LET NUCLEAR ENERGY BOIL THE KETTLE OF INDIGENT PEOPLE

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ABSTRACT

In this article, the planning of electricity supply infrastructure is problematised from the ubuntu point of view. Among other things, I examine the impact of nuclear energy on planning electricity supply infrastructure in order to meet the administrative obligation to facilitate universal access to affordable, reliable and clean, modern electricity to the populace. In addition, flowing from the synergies between the hypothesis of cheap and clean electricity from nuclear capacity and collective benefits from available resources while protecting the environment, this article explores the right to access to electricity, and the role of the Department of Energy in providing electricity to the populace by planning electricity supply infrastructure that is in harmony with communities and environments, guided by the values of ubuntu.

Key words: nuclear energy; socio-economic rights; ubuntu; indigent; electricity supply infrastructure; clean electricity



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INTRODUCTION

Electricity is a basic service which is integral to the progressive realisation of socioeconomic rights and the well-being of individuals and communities. The United Nations General Assembly passed the International Year of Sustainable Energy for All resolution, in which the international community expressed its concern that

'that over three billion people in developing countries rely on traditional biomass for cooking and heating, that one and a half billion people are without electricity and that, even when energy services are available, millions of poor people are unable to pay for them'.²

The South African people are no exception and have suffered gross discrimination relating to electricity supply that was planned to serve 'a modern industrial urban society to meet the needs of the industrial sector', including 'mining, chemical and agricultural industries', and the needs of 'a privileged white minority'.

The Reconstruction and Development Programme (RDP) (1994) identified energy as a basic need which was not available to the indigent. According to the RDP 'only 36% of South African households have access to electricity, leaving some three million households', 19 000 schools and around 4 000 clinics unelectrified.⁶ Nevertheless, constitutional normative rules governing basic services contemplate

¹ United Nations General Assembly. 2013. 65th Session 65/151 Resolution 16 February 2011. International Year of Sustainable Energy for All. http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/65/151 (accessed 12 March 2013).

² Resolution 65/151.

³ Section 3.3.1 of the White Paper on the Energy Policy of the Republic of South Africa (December 1998) by the then Department of Minerals and Energy. Hereinafter referred to as the 1998 White Paper on Energy Policy

⁴ See Daniel Malzbender. 2005. Domestic electricity provision in the democratic South Africa. AWIRU/CiPS, University of Pretoria, Paper produced for the Nordic Africa Institute (September)
2.

Section 3.3.1 of the 1998 White Paper on Energy Policy. Further, in *City Council of Pretoria v Walker* it was remarked that 'Atteridgeville and Mamelodi are no different from other poverty-stricken black townships in South Africa; there are glaring disparities between the two townships on the one hand, and old Pretoria on the other ...' – (CCT8/97) [1998] ZACC 1; 1998 (2) SA 363; 1998 (3) BCLR 257 (17 February 1998) para 9. 'The present case concerns two areas which were black and one that was white. The former were poorly developed in terms of infrastructure for municipal services; they had no meters to record consumption of electricity and water.' – (CCT8/97) [1998] ZACC 1; 1998 (2) SA 363; 1998 (3) BCLR 257 (17 February 1998) para 4.

Paragraph 2(7)(1) of the Reconstruction and Development Programme (RDP). http://www.nelsonmandela.org/omalley/index.php/site/q/03lv02039/04lv02103/05lv02120/06lv02126.htm (accessed 12 February 2013).

egalitarian,⁷ reconciliatory,⁸ transformative⁹ and reconstructive objectives¹⁰ which reflect the rights of people to realise better standards of living.

After 1994, the democratic government introduced many energy and electrification policies, including the Integrated National Electrification Programme, ¹¹ Free Basic Electricity ¹² and Free Basic Alternative Energy. ¹³ These policies were intended to deal with the inequalities and backlogs in access to energy of the majority of the population, and to promote economic development and elevate the quality of life of citizens through energy provision.

The enjoyment of the right to access to electricity as a communal right has developed alongside the development of modern society in which electricity has become integral to the well-being, humanity and dignity of human beings. It is clear that access to electricity is a socio-economic need but not a socio-economic right, as is the right to water. The Constitutional Court has found alternative legal avenues through the Housing Act¹⁴ and the Public Administration Justice Act (PAJA)¹⁵ through which to assert the obligation on local governments to provide electricity. The Constitutional Court has also interpreted the termination of electricity supply as contradictory to the evolution of this administrative relationship which has manifested in service delivery principles that link to the *Batho Pele* ('People First') principle, an ingrained basis of ubuntu.

The right to access to electricity can also be approached according to international human rights instruments which require the Constitutional Court to examine the constitutional values of the right and to elevate access to electricity to constitutional status. This requires the administration to take reasonable steps and introduce legislative measures within the available resources to maximise realisation of the

Woolman and Fleisch consider that 'the state floats radically egalitarian policy balloons ...' – see Stu Woolman & Brahm Fleisch. 2009. *The constitution in the classroom: Law and education in South Africa, 1994–2008.* Pretoria University Law Press, 214.

