ACCESS TO ENERGY SERVICES IN A HUMAN RIGHTS FRAMEWORK*

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1 INTRODUCTION

For many years the relevance of energy to resolving issues of environmental degradation and poverty appears not to have been recognised by the world community. Energy was seldom mentioned in scholarly works on national and international environmental law, and any reference to energy-related issues was usually peripheral. In world forums relating to sustainable development, energy lagged behind many other environmental issues. The past five years have seen a profound change. As a result of the deliberations at and leading up to the ninth session of the Commission on Sustainable Development and the World Summit on Sustainable Development, energy has reached centre stage.

While energy is a multi-faceted issue and needs a coordinated international response on many fronts, the issue that has attracted most attention recently has been the need to provide universal access to modern energy services. This is something that is taken for granted in developed countries, which perhaps explains the tardiness of the world community in coming to grips with the issue. Somewhat belatedly the link between poverty and the lack of access to modern energy services has been recognized, as without access to energy services people are destined to live in poverty. The provision of such services many decades ago was the major factor lifting the standard of development in developed countries and is a key ingredient to providing a sustainable way of living for all the world’s population.

The magnitude of the challenge is apparent from the fact that approximately two billion people, one-third of the world’s population, lack access to electricity supplies. Traditional energy sources include principally locally collected and unprocessed bio-fuels, such as animal dung, wood and crop residues. While between 1970 and 1990 rural electrification programs in some countries, particularly in China, connected 800 million people to the electricity grid and provided 500 million with better cooking facilities, the number without access to modern energy services remains at two billion as a result of increases in population. Consequently the majority of the population of developing countries does not have available to them electric lighting, clean cooking facilities, modern, efficient and non-polluting fuel supplies or adequate clean water and sanitation systems that those in the developed countries take for granted. The former must rely on traditional energy sources for their basic needs such as cooking.

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* This is a modified version of an article by Adrian J Bradbrook and Judith G Gardam, “Placing the Access to Energy Services Within a Human Rights Framework”, to be published by the Human Rights Quarterly in late 2005.
1 World Energy Assessment, at 3; World Energy Assessment 2004 Update, at 59-60.
2 Energy is required to lift clean sub-soil water.
The lack of access to modern energy services constrains the ability of the population of developing countries to benefit from opportunities for economic development and increased living standards. While there may be some scope to develop new and to extend existing electricity grid systems in developing countries, it is anticipated that in most cases access to electricity services would be provided by stand-alone systems based on renewable energy resources.

The conclusion that access to energy services is integral to overcoming poverty is nowadays widely accepted in the international community. However, to date this recognition has not assumed a legal dimension at the international level. It is timely to consider a well-developed legal regime that could be brought to bear on this problem, namely that of international human rights law. Since the adoption of the United Nations Charter in 1945, the protection and realisation of human rights has slowly and inexorably moved to the centre stage of the aspirations of the United Nations and the international community generally. Many disparate areas of human enterprise are now being seen as allied with the need to promote human rights and the interrelationship between sustainable development, the environment and human rights is already well established in the international arena. It is worth considering the potential of such a strategy as a way to circumvent existing obstacles to achieving more equitable access to energy services on a worldwide scale. By adopting a human rights approach, pressure could be brought to bear at the national and international level for recognition of access to energy services as integral to the realisation of the vast bulk of socio-economic rights. The aim of such a strategy is to achieve real progress in ensuring increased recognition that access to energy services is the way forward for overcoming endemic poverty in developing countries.

This paper first outlines the significance of access to energy services in the poverty debate. Secondly, we consider what strategies have so far been adopted by States to confront this issue and the difficulties that such initiatives have encountered. Against this background, the final section of the discussion makes the case for access to energy services as a human right and commences the task of providing a content for such a right.

