the requirements of the low income.
- ii. Enhance efficiency and competitiveness to provide low cost and high quality inputs to all sectors.
- iii. Environmentally sustainable short and long-term usage of our natural resources.
- iv. The right of choice of electricity supplier.
- v. Competition in especially the generation sector.
- vi. Open non-discriminatory access to the transmission and
- vii. Private sector participation in the industry (EPP 2008: 8)

The specific objectives also include: the provision of low-cost electric power, better price quality, financial viability, improved quality of service and supply (including security of supply), proper co-ordination of operation and investments and the attraction and retention of a competent work force (EPP 2008: 8)

In view of these, the government seeks to achieve an appropriate balance between meeting social equity, economic growth and environmental goals. The policy documents seeks to obtain a balance between several competing objectives of affordable electricity tariffs for the low income consumers and cost reflective electricity tariffs for all the consumers. The policy was further designed to facilitate the goal of achieving universal access to electricity by introducing an appropriate price regime in the sub-sector.

Policy Issues

The post 1994 electricity policy in South Africa focuses on the intention of government to address the electricity needs of majority South Africans. Prior to the institution of democratic governance and the demise of apartheid structures the electricity policy was crafted along the lines of racial exclusiveness in infrastructural development. The dismantling of apartheid regime and the institution of a democratically elected government of National Unity in 1994 opened vistas for a

paradigm shift in the electricity policy framework of the country. This article discusses the issues of electricity as a public problem, access and affordability of electricity, funding in line with the issues of social equity, poverty alleviation and environmental sustainability.

Public Problem

The post-apartheid electricity policy in South Africa is fundamentally concerned with addressing the electrification backlog created by several decades of apartheid government. The Reconstruction and Development agenda of the post-apartheid ANC government amongst other issues was developed in the context of re-distributing resources through the provision of basic needs such as electricity to the previously disadvantaged. In the principle of the Reconstruction and Development Programme nation-building links reconstruction and development and the key to this link is an infrastructural programme that will provide access to modern services such as electricity.... This programme will both meet basic needs and open up previously suppressed economic and human potentials in urban and rural areas (White Paper on RDP, 1994: 8). The National electrification programme thus, emanates from the policy issues of reconstruction, development and re-distribution in the new dispensation. Electrification in the context was identified as a public problem since government was challenged by the fact that majority of households and tens of thousands of schools and clinics do not have access to electric power. The Integrated National Electrification Programme was basically designed to address the electrification backlog which confronts the government. Salient issues in this context include:

- i. addressing the electrification backlog in the country;
- ii. improving social equity via re-distribution;
- iii. poverty alleviation through expanded access;
- iv. the need for improved efficiency especially in the distribution unit in the interest of majority poor consumers and other categories of consumers.

Access and Affordability

The post 1994 policy focus on electrification centres mainly on the issues of increased access and affordability. Government also focuses on maximizing the potential of the sub-sector to ensure efficiency, reliability and low electricity cost, with the central objective of achieving a balance between meeting social equity, economic growth and environmental goals (White Paper on Energy Policy, 1998:41; Electricity Pricing Policy, 2008:11). These issues are woven into the general objectives of the electricity sub-sector in the country.

Addressing electricity backlog concerns in the sub-sector in post-apartheid South Africa was fundamental to the government's strategic policy of 'electricity for all'. In addressing the energy imbalance in the domestic sector, we have embarked on an aggressive integrated National Electrification Programme which seeks to address the electrification backlog by 2012 (EBSST, 2003:2). The electrification for all programme is thus, rationalized in the context of achieving social equity and poverty alleviation through electrification. In view of this, the government is committed to making electricity accessible and affordable especially to the majority poor. Electricity as a means of social equity is part of the infrastructural re-distributive agenda of the post-apartheid government and is designed to achieve socio-economic equality between the previously disadvantaged majority and the advantaged minority South Africans. On the other hand, electricity is also viewed as a means of poverty alleviation. In this context, electricity contributes to socio-economic development of the poor/underprivileged thereby, highlighting the link between access to electricity and poverty alleviation. Addressing the backlog issue and pursuing access for all therefore, extends basically to households, schools and clinics that lacked access to electricity during the apartheid era.

In terms of affordability, government is also obliged to address the issue as it concerns poor households. According to the EBSST (2003:2) 'while the electrification programme is progressing well, we soon realized that there is a need to address affordability issues in electrified households'. Government in this regard identifies electric power as a basic service/public good which is to be supported by appropriate policing in respect of the poor households. The electricity policy seeks to address ways and means through which government policy can bring about relief to poor electrified households and ensure optimal socio-economic benefits from the National Electrification Programme (EBSST, 2003:2). The need to address affordability issues derives from the following:

- i. the identification of electric power as an essential public good; and
- ii. achieving maximum socio-economic benefits from the National Electrification Programme.