⁸ Joan Church, Christian Schulze & Hennie Strydom. 2007. *Human rights from a comparative and international law perspective*. University of South Africa, 202.

The theoretical approaches to socio-economic rights regard poverty and socio-economic marginalisation in the context of a constitutional obligation to transform. See Hanri Mostert. 2003. Liberty, social responsibility and fairness in the constitutional property protection and regulation. In Henk Botha, Andries Johannes van der Walt & JC van der Walt (eds). 2003. *Rights and democracy in a transformative constitution*. Sun Press, 118. See also Dennis Davis. 2008. Jurisprudence. In Denis Victor Cowen (ed) *Cowen on law: Selected essays*. Juta, 123.

¹⁰ Paragraph 2.6.4 of the White Paper on Reconstruction and Development requires provincial governments to 'carry out RDP activities in accordance with their current responsibilities under the Constitution'. White Paper on RDP published in *Government Gazette* on 23 November 1994.

¹¹ Department of Energy. Suite of Supply Policy Guidelines for the Integrated National Electrification Programme in 2012/13. Date: 2012/13.

¹² Free Basic Electricity. Notice 1693 of 2003. Government Gazette 25088 of 4 July 2003.

¹³ Free Basic Alternative Energy. Notice 391 of 2007. Government Gazette 29760 of 2 April 2007.

^{14 107} of 1997.

^{15 3} of 2000.

right to access to electricity. ¹⁶ That is to say, that the administration is responsible for bringing about universal access to affordable, reliable and clean, modern energy, which is dependent on the nature of the electricity supply infrastructure, including fossil fuels, fissile fuel and renewables.

The 1998 White Paper on Energy Policy required the state to balance nuclear energy against various alternative energy sources, taking into account various environmental and economic factors. The 2011 Integrated Resource Plan (IRP)¹⁷ altered the electricity supply infrastructure by introducing a nuclear fleet producing 9.6 GW of energy. This was justified in the Nuclear Energy Policy for the Republic of South Africa, which aims at the 'promotion of nuclear energy as an important electricity supply option', which mitigates the environmental impact while at the same time making a contribution to the country's national programme of social and 'economic transformation, growth and development'.¹⁸

This article examines the impact of nuclear energy on planning electricity supply infrastructure in order to meet the administrative obligation to facilitate universal access to affordable, reliable and clean, modern electricity on the part of the populace. By considering the synergies between the provision of cheap and clean electricity from nuclear capacity and the collective benefits from available resources while protecting the environment, this article explores the right to access to electricity set against the role of the Department of Energy in providing electricity to the people by planning electricity supply infrastructure that is in harmony with communities and the environment while guided by the values of ubuntu.

RIGHT TO ACCESS TO ELECTRICITY

Access to electricity has been argued before the Constitutional Court on several occasions. ¹⁹ In *Joseph & others v City of Johannesburg & others*, ²⁰ the applicants

Article 14(h) of the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) prescribes that women should 'enjoy adequate living conditions, particularly in relation to housing, sanitation, electricity and water supply, transport and communications'. The CEDAW was adopted in 1979 by the United Nations General Assembly; South Africa signed on 29 January 1993 and ratified it on 15 December 1995. http://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-8&chapter=4&lang=en (accessed 13 March 2013).

Department of Energy Electricity Regulations on the Integrated Resource Plan 2010–2030 (hereinafter referred to as the IRP). The IRP was promulgated under the Electricity Regulation Act 4 of 2006. Government Notice No 34263 of 6 May 2011.

¹⁸ Paragraph 4 of Nuclear Energy Policy for the Republic of South Africa (Department of Minerals and Energy, June). http://www.energy.gov.za/files/policies/policy_nuclear_energy_2008.pdf (accessed 10 March 2013).

¹⁹ Nokotyana & others v Ekurhuleni Metropolitan Municipality & others (CCT 31/09) [2009] ZACC 33; 2010 (4) BCLR 312 (CC) (19 November 2009) para 1.

^{20 (}CCT 43/09) [2009] ZACC 30; 2010 (3) BCLR 212 (CC); 2010 (4) SA 55 (CC) (9 October 2009) para 32.

sought the 'reconnection of the electricity supply to Ennerdale Mansions', where they lived.²¹ They argued that their rights, including the 'right of access to adequate housing under section 26 of the Constitution' and the 'right to human dignity under section 10 of the Constitution ... were materially and adversely affected by the termination of electricity supply'.²²

The court measured the access to electricity against the right to access to potable water. Skweyiya J found that 'in contrast to water, there is no specific provision in respect of electricity in the Constitution'. However, he remarked that electricity remains 'an important basic municipal service which local government is ordinarily obliged to provide'. However, he remarked that electricity remains 'an important basic municipal service which local government is ordinarily obliged to provide'.