2 THE SIGNIFICANCE OF ACCESS TO MODERN ENERGY SERVICES IN THE POVERTY DEBATE

It is not a particular source of energy or energy in itself that society requires, as energy has no intrinsic value, but rather the access to the products and lifestyle changes that the availability of adequate modern energy services provide (i.e. “services”). This is why the phrase “energy services” is deliberately chosen. Energy services result from the combined operation of primary energy, various energy-related technologies, labour, materials and infrastructure. Energy services include a variety

3 World Energy Assessment 2004 Update, Part III.
5 For example, the 2002 World Summit on Sustainable Development refers to the need to recognise the possible relationship between the environment and human rights, see WSSD para 152. See also, Philip Alston, “Revitalising United Nations Work on Human Rights and Development” (1991) 18 Melbourne University Law Review 216.
of facilities taken for granted in developed countries, such as lighting, heating, refrigeration, cooking and transport. As stated by the WEHAB Working Group:

Although energy itself is not a basic human need, it is critical for the fulfilment of all needs. Lack of access to diverse and affordable energy services means that the basic needs of many people are not being met.

The reasons why many developing countries lack access to modern energy services have never been clearly identified and discussed. However, the presumed reasons are the same ones that have traditionally thwarted or retarded technological advance, namely the lack of technological know-how, the lack of physical infrastructure, and the inability to finance new developments.

While the importance of the universal provision of energy services was first recognised as early as 1986 in the Report of the World Commission on Environment and Development (the Brundland report), the issue was brought to centre stage in 2000 in a lengthy report entitled World Energy Assessment: Energy and the Challenge of Sustainability, prepared jointly by the United Nations Development Program (UNDP), the United Nations Department of Economic and Social Affairs (UN-DESA) and the World Energy Council. This report highlighted the strong nexus between energy and poverty and called for world action to provide access to energy services for all. The Brundland report stated:

Energy services are a crucial input to the primary development challenge of providing adequate food, shelter, clothing, water, sanitation, medical care, schooling, and access to information. Thus energy is one dimension or determinant of poverty and development, but it is vital. Energy supports the provision of basic needs such as cooked food, a comfortable living temperature, lighting, the use of appliances, piped water or sewerage, essential health care (refrigerated vaccines, emergency and intensive care), education aids, communication and transport. Energy also fuels productive activities, including agriculture, commerce, manufacture, industry, and mining. Conversely, lack of access to energy contributes to poverty and deprivation and can contribute to economic decline.

The significance of the link between access to modern energy services and a wide range of social issues, as highlighted in the World Energy Assessment report, must be fully appreciated. Energy allows for the pumping of clean groundwater, and avoids the need to use and collect frequently contaminated surface water for drinking and household uses. In addition, energy can be used to boil, purify, disinfect and store water, and also for irrigation to increase the productivity of lands to increase the availability of food supplies and to provide increased employment. Energy is also integral to the delivery of health services, such as sterilization, lighting and water pumping for clinics, fans and other cooling devices, and the refrigeration of vaccines.

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6 WEHAB Working Group report at 7. The WEHAB Working Group report was formed as part of the preparations leading up to the World Summit on Sustainable Development 2002.
and drugs. There are further links between access to modern energy services and agriculture and biodiversity. Such services can revolutionize agriculture by improving the production and storage of crops, and providing more efficient and quicker transport to markets. Improvements in agriculture lead to increased productivity and a corresponding reduction in the pressure to increase the amount of cultivated land available and the consequent adverse impact on ecosystems and biodiversity.

The lack of access to modern energy services is particularly detrimental to women and children in developing countries. For example, traditionally women are responsible for food preparation and cooking. Consequently, without such services they are forced to spend a significant amount of time searching for firewood for cooking and other needs. A study commissioned by the United Nations Development Fund for Women (UNIFEM), relates how women in Sierra Leone spend days in the forest without tools, breaking firewood off with their bare hands and carrying it home on their backs. Some of those who were not successful in finding firewood were beaten by their husbands. The acquisition of fuel for cooking, moreover, prevents women from engaging in income-producing activities. The use of firewood for cooking also exacerbates the long-standing problem in many countries, particularly in Africa, of loss of habitat and desertification, and also leads to further health problems as women in developing countries have been found to suffer from severe respiratory problems as a result of using solid fuels for cooking indoors, such as dung and firewood. As many as two million people die prematurely each year from exposure to indoor air pollution caused by the use of solid fuels for cooking. Children’s educational needs also suffer as there is little time available for education if basic survival needs, such as fuel gathering, have to be attended to. Education is