In view of this, the Electricity Basic Support Tariff (Free Basic Electricity) policy seeks to pursue government's social responsibility to the electrified households. As such government recognizes that the provision of free basic services is primarily a social welfare function which is the government's responsibility (EBSST, 2003:6). The government is therefore obliged to fulfil this responsibility in the context of addressing affordability issues of electrification through the provision of free basic electricity to majority poor households.

Sub-Sector Restructuring

Restructuring in the electricity power sub-sector is based on the acknowledgement of certain challenges that limit performance. The restructuring centres mainly on the distribution unit and is focused primarily on achieving the primary objectives of meeting aggressive electrification targets of ensuring world class supply quality and continuing to provide low and equitably priced electricity to all consumers (White Paper on Energy Policy 1998:43; Electricity Pricing Policy 2008:11). Restructuring in the distribution unit is also part of the general government's intention of promoting competition in the sub-sector and giving customers the right to choose suppliers (White Paper on Energy Policy, 1998:42; Electricity Regulation Act 4, 2006:3). The sub-sector restructuring is therefore predicated on the basic issues of achieving the general electrification goal of universal access to quality and cheaper electric power and to ensure government control of the distribution networks.

Funding

Funding of electrification within the context of the National Electrification Programme is a basic government responsibility. The Electrification Fund was designed to fund electrification targets (White paper on Energy Policy, 1998: 49; EBSST, 2003: 17). As regards the Free Basic Electricity Programme the policy states that 'it is recognized that the Electricity Basic Services Support Tariff (EBSST) is a national policy and thus places the final responsibility for funding and implementation on the national government' (EBSST, 2003: 17). Government therefore, undertakes funding through the nationally collected revenue (fiscus) and also by means of cross-subsidy from high electric power consumers. In view of this Government undertakes funding of electrification to:

- i. address the electrification backlog in the country;
- ii. implement the electrification programme as a means of poverty alleviation;
- iii. achieve equitability of distribution and service efficiency;
- iv. implement the electrification programme as a means of social upliftment;
- v. implement a uniform electrification programme throughout the country;
- vi. facilitate the general electrification goal of universal access to quality and cheaper electric power.

In summation, the policy issues are found focal in the public interest determination of the post 1994 electricity policy in the country. The identification of limited availability of electricity as public problem and a social welfare responsibility of the government enables for its proper placement on the public policy agenda.

Accessibility and affordability concerns connote efficient provision and at affordable cost especially in the interest of the majority poor. This is also intended through the 'Free Basic Electricity' policy which was designed to address affordability issues by providing 50kwh free-electricity per month to the electrified poor households. Sub-sector restructuring was geared towards achieving the general electrification goals and government undertakes funding as a basic welfare responsibility to the people.

Analysis of the Policy Issues

The policy issues of electrification derive from the concerns of the post 1994 ANC government to address the backlog created by previous apartheid governments through an integrated policy approach that balances economic issues with social and environmental considerations. The article further examines the electricity policy framework in the context of the issues that affect electrification in the country.

Policy Issues and Public Interest

The article examines the policy issues in the context of public interest. This is a public benefit perspective that is found central to the post 1994 electricity policy. The concern of the government to identify the imbalance and backlog issues contextually equates with the policy goal of achieving universal access to electricity in the country. The policy issues are thus, identified in terms of balancing the economic issues with environmental and social considerations.

South Africa possesses an energy intensive economy, a world class electricity supply industry that contributes magnificently to the economic development of the country (Bekker et al, 2008:3126). Due to previous political and institutional arrangements economic issues of electrification prevailed over social and environmental considerations. The social perspective recognizes the incidence of social inequality and poverty arising from the historical and social contexts of the country and the environmental concern also recognizes the use of uniform energy sources in order to avert indoor and industrial pollutions. The post-1994 electricity policy framework recognizes that these issues constitute public problem. The electricity policy is therefore designed to achieve social equity and poverty alleviation. The policy issues of electrification are identified in terms of balancing the potentials of higher economic growth and the social considerations of effecting improvements in the living conditions of the previously oppressed and marginalized majority poor South Africans. This electrification model of balancing economic efficiency and pertinent social considerations is unique (Van Horen& Simmonds, 1998:893). The novel model also leads to the adoption of decisions different from those taken in most conventional electrification programmes in developing countries (Gaunt 2005:1309). The policy commitment of the government enshrined in the RDP principles of 'meeting basic needs' results in the integrated electrification approach

designed to achieve social equity and poverty alleviation. The policy framework is therefore, strategic in terms of aligning crucial issues with public interest defined within the context of public good.