The findings of the *Joseph* case avoided the implication that the constitutional right to housing and amenities such as water, healthcare and clean air may extend to the provision of electricity. Nevertheless, in *Lindiwe Mazibuko & others v City of Johannesburg*, the Constitutional Court required the City of Johannesburg to be continually reconsidering its policy and investigating ways to ensure that the poorest inhabitants of the City gained access not only to water, but also to other services, such as electricity, sanitation and refuse removal 26 Yacoob J used the findings of *Mkontwana v Nelson Mandela Metropolitan Municipality & another, Bissett and others v Buffalo City Municipality & others, Transfer Rights Action Campaign & others v MEC, Local Government and Housing, Gauteng, & others (KwaZulu-Natal Law Society and Msunduzi Municipality and Amici Curiae)* to arrive to the conclusion that supplying electricity to their residents is part of the municipalities' public duty, because electricity, in the wording of Skweyiya J, 'is one of the most common and important basic municipal services and has become virtually indispensable ...'. 28

The right to access to affordable, reliable, clean and modern electricity can be argued for on the basis of provisions of international human rights instruments, which, it can be argued, merit constitutional protection. To this can be added the

^{21 (}CCT 43/09) [2009] ZACC 30; 2010 (3) BCLR 212 (CC); 2010 (4) SA 55 (CC) (9 October 2009) para 32.

^{22 (}CCT 43/09) [2009] ZACC 30; 2010 (3) BCLR 212 (CC); 2010 (4) SA 55 (CC) (9 October 2009) para 32.

^{23 (}CCT 43/09) [2009] ZACC 30; 2010 (3) BCLR 212 (CC); 2010 (4) SA 55 (CC) (9 October 2009) para 32.

^{24 (}CCT 43/09) [2009] ZACC 30; 2010 (3) BCLR 212 (CC); 2010 (4) SA 55 (CC) (9 October 2009) para 32.

^{25 (}CCT 39/09) [2009] ZACC 28; 2010 (3) BCLR 239 (CC); 2010 (4) SA 1 (CC) (8 October 2009).

²⁶ Lindiwe Mazibuko & others v City of Johannesburg (CCT 39/09) [2009] ZACC 28; 2010 (3) BCLR 239 (CC); 2010 (4) SA 1 (CC) (8 October 2009) para 94.

²⁷ CCT 57/03 [2004] ZACC 9; 2005 (1) SA 530 (CC); 2005 (2) BLLR 150 (CC) (6 October 2004); CCT 01/04, [2004] ZACC 16 (16 October 2004); CCT 01/04, CCT 61/03, CCT 57/03, [2004] ZACC 23 (6 October 2004).

²⁸ Joseph & others v City of Johannesburg & others (CCT 43/09) [2009] ZACC 30; 2010 (3) BCLR 212 (CC); 2010 (4) SA 55 (CC) (9 October 2009) para 34.

administrative obligations of local governments to provide basic services. However, since the Department of Energy is ultimately responsible for providing electricity and planning the national electricity supply infrastructure, this is still a viable avenue worth exploring for the purposes of this article.

ROLE OF THE DEPARTMENT OF ENERGY IN PROVIDING FLECTRICITY

The Constitutional Court remedied the legal questions relating to access to electricity by referring to local governments' responsibility to provide basic municipal services as imposed by the Constitution,²⁹ the Local Government: Municipal Systems Act³⁰ and the Housing Act.

Section 9(1)(a)(iii) of the Constitution provides as follows:

'(1) Every municipality must, as part of the municipality's process of integrated development planning, take all reasonable and necessary steps within the framework of national and provincial housing legislation and policy to –ensure that –...(iii) services in respect of water, sanitation, electricity, roads, storm-water drainage and transport are provided in a manner which is economically efficient.' Despite this provision, the litigation relating to the assertion of the right to electricity supply seems to be in its infancy. It is submitted that in this regard, the responsibility of the Department of Energy should be invoked because addressing the right to access to affordable electricity is presumably the mandate of the national government. The Department of Energy is mandated to deal with electricity supply infrastructure and distribution through five pieces of legislation: the National Energy Regulator Act,³¹ the Electricity Regulation Act,³² the National Energy Act,³³ the National Nuclear Energy Act,³⁴ and the Nuclear Energy Act.³⁵

The Minister of Energy has wide-ranging powers and comprehensive duties which include being required to develop energy planning, institutions and human resources involving in energy governance that is adequate to meeting the country's needs. Section (5)(1) of the National Energy Act requires the Minister to 'adopt measures that provide for the universal access to appropriate forms of energy or energy services for all the people of the Republic at affordable prices'. Although the Minister of Energy was not a respondent in the *Joseph* case, he or she remains responsible for the national energy policy that provides for facilitating universal access³⁶ to

²⁹ Section 152 of the Constitution of the Republic of South Africa 108 of 1996.

³⁰ Section 73 of the Municipal Systems Act 32 of 2000.

^{31 40} of 2004.

^{32 4} of 2006.

^{33 34} of 2008.

^{34 46} of 1999.

^{35 47} of 1999.