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12 World Energy Assessment 2004 Update, at 36.
13 The link between desertification and energy is recognised in paragraph 39(d) of the WSSD Plan of Implementation. This requires States to “integrate measures to prevent and combat desertification as well as to mitigate the effect of drought through relevant policies and programmes, such as … energy…”.
further prejudiced by the fact that the lack of home electric lighting means that study is effectively impossible after nightfall.

There is also evidence that the provision of modern energy services could lower birth rates in developing countries. As stated by Johansson and Goldemberg:  

Although it is generally accepted that population growth tends to increase energy demand, it is less widely understood that the availability of adequate energy services can lower birth rates. Adequate energy services can shift the relative benefits and costs of fertility towards a lower number of desired births in a family. An acceleration of the demographic transition to low mortality and low fertility (as has occurred in industrialized countries) depends on crucial development tasks, including improving the local environment, educating women, and ameliorating the extreme poverty that may make child labour a necessity. All these tasks will require low-cost energy services.

The report of the ninth session of the Commission on Sustainable Development (CSD-9) noted that the incidence of lack of access to modern energy services is most acute in rural areas and recommended that particular attention should be given to these areas. The World Energy Assessment 2004 Update further noted that the growing incidence of access to modern energy services in urban areas is partly responsible for the increasing concentration of people in the large cities and the migration away from rural areas. Future emphasis on servicing rural areas with modern energy services could assist in minimizing this migration towards the cities and alleviate the social problems caused by slum dwellings commonly found in the city outskirts of developing countries. The authors of the 2004 Update also believe that there is a positive link between modern energy services and employment opportunities. They state:

Productive uses of energy provide employment opportunities and reduce the necessity to migrate to urban areas for employment. Productive uses allow income-generating opportunities that can help pay for the energy services, thus making them more affordable and sustainable.

The broad nexus between access to modern energy services and poverty is reinforced in the World Energy Assessment 2004 Update. The Update noted that access to energy services is not included in the Millennium Development Goals (MDGs). The MDGs are derived from the United Nations’ Millennium Declaration of 2000 and

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17 Report E/CN.17/2001/19. See www.un.org/esa/sustdev/csd/csd9_2001.htm (accessed 31 January 2005). The CSD is a functional Commission of the Economic and Social Council (ECOSOC), and it reports to that body. Pursuant to G.A. Resolution A/RES/47/191, the mandate of the CSD is to enhance international cooperation and rationalise the intergovernmental decision-making capacity for the integration of environment and development issues, and to examine the implementation of Agenda 21 at the international, regional and national levels.

18 World Energy Assessment 2004 Update, at 36.


are as follows: eradicating extreme poverty and hunger; achieving universal primary education; promoting gender equality and empowering women; reducing child mortality; improving maternal health; combatting HIV/AIDS, malaria and other diseases; ensuring environmental sustainability; and developing a global partnership for development. The disappointment was that access to energy services was not specifically mentioned anywhere in the MDGs. In reality, however, access to energy services is an essential prerequisite to the achievement of all of the stated goals. This point was emphasised in the World Energy Assessment 2004 Update. In Annex 1 to this document, the authors provide a matrix of energy and the MDGs, illustrating the role of energy services in achieving each of these aims. The Update concluded on this issue: “[n]one of the MDGs can be achieved without much greater access to improved quality and quantity of energy services”.