In the context, electricity is identified as playing a considerable role in achieving the socio-economic advancement of the majority poor through the provision of basic needs such as food, health, education etc. Such provisions open opportunities for employment creation at the micro level for the poor and also control the environmental impact arising from the use of different energy sources by the poor households. According to Tinto and Banda (2005:26) the post-apartheid energy paradigm shift identifies these pertinent concerns arising from the historical and social contexts of the country and aligns the issues in the public interest domain of 'electricity for all.

The twin issues of access and affordability are premised on the policy goal of universal access to electricity in the country. Electricity is recognized as an essential public good and access to electricity by everyone constitutes another means of achieving social welfare and poverty alleviation. Adam (2010:10) justifies this as the reason why access to electricity is viewed as an 'implied right' in the country. This implies that as an essential public good the government through adequate policy measures ensures that its provision is achieved; and that its provision contributes to the public interest by creating a condition for the socio-economic advancement of the majority poor. This is explained in terms of improving the conditions of living and welfare of the poor by providing opportunities in small scale businesses like baking, refrigerating and selling of cold drinks, sewing etc.

Accessibility and affordability of electricity in the reform context is guaranteed by government subsidy. Government strategically uses the subsidy on electrification to achieve the policy goal of universal access. This is basically imperative in terms of the social and environmental considerations of providing affordable electricity to majority poor households. Wentzel (2005:12) contends that subsidies... are justified if they produce gains in social welfare. The social considerations of achieving social equity and poverty alleviation through electrification is thus, sustained by the use of such government subsidies (funding through the fiscus). Government subsidy is the means of addressing the imbalance in electrification through widened access and enabling the connected poor households to afford electricity. It is another means of fulfilling the government's social welfare responsibilities in the interest of the majority poor through electrification.

The policy issues of access and affordability strongly sustained by the social concern of achieving social equity, poverty alleviation and clean environment through electrification enhances public interest in the sub-sector. This creates good governance and strong public participation in the electricity policy process. Public

participation in the electricity policy process provides a strong means of balancing and aligning the policy issues with public interest.

Impact of the Policy Issues

The policy issues are further examined in terms of their impact in the policy goal of achieving universal access to electricity in the country. The Integrated National Electrification Programme was designed to address the backlog issues in the sub-sector with the specific objective of addressing the energy requirements of the poor. According to the Bua Briefs (2012:1) only 36% of the South African households had access to electricity in 1994 leaving a backlog of over three million households which constitutes an estimated 64% of the households (urban and rural). Moreover 19,000 black schools (86%) and about 4,000 clinics were without electricity (D.M.E Progress Report, 2010). Addressing the backlog issues was the specific task of the National Electrification Programme which commenced in 1994 and was funded through government subsidies.

Within the first ten (10) years of the programme (1994-2004) an estimated 3,803.160 households signifying 71% of the population was connected to electricity (D.M.E Progress Report, 2010); and with about 300,000 connections per year an estimated 5,4m household connections between 1994-2011 has been achieved also signifying 83% connections/access (Bua Briefs, 2012:1). Moreover over the period, more than 12,000 schools and about 3,000 clinics have been electrified (D.M.E, 2010:3). Figure 1 and 2 shows electricity connections to households according to provinces. The rate of connections differs according to provinces. However, the level of connections is remarkable and shows great progress on household electricity access from 1994.

The electrification progress in the country in terms of the number of households, schools and clinics connected to both grid and non-grid between 1994 and 2011 are as follows:

- Over 5.4 million households were connected to the grid between 1994 and 2011.
- Close to 50,000 households were supplied with non-grid technology (Solar panels-Renewable Energy) in the period 2002 to 2011.
- More than 12,000 schools were grid connected from 1994-2011, and about 3 000 schools were electrified with non-grid in the same period.
- 345 clinics in deep rural areas were supplied with non-grid electrification from 1994-2011.

Source: Magubane (2012:5)

The above data shows the electrification progress in the country between 1994 and 2011. The data represents a summary of household grid and non-grid connections. The provision of non-grid electrification (Solar panels- Renewable Energy) has made it possible for many rural households, schools and clinics that are not connected to the national grid due to geographical hindrances (sparsely populated rural areas) to be electrified.