³⁶ Section 2(d) of the Electricity Regulation Act. 4 of 2006.

affordable,³⁷ reliable,³⁸ environmentally sustained,³⁹ and diversified electricity.⁴⁰ In simple words, in planning the electricity supply infrastructure, the minister is guided by legal frameworks intended to promote the socio-economic rights and to 'achieve the efficient, effective, sustainable and orderly development and operation of electricity supply infrastructure in South Africa'.⁴¹

PLANNING FLECTRICITY SUPPLY INFRASTRUCTURE

Planning the electricity supply infrastructure requires the inclusion of three types of power plant, namely base-load power plants, mid-merit power stations and peakload power plants:

- Base-load power plants are intended to meet the continuous and predictable demand throughout the year. Plants should be 'robust, durable, efficient, fairly cheap' and 'capable of operating for a very large fraction of the year for three or four decades'.⁴² Practice has shown that such a load can be met only by 'modern nuclear or fossil fuelled stations'. Besides the two reactors at Koeberg and another oil-fired power plant converted to a gas-fired power plant, in South Africa, base-load power plants are mainly coal-fired.
- Mid-merit power stations are required to meet predictable variations in the demand 'during the day or the week, between night and day, and between weekends and each day'.⁴³ The old base-load power plants can be deployed to meet such demand.
- Peak-load power plants are intended to meet any surge in demand which may occur, for example 'when, in millions of households, electric kettle is switched on at the end of popular television programme'.⁴⁴ Such demand requires power plants that are able to produce full power promptly. These power plants can be gas-turbine generators or hydro-electric power plants, including pump storage.

The base-load power plants are the armature of the economy of South Africa, which is energy driven and characterised as a 'high energy intensity economy' because it

³⁷ Section 5(1) of the National Energy Act.

³⁸ Section 2(a) of the Electricity Regulation Act.

³⁹ Section 2(*h*) of the National Energy Act.

⁴⁰ Section 2(d) of the Electricity Regulation Act. See also section 2(i) of the National Energy Act.

⁴¹ Section 2(a) of the Electricity Regulation Act.

⁴² Leonard G Brookes & Homa Motamen (eds). 1984. *The economics of nuclear energy* (London: Chapman & Hall), 3.

⁴³ Leonard G Brookes & Homa Motamen (eds). 1984. *The economics of nuclear energy* (London: Chapman & Hall), 3.

⁴⁴ Leonard G Brookes & Homa Motamen (eds). 1984. *The economics of nuclear energy* (London: Chapman & Hall), 2.

basically relies on coal for the production of both electricity and liquid fuels. ⁴⁵ Nevertheless, the three components of electricity infrastructure – fossil fuels, nuclear energy and renewables – have to be balanced when seeking sustainable development. The problem, however, lies in the fact that the energy supply infrastructure cannot be adequately structured without base-load power stations which can only be fossil-fired or nuclear.

South Africa has 24 coal-fired power plants, including Kusile in Mpumalanga and Medupi in Limpopo, which are currently under construction.⁴⁶ Moreover, five coal-fired power stations are currently decommissioned,⁴⁷ though one of them was converted into a gas-power station and recommissioned in 2007.⁴⁸ Add to this tally one nuclear power plant in the Western Cape.

South Africa has abundant coal reserves. To a certain extent, the South African energy model is based on indigenous resources and sources 85 per cent of its energy from coal-fired power capacity, which seems to be a viable scenario. However, the exhaustible nature⁴⁹ of coal, its ever-increasing price and its contribution to greenhouse gases (GHGs)⁵⁰ have introduced economies that are 'substantially decarbonised', ⁵¹ that is, intended to manage the variables of a carbon-constrained world.

Figure 1 illustrates the components of electricity supply infrastructure that produce 41 GW and are planned to increase to 81 GW in 2030. It further shows that coal-fired power plants are fundamental electricity suppliers that contributed 79% of the total electricity supply in 2004 and 85% in 2011, and which are projected to contribute 65% by 2030. The policy-adjusted IRP introduces 9.6 GW of nuclear fleet

⁴⁵ The 1998 White Paper on the Energy Policy, 14.

⁴⁶ The two power stations will generate 9 600 MW. See Eskom Kusile Power Station http://www.eskom.co.za/c/article/58/kusile-power-station/ (accessed 28 March 2012); Eskom Medupi Power Station http://www.eskom.co.za/c/article/57/medupi-power-station/ (accessed 28 March 2012).

⁴⁷ Ingagane Power Station in KwaZulu-Natal, which had been in operation since 1963 generating 500 MW and was decommissioned in 1990.

⁴⁸ Athlone Power Station in Western Cape, which had been in operation since 1961 generating 180 MW and was decommissioned in 2003; Colenso Power Station KwaZulu-Natal, which had been in operation since 1926 generating 160 MW and was decommissioned in 1984; Driehoek Power Station, Gauteng, was in operation between 1898 and 1911, and Orlando Power Station Gauteng, which had been in operation since 1942 generating 300 MW and was decommissioned in 1998.

^{49 &#}x27;South Africa's coal reserves are estimated at 53 billion tonnes, and with our present production rate there should be almost 200 years of coal supply left.' See Eskom Fact sheet: Coal in South Africa http://recruitment.eskom.co.za/content/CO_0007CoalSARev9.pdf (accessed 20 March 2011).