3 INTERNATIONAL ACTION TO ENSURE ACCESS TO ENERGY SERVICES

It is now widely recognised that energy related issues are at the heart of achieving sustainable development and overcoming poverty. However, international law appears to have been very slow in addressing this link between energy and sustainable development. While there have been multilateral and bilateral conventions in existence for many years governing matters concerned with the exploration for and production of conventional fossil fuels, environmental issues associated with energy development have only received belated attention. Early international law intervention in this area occurred only in an ad hoc fashion in response to recognised actual or potential environmental disasters. Significant environmental damage caused to sensitive coastal areas and marine life as a result of the sinking of large ocean-going tankers, such as the Amoco Cadiz, the Exxon Valdez and the Torrey Canyon, led to the adoption of the 1973 MARPOL Convention and the 1982 UN Convention on the Law of the Sea, which redefine the legal relationship between the coastal and port States, on the one hand, and the flag State, on the other hand. The effect of these Conventions is to increase significantly the obligations of flag States in relation to the protection of the seas.

The problem of acid rain, caused largely by sulphur emissions from coal-fired power stations, was addressed by the 1979 Convention on Long-Range Transboundary Air Pollution, together with later Protocols. The widespread international impact of

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21 See United Nations Environment Programme, Background Paper – Advancing the Millennium Development Goals Through the Rule of Law, DRAFT/BR/17.01.05.
27 (1979) 18 ILM 1442 (in force 1 June 1982).
atmospheric contamination of nuclear radiation, dramatically illustrated by the Chernobyl disaster of 1986, led to the Convention on Early Notification of a Nuclear Accident, the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, and the Convention on Nuclear Safety. Finally, the problem of the depletion of the atmospheric ozone layer, caused in part by the energy-related use of hydrofluorocarbons in refrigerators and air-conditioning units, both domestically and in motor vehicles, led to the 1985 United Nations Convention for the Protection of the Ozone Layer (Vienna) and the 1987 Protocol on Substances that Deplete the Ozone Layer (Montreal).

The first international recognition of energy as an important aspect of sustainable development occurred in the Brundland report in 1986. This report dedicated a separate chapter to Energy (chapter 7) and stated that energy should be at the cutting edge of national policies for sustainable development. The report went on to advocate the importance of developing renewable energy resources and improving energy efficiency and conservation in all sectors of the economy, but did not refer to the importance of providing energy services to the whole population of developing countries.

During the 1990s energy issues relating to sustainable development provoked strong and conflicting responses amongst various States and as a result it proved to be extremely difficult to advance the debate. At that stage a number of States, primarily oil-producing nations, felt that their economic interests would be threatened by the development of any new international law obligations requiring nations to give primacy to issues of sustainable development in this field. This issue arose most acutely in the debates leading up to the adoption of Agenda 21 as part of the UNCED Conference in Rio de Janeiro in 1992. Largely as a result of entrenched opposition by oil-producing nations, the proposed chapter on Energy had to be deleted from the final text. The final text of Agenda 21 largely ignores energy issues, which are limited to indirect references in the chapters on human settlement development (chapter 7), protection of the atmosphere (chapter 9), and promoting agriculture and rural development (chapter 14). In this respect, Agenda 21 can be seen as a step backwards from the Brundland Report.

The United Nations Framework Convention on Climate Change and the Kyoto Protocol to this Convention only contain non-binding references to the need to address issues relating to energy efficiency and renewable energy resources and do

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31 (1994) 33 ILM 1518.
34 Brundland Report, at 240.
not address the issue of the access to energy services for sustainable development. These very limited references to energy were agreed to despite the existence of uncontroversial scientific studies showing that over 50 per cent of global carbon dioxide atmospheric emissions are caused by energy exploration and production activities.\(^{37}\) Little progress was made in the discussions leading up to the Energy Charter Treaty\(^ {38}\) and its Protocol on Energy Efficiency and Related Matters.\(^ {39}\) These instruments contain more detailed provisions relating to energy efficiency and renewable energy resources,\(^ {40}\) but again in a soft law form and with no reference to the need to provide for access to energy services. A further disappointment from the perspective of energy for sustainable development was the Millennium Development Goals, which also ignored access to energy services.