Table 1. The number of electrified households by Provinces

Province	Electrified Houses: Municipalities & Eskom
Eastern Cape	974 873
Free State	357 839
Gauteng	633 219
KwaZulu Natal	878 867
Mpumalanga	535 356
Northern Cape	130 135
Limpopo	915 098
North West	628 184
Western Cape	364 172
Total	5, 417 743

Source: Magubane (2012:5)

The table shows household electricity connections by Provinces between 1994 and 2011. By reasons of population and resources, some provinces have benefitted from the national electrification programme more than others. **Figure 2** below shows that the biggest backlog is in KwaZulu Natal, followed by Eastern Cape and Gauteng whereas the least is Northern Cape. The total number of backlogs amount to approximately 3.4million (informal 1.2m and formal 2.2m).

Table 2: Households without electricity by provinces

Province	Households without electricity in %
Eastern Cape	20%
Free State	6%
Gauteng	22%
KwaZulu Natal	24%
Mpumalanga	6.5%
Northern Cape	1.5%
Limpopo	10.5%
North West	5.5%
Western Cape	5%
Total	100%

Source: Adapted from Magubane (2012:9)

The current drive is to increase electrification from 81% to 92% by 2014 (Magubane 2012:1). However, going by the present connectivity rates, universal access will not be achieved in the next few years.

Achieving the goal of electrification in the country does not end with connecting the households. The introduction of 50kWh of free basic electricity per month to the newly electrified poor households was a need to address the affordability issues (EBSST 2003:2). The introduction of 50kWh of free electricity per month to the newly connected poor households is thus, assessed in terms of achieving the policy goal of universal access to electricity in the country. However, the 50kWh free electricity per month allocated to the identified poor households is insufficient to take care of lighting, cooking and other little domestic electricity needs. Lloyd, Cowan and Mohlakoana (2004:14) write that the least electricity needed to run a household is about 150kWh/month.

The foregoing shows an obvious impact on access and affordability in the context of public interest considerations of social equity and poverty alleviation. Addressing these issues through the Integrated National Electrification Programme and the Free Basic electricity approach has produced considerable impacts on ensuring the welfare of the majority poor households. The impact is evidenced in the contributions to improved living conditions in homes through the reduction of fire incidents, indoor pollution, improvements in health care and education through the use of modern equipments (Mathee&De Wet, 2001:21; Malzbender, 2005:13; Mvondo, 2010:89). It also contributes income to the households (Mvondo, 2010:86).

These have induced small scale economic activities for the welfare of the poor households who engage in baking, sewing, buying of food items such as cold drinks and vegetables and refrigerating for sale etc. On a larger scale, the electrification programme contributes to job creation and skills development in the rural areas. As at December, 2009 around 32,999 jobs were created through the electricity for all programme (Niez, 2010:8). Even though most of the jobs are casual or temporary they contribute to the welfare of the poor.

The policy issues of social equity, poverty alleviation and environmental sustainability impacts positively on the goal of achieving universal access to electricity in the country. The policy instruments of Integrated National Electrification and the Electricity Basic Services Support Tariff ensures that the policy goal of universal access is achieved by addressing the access and affordability concerns of the government. These considerations further result in welfare benefits to the poor. Such benefits are found to contribute to the socio-economic upliftment of the majority poor in the country.

Conclusion

A public interest approach to electricity policy in South Africa basically derives from a redistributive platform which is based on the recognition of lack of electricity as a public problem and its proper placing on the public policy agenda. This context further derives from the intention of the government to achieve a balance between the economic issues of electrification and the environmental and social concerns. These platforms are found to result in an integrated electricity policy framework developed by the post 1994 ANC government to achieve social equity by addressing the electricity needs of the poor and poverty alleviation through expanded access. The goal of achieving universal access to quality and affordable electricity in the country is also found to derive from the fundamental issues of improving social equity, poverty alleviation and environmental sustainability through the use of uniform energy sources in the poor households. Government acknowledges that electricity provision is a social welfare responsibility. This is demonstrated in the intention to address access and affordability issues through unique platforms characterized by public funding.

The policy issues of electrification examined in the public interest perspective show a unique model that derives from public welfare concerns. The concern of achieving social upliftment and poverty alleviation through electrification underscores government's commitment to fulfil its social welfare responsibility in the interest of the majority poor thereby, achieving a balance between the policy issues and public interest. The impact is found in expanded access to about 89% of the population between 1994 and 2014 and the socio-economic outcomes of improving social well-being through access to basic needs such as food, water, education, health

etc. Fundamental to this is the policy framework that promotes and sustains public interest in electrification through good governance. This is thus, evidenced in the identification of policy issues in line with sustainable public interests and government using public sector agencies to achieve the goal of universal access of electricity in the country.