⁵⁰ The White Paper on Renewable Energy (November 2003) defines GHGs as follows: 'Gases primarily carbon dioxide, methane, and nitrous oxide in the earth's lower atmosphere that trap heat, thus causing an increase in the earth's temperature and leading towards the phenomenon of global warming.' See Department of Minerals and Energy, Republic of South Africa White Paper on Renewable Energy (November 2003).

⁵¹ Zillman Donald N *et al* (eds). 2008. *Beyond the carbon economy: Energy law in transition*. Oxford: Oxford University Press, 516.

in order to ensure 'security of supply', promote 'building local industry clusters' and assist 'in fulfilling South Africa's commitments to mitigating climate change as expressed at the Copenhagen climate-change summit'.⁵²

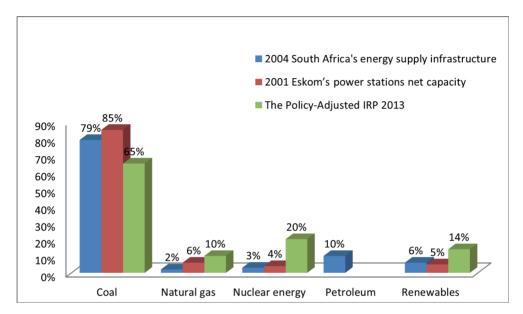


Figure 1: South Africa's energy supply infrastructure, 2004–2030, from 41 GW to 81 GW

Section 1(xvi) of the Nuclear Energy Act defines nuclear energy as to include 'all the energy released by a nuclear fission or nuclear fusion process'.

The process of generating electricity from nuclear capacity is similar to that of thermal power plants, for example coal-fired power plants.⁵³ The large amount of heat released from burning uranium is transferred to the water which is pressurised through the steam generator (see Figure 2). As a result, the water in the steam generator is converted to steam and pressurised through a steam turbine which converts the heat contained in steam into mechanical energy. The turbine shaft is joined to an electric generator which converts the turbine mechanical energy to electricity.

Department of Energy. Integrated Resource Plan 2010–2030. The IRP has been promulgated under the Electricity Regulation Act 4 of 2006. Government Notice No 34263 (6 May 2011). Hereinafter referred to as the IRP.

⁵³ Cole R MacClure, Jr & Allen W Hatheway. 1979. An overview of nuclear plant siting and licensing. In Allen W Hatheway & Cole R MacClure *Geology in the siting of nuclear power plants, Vol 4* Geological Society of America, 3–12.

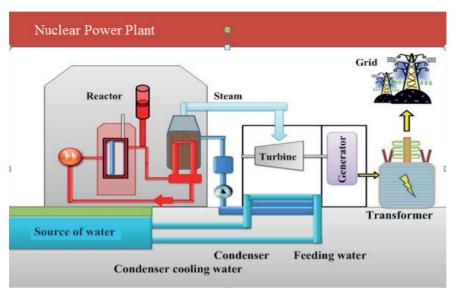


Figure 2: The components of a nuclear power plant

Figure 2 illustrates the components of a nuclear power plant, which here do not include a chimney. Consequently, any adverse effects on the environment such as GHG and global warming are minimal.⁵⁴ Add to this the presence of sizeable available uranium resources and this makes nuclear energy attractive for South Africa.⁵⁵

In terms of s 6(1) of the National Energy Act, the Minister of Energy has to develop and, 'on an annual basis, review and publish the Integrated Energy Plan in the *Gazette*'.⁵⁶ The IEP deals with various issues relating to energy, providing for facilitation of universal access to affordable, reliable, environmentally sustainable and diversified electricity. Simply stated, the minister is required to establish a policy which balances the facilitation of universal access to electricity in order to electrify the end-users in the country against protection of the environment while utilising the available resources. This is in line with the King Committee on Corporate Govern-

Mounfield stated that 'conventional power stations burning coal and oil are sources of such gases contributing worldwide 12 per cent of the total. For each kilowatt-hour of electricity produced, nuclear power plants contribute less than 4 per cent of carbon dioxide levels emitted by coal-fired power stations'. Peter R Mounfield. 1991. *World nuclear power: A geographical appraisal*. London & New York: Routledge, 61.

⁵⁵ The 2008 Nuclear Energy Policy for the Republic of South Africa, 7.

Section 6(1) of the National Energy Act. The Integrated Resource Plan 2010–2030 was promulgated under the Electricity Regulation Act. It is stated at the top of the document that: 'I, Dipuo Peters, Minister of Energy, hereby under the Electricity Regulation Act, 2006 (Act 4 of 2006), promulgate IRP 2010 in the Schedule'. However, the Minister of Energy ought to publish the IRP under s 6(1) of the National Energy Act.

ance Report of 1994, which does not allow enterprises to 'act independently from the societies and the environment in which they operate'. ⁵⁷ That is to say, the development of electricity supply infrastructure should take into consideration the maintenance of the harmonious relationships between industry, indigenous resources, environment, and communities and their basic needs, guided by the values of ubuntu.