As mentioned above, the catalyst for change was the *World Energy Assessment* report, produced in 2000. This document was prepared pursuant to the decision of the United Nations’ General Assembly in 1997 at its 19\(^{th}\) session that the ninth session of the Commission on Sustainable Development would focus on the sectoral themes of energy, the atmosphere and transport. This was the first major milestone in the effort of the United Nations to bring energy into the wider debate on sustainable development through the intergovernmental process.

In addition to the *World Energy Assessment* report, the CSD also took into account a report of its Ad Hoc Open-Ended Intergovernmental Group of Experts on Energy and Sustainable Development.\(^ {41}\) This group considered and make recommendations for change on a variety of matters relating to energy for sustainable development. In relation to the accessibility of energy, the report stated the following challenges and recommendations:

Access to energy is crucial to economic and social development and the eradication of poverty. Improving accessibility of energy implies finding ways and means by which energy services can be delivered reliably, affordably, in an economically viable, socially acceptable and environmentally sound manner.

Governments, taking into account their national circumstances, are encouraged to:

(a) Establish or strengthen national and regional arrangements for promoting energy accessibility within the country;

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(d) Develop locally available energy resources for greater energy diversification, where considered more environmentally sound, socially acceptable and cost-effective, with increasing use of renewable energy resources;

\(^{37}\) The exact figure may vary from country to country depending on its energy mix.

\(^{38}\) (1995) 34 ILM 360.

\(^{39}\) (1995) 34 ILM 446.

\(^{40}\) The relevant provisions are in Treaty, art 19; Protocol, arts 3, 5 and 8.

(e) Support electricity services based on grid extension and/or decentralized energy technologies, particularly in isolated areas, as appropriate;

(j) Enhance developing countries’ access to environmentally sound and economically viable technologies relating to energy for sustainable development;
(k) Support equal access for women to sustainable and affordable energy technologies through the needs assessments, energy planning and the policy formulation at the local and national levels. 42

The report emanating from CSD-9 recognised for the first time in an internationally agreed form that the current pattern of energy use was unsustainable on the grounds of environmental impact caused by patterns of energy use, the excessive divergence in energy consumption between countries and within each country, and the fact that two billion people worldwide do not have access to modern energy services. Universal access to such services was seen as an essential element in the processes involved in reducing poverty. The CSD agreed, inter alia, that: (1) the use of energy efficiency, renewable energy technologies and advanced energy technologies should be increased; (2) international and regional cooperation on energy for sustainable development should be intensified; (3) rural areas should be given priority; (4) the lending policies of development should take energy issues into account; and (5) the international dialogue on energy issues would continue under preparations for the World Summit on Sustainable Development, held in Johannesburg in September 2002.

Since the CSD-9 report, the issue of access to energy services has received increased attention. The eighteenth World Energy Congress, held in Buenos Aires in October 2001, reaffirmed the importance of universal access and agreed to include the issue in its 2002-2004 Work Program. As part of the preparations leading up to the World Summit on Sustainable Development, the United Nations Secretary General, Mr Kofi Annan, proposed to give emphasis at the conference to five key areas: water, energy, health, agriculture and biodiversity. This became known as the WEHAB Framework. A Working Group was established for each of these key areas and a report prepared in respect of each one. While the issue of access to energy services was only one of five key energy-related issues addressed by the Working Group on Energy, 43 the report drew particular attention to the strong link between access to energy services and the eradication of poverty in developing countries, and amplified on the World Energy Assessment report. The report proposed the following three proposed “action areas” in this regard in its framework for action on energy: 44 “Action area 1: Reduce poverty by providing access to modern energy services in rural and peri-urban areas”; “Action area 2: Improve health and reduce environmental impacts of traditional fuels and cooking devices”; “Action area 3: Improve access to affordable and diversified

42 Id, paras 10-11.
43 The other key issues identified in the report are: energy efficiency; renewable energy; advanced fossil-fuel technologies; and energy and transport.
energy services in Africa”.\textsuperscript{45} The Working Group proposed two major indicative targets: the reduction by half in the number of people without access to electricity (that is, 800 million to 1 billion people); and providing access to modern efficient cooking fuels and systems to all the 400 million households currently without such facilities.