References

- Adam, F. (2010). *Free Basic Electricity: A better life for all*. Johannesburg: Earth Africa
- Bekker, B. E., Gaunt, A. T. & Marquard, A. (2008). South Africa's rapid electrification programme policy, institutional, planning, financing and technical innovations. *Energy Policy* 36, pp. 3125-3137. Accessed on 5th March, 2013 from <http://o-www.sciencedirect.com.wam.seals.ac.za>.
- BuaBriefs (2012). Four million electrification connections. Accessed on 5th March, 2013 from <http://www.gcis.gov.za/content/resourcecentre/newsletters-magazines/buabriefs/2012/b>.
- Davidson, O. & Mwakasonda, A. (2004). Electricity access for the poor: a study of South Africa and Zimbabwe in energy for sustainable development, Vol. viii no 4. Accessed on 5th May, 2012 from <http://o-pdn.sciencedirect.com.wam.seals.ac.za>.
- Department of Minerals & Energy, Progress Report (2010). Increase of access to affordable energy for all. <http://www.etu.org.za>. Accessed on 20th July, 2012.
- Eberhard, A. (2004). The Political Economy of Power Reform in South Africa. Accessed on 18th June, 2012 from www.gcb.uct.ac.za/files/stamfordCUBBookchapterP215-b253_6pdf.
- Gaunt, C. T. (2005). Meeting Electrification's Social Objectives in South Africa and implications for developing countries. *Energy Policy* 33, PP. 1309-1317. Accessed on 15th June, 2012 from www.elsevier.com/locate/enpol.
- Lloyd, Cowan & Mohlakoana. (2004). Improving access to electricity and stimulation of economic growth and social upliftment. Accessed on 3rd May, 2013 from <http://www.eri.uct.ac.za>.
- Malzbender, D. (2005). Domestic Electricity Provision in the Democratic South Africa, University of Pretoria: AWIRU, CIPS.
- Mathee, A. De Wet, T. (2001). Rural electrification in South Africa. Implications for the health and quality of life of women. *Energia News* Vol. 4, No 4, 2001. Accessed on 25th May, 2013 from <http://www.energia.org>.

- Mugabane, N. (2012). Electrification overview. Department of Energy. Accessed on 2nd June, 2013 from <http://www.ameu.co.za>.
- Mvondo, J. M. (2010). Impact of access to free basic electricity on households poverty in Buffalo city municipality in the Eastern Cape. A Masters Dissertation Submitted to the Department of Development Studies, University of Fort Hare.
- Niez, A. (2010). Comparative study on Rural Electrification Policies in Energizing Economics.Keys to successful policies.International Energy Agency. Accessed on 2nd May, 2013 from <http://www.lea.org>.
- Pigou, A.C. (1932). *The Economics of welfare*. London: Macmillan & Co
- Shafritz, et al. (2007). *Public administration* (5th edition). New York: Pearson Educational Inc.
- Tinto, E. M & Banda, k. G. (2005).The Integrated National Electrification Programme and Political Democracy. In journal of Energy in Southern Africa. Vol 16, No 4 Accessed on 10th December, 2012 from <http://www.eri.uct.za>.
- Van Horen, C & Simmonds, G. (1998). Energy efficiency and social equity in South Africa: seeking convergence. Energy policy, vol 26 No 11 pp. 893-903. Accessed on 5th October, 2012 from <http://o-www.sciencedirect.com.wam.seals.ac.za>.
- Wentzel, M. 2005. Achieving universal access to electricity in South Africa energize. <http://www.eepublishers.co.za>. Accessed on 5th May 2013.
- Republic of South Africa (1998). *The White Paper on Energy Policy*. Accessed on 20th September, 2012 from <http://info.gov.za>.
- Republic of South Africa (1994). *The White Paper on Reconstruction and Development*. Government Gazette. Accessed on 25th May, 2013 from <http://www.info.gov.za>.
- Republic of South Africa (2003). *Electricity Basic Services Support Tariff*. Department of Minerals and Energy. Accessed on 25th June, 2012. <http://www.kzncogta.gov.za>.
- Republic of South Africa (2008). *Electricity Pricing Policy*. Department of Minerals and Energy. Accessed on 15th March, 2013 from <http://www.eskom.co.za>.
- Republic of South Africa. 2006. *Electricity Regulation Act 4*. Department of Minerals and Energy. Accessed on 15th March, 2013 from <http://www.nersa.org.za>.