UBUNTU

South Africa's new constitutional dispensation allows for the reception of ubuntu as a humanising factor into the country's legal system.⁵⁸ The precepts of ubuntu have underpinned a value system that 'regulates the exercise of rights by the emphasis it lays on sharing and co-responsibility and the mutual enjoyment of rights by all'.⁵⁹ The 1997 White Paper on Social Welfare states the following:

'The principle of caring for each other's well-being will be promoted, and a spirit of mutual support fostered. Each individual's humanity is ideally expressed through his or her relationship with others and theirs in turn through a recognition of the individual's humanity. Ubuntu means that people are people through other people. It also acknowledges both the rights and the responsibilities of every citizen in promoting individual and societal well-being.'60

In the *S v Makwanyane & another*, ⁶¹ Kentridge AJ found that the value of 'life and human dignity' in a community sense is 'an outstanding feature of ubuntu'. ⁶² 'The ideas of humaneness, social justice and fairness' ⁶³ became the primary components of the evolution of constitutional norms which represent ubuntu. ⁶⁴ The South African

⁵⁷ Contemplated by Judith King and Stephan Nixon. 2012. Ubuntu, Aids, and the King II Report: reflection on corporate social responsibility in South Africa. In Lisa Forman and Jillian Clare Kohler. Access to medicines as a human right: What are the implications for pharmaceutical industry responsibility? University of Toronto Press, 181–196 at 183.

⁵⁸ TW Bennett. 2011. Ubuntu: An African equity. *PER/PELJ* 14(4): 29–61 at 30 http://dx.doi. org/10.4314/pelj.v14i4.2 (accessed 13 April 2013).

⁵⁹ See Justice Langa in Sv Makwanyane & another (CCT3/94) [1995] ZACC 3; 1995 (6) BCLR 665; 1995 (3) SA 391; [1996] 2 CHRLD 164; 1995 (2) SACR 1 (6 June 1995) para 224. Hereinafter referred to as Makwanyane.

⁶⁰ Department of Welfare. 1997. White Paper on Social Welfare: Principles, guidelines, recommendations, proposed policies and programmes for developmental social welfare in South Africa (August). http://www.info.gov.za/view/DownloadFileAction?id=127937 (accessed 13 November 2012).

⁶¹ Makwanyane (CCT3/94) [1995] ZACC 3; 1995 (6) BCLR 665; 1995 (3) SA 391; [1996] 2 CHRLD 164; 1995 (2) SACR 1 (6 June 1995).

⁶² Makwanyane (CCT3/94) [1995] ZACC 3; 1995 (6) BCLR 665; 1995 (3) SA 391; [1996] 2 CHRLD 164; 1995 (2) SACR 1 (6 June 1995) para 225.

⁶³ Makwanyane (CCT3/94) [1995] ZACC 3; 1995 (6) BCLR 665; 1995 (3) SA 391; [1996] 2 CHRLD 164; 1995 (2) SACR 1 (6 June 1995) para 237.

Postamble to the 1993 Interim Constitution, Act 200 of 1993.

courts have found room for the exercise of ubuntu, ⁶⁵ which expresses itself in the words *umuntu ngumuntu ngabantu*, in the process developing 'key values of group solidarity, compassion, respect, human dignity, conformity to basic norms and collective unity, in its fundamental sense it denotes humanity and morality'. ⁶⁶ That is to say, the values relating to human dignity are interwoven with the society's endeavour to achieve all basic 'individual rights with a communitarian philosophy'. ⁶⁷

The enjoyment of the right to access to electricity as a communal right has developed alongside the development of modern society⁶⁸ in which electricity has become integral to the well-being, humanity and dignity of human beings. In other words, access to electricity is inseparable from the wholeness of ubuntu, which encompasses the whole cluster of political, civil, socio-economic, and collective rights constituting the totality and indivisibility of human dignity.⁶⁹ The synthesis of ubuntu and constitutional norms reveals structural relationships between the public administration and the maintenance of socio-economic rights through service delivery.⁷⁰ The evolution of this administrative relationship has manifested itself in service-delivery principles that link *Batho Pele* ('People First') to ubuntu.

In the *Joseph* case, the applicants argued that the termination of the electricity supply materially and adversely affected 'their right to human dignity under section 10 of the Constitution'.⁷¹ Instead, Skweyiya J moved to investigate the constitutional obligations of a public service provider to maintain service delivery, including electricity. In order to explain the meaning of rights in the context of public service deliv-

⁶⁵ Makwanyane (CCT3/94) [1995] ZACC 3; 1995 (6) BCLR 665; 1995 (3) SA 391; [1996] 2 CHRLD 164; 1995 (2) SACR 1 (6 June 1995) para 243.

⁶⁶ Makwanyane (CCT3/94) [1995] ZACC 3; 1995 (6) BCLR 665; 1995 (3) SA 391; [1996] 2 CHRLD 164; 1995 (2) SACR 1 (6 June 1995) para 308.