The WEHAB Working Group report, together with the CSD-9 negotiated text, provided the basic framework for the ensuing agenda and discussions on energy at the World Summit on Sustainable Development (WSSD). Of the five major agenda items at the Summit, energy proved to be the most controversial and difficult to achieve consensus on amongst the parties.

Some commentators regard the final text of the WSSD Plan of Implementation\textsuperscript{46} to be a disappointment in that the parties failed to reach an agreement as to a global target on renewable energy supply. A number of States had proposed a target for 2010 of 10 per cent of total energy supply to be provided by renewable energy resources.\textsuperscript{47} This was rejected by a number of States, both on the ground of substance and on the ground of confusion in that there was no agreement as to what constituted a renewable energy resource. A further disappointment was that, in contrast with poverty reduction and access to safe drinking water and basic sanitation, there was no agreement reached on a target for increasing access to energy services.

In reality, it is submitted that in relation to energy the WSSD Plan of Implementation should be regarded as a qualified success. The mere fact that energy was a major issue at the Summit represents considerable progress from the position at the WCED conference ten years earlier where energy was not specifically addressed at all. A number of provisions calling for the international community to increase emphasis on energy efficiency and to diversify its energy supply to develop and promote renewable energy resources and advanced fossil-fuel and other energy resources were specifically included in the Plan of Implementation.\textsuperscript{48} In addition, the need for access to modern energy services was contained in paragraph 8. This paragraph requires States, inter alia, to:

\begin{quote}
    Take joint actions and improve efforts to work together at all levels to improve access to reliable and affordable energy services for sustainable development sufficient to facilitate the achievement of the millennium development goals, including the goal of halving the proportion of people in poverty by 2015, and as a means to generate other important services that
\end{quote}

\textsuperscript{45} The lack of access to modern energy services is most acute on the African continent. For example, it is estimated that only 10 per cent of the population in rural sub-Saharan Africa has such access at present: see WEHAB Working Group report, at 17.


\textsuperscript{47} The European Union and its member states, Canada, New Zealand, Iceland and Norway. Since then, the EU has gone further and agreed to increase the share of renewable primary energy from 6 per cent in 1995 to 12 per cent by 2010, and to increase the proportion of electricity generated form renewable energy resources from 14 per cent in 1997 to 22 per cent by 2010. The parties to the Latin American and Caribbean Initiative, signed in Sao Paolo in May 2002, agreed to a target of 10 per cent renewable energy by 2010: World Energy Assessment 2004 Update, at 69.

\textsuperscript{48} The major energy-related provisions are contained in paras 8, 19, 20 and 36.
mitigate poverty, bearing in mind that access to energy facilitates the eradication of poverty. This would include actions at all levels to:

(a) Improve access to reliable, affordable, economically viable, socially acceptable and environmentally sound energy services and resources, taking into account national specificities and circumstances, through various means, such as enhanced rural electrification and decentralized energy systems, increased use of renewables, cleaner liquid and gaseous fuels and enhanced energy efficiency, by intensifying regional and international cooperation in support of national efforts,.....recognizing the specific factors for providing access to the poor:.....

As can be seen, the document belatedly recognises the importance of achieving access to modern energy services as essential to the achievement of the MDGs and gives clear recognition to the direct link between the availability of modern energy services and the eradication of poverty. In relation to Africa, the Summit went further and endorsed a goal previously adopted by the New Partnership for Africa’s Development (NEPAD) to ensure access to energy services for at least 35 per cent of the continent’s population within 20 years, especially in rural areas.49

Further impetus towards achieving consensus in this area will be provided by the CSD, which resolved at its eleventh session in 2003 to focus its work in two-year cycles, with each cycle based on a number of selected thematic clusters of issues. Energy for sustainable development is one of the thematic cluster of issues to be considered in 2006-2007.