⁶⁷ Port Elizabeth Municipality v Various Occupiers (CCT 53/03) [2004] ZACC 7; 2005 (1) SA 217 (CC); 2004 (12) BCLR 1268 (CC) (1 October 2004) para 37. http://www.saflii.org.za/za/cases/ZACC/2004/7.html (accessed 13 November 2012). Hereinafter after referred to as Port Elizabeth Municipality.

⁶⁸ It would be absurd to require Moshoeshoe to lay down a set of rules concerned with universal access to electricity. But it is a valid exercise to force 'all spheres of government and all organs of the state' which has the power, mandate and bound by ubuntu fundamentals to realise Thandeka's dream including the nuclear energy dream. See Mahao Nqosa. 2010. O se re ho morwa 'morwa towe'! African jurisprudence exhumed XLIII CILSA 317–336 at 326.

⁶⁹ Mahao Nqosa. 2010. O se re ho morwa 'morwa towe'! African jurisprudence exhumed XLIII *CILSA* 317–336 at 334.

⁷⁰ The fusion of ubuntu in the constitutional norms influences the performance of public administration, including 'administration in every sphere of government' ('section 195(2)(a) of the Constitution) organs of state ('section 195(2)(b) of the Constitution'), and public enterprises ('section 195(2)(c) of the Constitution') which are bound by 'basic values and principles governing public administration' ('section 44(d) of the Constitution') and required to maintain or meet established 'minimum standards required for the rendering of services' ('section 195 of the Constitution').

⁷¹ *Joseph & others v City of Johannesburg & others* (CCT 43/09) [2009] ZACC 30; 2010 (3) BCLR 212 (CC); 2010 (4) SA 55 (CC) (9 October 2009) para 12.

ery Skweyiya J articulated in a footnote 'the national policy of Batho Pele ("People First"), described in the White Paper on Transforming Public Service Delivery ... Batho Pele expresses a commitment to deliver public services to all citizens.' Further, he considered Batho Pele as a mechanism which 'gives practical expression to the constitutional value of ubuntu which embraces the relational nature of rights'. The integration of the precepts of ubuntu in the institution of access to electricity is clear from the guidelines regulating the performance and ethics of the administration. For example, the Strategic Plan 2011/12–2015/16 begins by displaying its values, including *Batho Pele*,⁷² ethics, honesty, integrity, accountability, professionalism and ubuntu.⁷³ The assertion of transformative regulatory frameworks is that they are intended to accommodate the basics of ubuntu which require homocentric service delivery that takes into account the equality and inclusivity of all human beings in a sustainable and resilient social and ecological equilibrium.⁷⁴

The conceptualisation of access to electricity fundamentals within ubuntu parallels similar outcomes which require the administration to deploy energy resources in a harmonised equilibrium. That is to say, the administrative role in electricity planning should be to uphold all those balancing factors that serve all human beings. This it should do in order to protect their dignity by raising standards of living, based on universal norms that pertain to socio-economic rights and sustainable development. Consequently, ubuntu fundamentals require all spheres of government and all organs of the state and public enterprises to co-operate in order to secure the well-being of the people of the state. Of course the national government may intervene in the administration of provinces and the latter may intervene in local government by taking appropriate steps to maintain essential national standards or meet established minimum standards necessary for rendering a service. Indeed, all spheres of government, all the organs of state and all public enterprises are required to adhere to the basic values and principles governing public administration.

^{72 &#}x27;Batho Pele' is a Sotho expression that means 'people first' and requires the implementation of eight service-delivery principles, including 'regularly consult with customers, set service standards, increase access to services, ensure higher levels of courtesy, provide more and better information about services, increase openness and transparency about services, remedy failures and mistakes, and give the best possible value for money'.

⁷³ Department of energy. Strategic Plan 2011/12–2015/16.

⁷⁴ Mahao Nqosa. 2010. O se re ho morwa 'morwa towe'! African jurisprudence exhumed. XLIII CILSA 317–336 at 326, 334.

⁷⁵ The Constitutional Court has made it clear that any claim based on socio-economic rights must necessarily engage the right to dignity. See *Jaftha v Schoeman & others, Van Rooyen v Stoltz & others* 2005 (1) BCLR 78 (CC) para 21.

⁷⁶ Section 41(1) of the Constitution.

⁷⁷ Section 195(c) of the Constitution.

⁷⁸ Section 41(1)(b) of the Constitution.

⁷⁹ Section 100(b)(i) of the Constitution.

⁸⁰ Section 195 of the Constitution.

The 'Constitution retains ... vigorous identification of and commitment to a democratic, universalistic, caring and aspirationally egalitarian ethos'.⁸¹ This ethos functions as an 'operational declaration'.⁸² in an 'evolving new society',⁸³ bearing in mind the 'changing socio-economic context and the impacts of economic globalisation'.⁸⁴ In this regard, it should be feasible for state planning to achieve, progressively, the full realisation of socio-economic rights, equality and human dignity by maximising its available resources.⁸⁵

Although the application of ubuntu to statutory interpretation is novel, ⁸⁶ the role that electricity plays in achieving socio-economic rights is significant. Consequently, the novelty of right to access to electricity has to be reconfigured in the context of the social balancing indicators relating 'to access to adequate housing, development, advancing standards of living, equality, and human dignity in ecologically sustainable development and use of natural resources while promoting justifiable economic and social development'. ⁸⁷

In the light of the above, developing nuclear power could be justified as being in alignment with social needs, available resources and the environment. In other words, the quantitative and qualitative criteria supporting access to electricity would include the right to dignity, housing, equality, socio-economic rights and the right to a clean and safe environment. These variables are galvanised by ubuntu precepts as

⁸¹ City of Johannesburg v Rand Properties (Pty) Limited & others (10330/04, 10331/04, 10332/04, 10333/04, 24101/03, 13835/04) [2006] ZAGPHC 21 (3 March 2006) para 62. http://www.saflii.org.za/za/cases/ZAGPHC/2006/21.html (accessed 13 November 2012).

⁸² Port Elizabeth Municipality v Various Occupiers (CCT 53/03) [2004] ZACC 7; 2005 (1) SA 217 (CC); 2004 (12) BCLR 1268 (CC) (1 October 2004) para 37. http://www.saflii.org.za/za/cases/ZACC/2004/7.html (accessed 13 November 2012) para 37.

⁸³ Port Elizabeth Municipality v Various Occupiers (CCT 53/03) [2004] ZACC 7; 2005 (1) SA 217 (CC); 2004 (12) BCLR 1268 (CC) (1 October 2004) para 37. http://www.saflii.org.za/za/cases/ZACC/2004/7.html (accessed 13 November 2012) para 37.

⁸⁴ Committee reports of the Taylor Committee into a social security system for South Africa. Committee Report No 3: Constitutional Framework of Social Security in South Africa: regulation, protection, enforcement and adjudication. http://www.sarpn.org/CountryPovertyPapers/SouthAfrica/taylor/report3.pdf (accessed 13 November 2012).

Article 2(1) of the International Covenant on Social and Cultural Rights. 'In this regard the critical role of the state in mobilising social resources towards overcoming poverty and extreme inequalities would be essential.' Committee reports of the Taylor Committee into a social security system for South Africa. Committee Report No 3: Constitutional Framework of Social Security in South Africa: regulation, protection, enforcement and adjudication. http://www.sarpn.org/CountryPovertyPapers/SouthAfrica/taylor/report3.pdf (accessed 13 November 2012).

⁸⁶ Pharmaceutical Society of South Africa & others v Minister of Health & another; New Clicks South Africa (Pty) Limited v Tshabalala-Msimang NO & another (542/2004, 543/2004) [2004] ZASCA 122 (20 December 2004) para 39. http://www.saflii.org.za/za/cases/ZASCA/2004/122. html (accessed 13 November 2012).

⁸⁷ Section 24(111) of the Constitution.

a constitutional value harmonising their universality and humanising their realisation 88

CONCLUSIONS

Although 'the people of South Africa are committed to the attainment of social justice and the improvement of the quality of life for everyone', 89 the conditions under which many South African people are still living are intolerable. 90 These conditions are the focus of the restorative legal values of the new dispensation which are intended to promote equality, human dignity and fundamental human rights and freedoms. 91 The role of access to electricity in restoring social justice and improving the quality of life of the people of South Africa is significant. Nevertheless, access to electricity has to be administratively managed in order to mitigate environmental concerns, maintain the affordability of electicity and ensure a reliable supply. These three factors contribute to achieving equality and might be the key determinant of the form that South Africa's electricity supply infrastructure takes. Put simply, the administration of the country is required to manage the electricity supply infrastructure dynamics and environmental issues that stem from the base-load, coal-fired power plants, the potential exhaustion of fossil-fuel resources, the price volatility of petrol and gas, and the limited reliability of renewable energy. An examination of these dynamics should bring the need for environmentally friendly, reliable and affordable nuclear capacity to the forefront of proposed solutions.

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Tshoose considers that 'the Constitutional Court has adopted the approach that the range of constitutional values contained in the Constitution does not constitute a *numerus clausus*, and that other values can also be elevated to this status'. See Clarence I Tshoose. 2009. The emerging role of the constitutional value of *ubuntu* for informal social security in South Africa. *African Journal of Legal Studies* 4: 11–19 at 16. http://www.academia.edu/613610/The_emerging_role_of_the_constitutional_value_of_Ubuntu_for_informal_social_security_in_South_Africa (accessed 17 January 2013). This is contrary to Daniel Malzbender 2005. Domestic electricity provision in the democratic South Africa. University of Pretoria, AWIRU/CiPS, 14–15.

⁸⁹ Government of the Republic of South Africa & others v Irene Grootboom & others CCT 11/00 (4 October 2000) para 1.

⁹⁰ Government of the Republic of South Africa & others v Irene Grootboom & others CCT 11/00 (4 October 2000) para 2.

⁹¹ Government of the Republic of South Africa & others v Irene Grootboom & others CCT 11/00 (4 October 2000) para 2.

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