There is thus increasing, albeit belated, recognition in a range of forums that energy should move to the forefront of debates on sustainable development and the eradication of poverty. There remains, however, a long way to go for this realization to become reflected in initiatives that will lead to real changes on the ground. What further contribution can international law make to achieving this goal? One way forward is to harness its mechanisms in order to bring together into an international legal framework the work of a disparate range of bodies demonstrating the pivotal importance of access to energy services.

The regime of international human rights law provides considerable potential in this context. The catalogue of socio-economic problems identified in this paper as either directly or indirectly attributable to lack of access to energy services, are already recognized as having a legal dimension under this regime. Therefore, a human rights based approach particularly lends itself towards moving a stalled debate forward.

4 THE HUMAN RIGHTS APPROACH

Access to energy services as an international human rights norm

How might a right of access to modern energy services be formulated within the framework of human rights law? The major source of international human rights law is multilateral treaties between States, such as the two 1966 Covenants on Civil and

49 WSSD Plan of Implementation, para 56(j)(i).
Political Rights and Economic, Social and Cultural Rights.\(^{50}\) Despite their high profile in international dialogue the major human rights instruments do not enjoy the universal membership of States.\(^{51}\) Consequently it is important to determine whether the rights they contain are obligatory irrespective of questions of adherence to a particular treaty. Customary international law, binding on all States, therefore, plays a significant, if controversial role, in supplementing existing human rights treaty norms. Moreover, independent customary norms may emerge through the practice of States and add to the existing conventional body of rules.

To date there are no international treaties that specifically refer to access to energy services as a right. This does not rule out the possibility of an emerging customary norm to this effect. Whatever the way forward any argument in support of access to modern energy services as a human right will place considerable reliance on its link with the existing treaty obligations of States in the field of socio-economic rights. It is increasingly apparent that the socio-economic goals contained in the Covenant on Economic Social and Cultural Rights cannot be achieved without access to such services. So in effect the argument can be made that the right to access to modern energy services is already implicit in a range of existing human rights obligations.

The starting point for such an approach is Article 11 of the Covenant that sets out a number of rights essential for the realization of the right to an adequate standard of living, including access to “adequate food, clothing and housing, and to the continuous improvement in living conditions”. As explained above, access to energy services is fundamental to cooking, lighting, heating and cooling, and sewerage. Similarly Article 12 of the Covenant confers the right to the highest attainable standard of physical and mental health. The acquisition of such a standard is impossible without access to sustainable energy services. As we have seen, not only is energy a pre-requisite to the supply of hospital services and equipment but also the maintenance of health is compromised by the use of traditional fuels for cooking. Articles 6 and 7 of the Covenant establish the right to work. The majority of employment possibilities require access to sustainable energy. While very basic farming, manual work and craftwork may be an exception, access to lighting, heating and cooling, clean water, modern machinery, telephones and computers are basic requirements nowadays in order to truly meet the right to full and productive employment promoted by these Articles. In particular, the right to safe and healthy working conditions, as set out in Article 7 of the Covenant, is not possible without access to energy. Finally, Article 13 of the Covenant establishes the right to education. While it may be possible to educate children to a certain level without access to energy, the effective implementation of this right requires access to modern energy services.


\(^{51}\) As at 24th November 2004 there were 154 States parties to the *International Covenant on Civil and Political Rights*, and 151 States Parties to the *International Covenant on Economic, Social and Cultural Rights*. Moreover, in increasing numbers of domestic legal systems, customary international law enjoys a higher status than treaties, see B Simma and P Alston, “The Sources of Human Rights Law: Custom, *Jus Cogens*, and General Principles” (1992) 12 *Australian Yearbook of International Law*, 82 at 85-88.
This interrelationship between energy with other socio-economic rights of fundamental importance is evident in other international and regional instruments. For example, The Convention on the Elimination of Discrimination against Women requires States to eliminate discrimination against women particularly in rural areas and to ensure that they “enjoy adequate living conditions, particularly in relation to housing, sanitation, electricity and water supply, transport and communication.” Article 11 of the Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights provides that “everyone shall have the right to live in a healthy environment and to have access to basic public services”. Traditionally public services would include the supply of electricity and, moreover, the other public services such as transport, health and clean water, are themselves not available without energy.

Further links between socio-economic rights and access to modern energy services is evident in the work of a wide range of international organisations and agencies. For example, in the sustainable development framework, access to energy is referred to in paragraph 18 of the Johannesburg Declaration on Sustainable Development as a basic requirement for human dignity. The identification of energy as part of the socio-economic rights framework of rights is also reflected in the report of the UNIFEM Independent Experts in response to Security Council resolution 1325 of 2001 addressing the situation of women in times of armed conflict. In the context of reconstruction following armed conflict, the Experts observed that “[w]ater, food and energy must be provided in a safe environment”.

A similar link between energy, in this case electricity, and socio-economic rights has also been argued to flow from Article 16 of the African Charter on Human and Peoples’ Rights, that confers on all individuals the right to enjoy the best attainable state of physical and mental health and that States parties should take the necessary measures to protect the health of their people. The African Commission on Human and Peoples Rights found that the failure of the Zaire (Democratic Republic of the Congo) Government to supply basic services such as safe drinking water and electricity was a violation of that Article.

There is in addition emerging State practice that supports the view that energy is essential for the realization of socio-economic rights. For example, in the context of the right to housing enshrined in the South African Constitution the Constitutional

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54 UN Doc. A/CONF.1999/L.6?Rev.3 (4 September 2002). Paragraph 18 states: “We welcome the Johannesburg Summit focus on the individuality of human dignity and are resolved through decisions on targets, timetables and partnerships to speedily increase access to basic requirements such as clean water, sanitation, energy, health care, food security and the protection of biodiversity…”.
Court of South Africa recognised that the realization of this right could require the provision of other services including energy:

The state’s obligation to provide access to adequate housing depends on context, and may differ from province to province, from city to city, from rural to urban areas and from person to person. Some may need access to land and no more; some may need access to land and building materials; some may need access to finance; some may need access to services such as safe water, sewage, electricity and roads. 57

It is by no means unprecedented to argue that the specified rights in the Covenant are dependent for their fulfilment on other rights. For example an analogy with the current proposal can be drawn with the so-called Right to Water, elaborated in General Comment No 15 of the United Nations Committee on Economic, Social and Cultural Rights (CESCR) in 2002. 58 As part of its mandate to assist States in implementing the terms of the Covenant, from time to time CESCR has detailed the substantive obligations that it regards as essential for the effective realisation of the terms of the Covenant. 59 In fact CESR argues that access to water is a right under the Covenant itself on the basis that although not specifically identified as such the recognition of such a right is integral to the realization of so many of the rights enshrined in the Covenant. For example, CESCR argues that the realization of the right to an adequate standard of living (Article 11 of the Covenant) is dependent on a number of rights “including adequate food, clothing and water”. The Committee notes that the use of the word “including” indicates that the rights enumerated are not exhaustive and concludes that water was clearly essential for achieving an adequate standard of living. Moreover, the right to water is “inextricably related” to other rights enumerated in the Covenant such as the right to adequate housing and adequate food (article 11, para 1), the right to the highest attainable standard of health (article 12, para 1), the right to gain a living by work and the right to take part in cultural practices (article 50, para 1(a).

The Committee’s Comments, although influential, do not bind States parties to the Covenant. Moreover, its approach to the assessment of the state of the law is somewhat optimistic. The articulation of a novel independent right, irrespective of how intrinsic it is to the existing obligations of the Covenant, would need support in the practice of States. To date such an acceptance by States of the range of the obligations in the Covenant so as to include water is absent. 60

A somewhat more conservative approach is reflected in a policy paper produced in 2004 by the IUCN Environmental Law Program on the Right to Water. 61 After a

58 CESCR was set up under ECOSOC Resolution 185/17 in UN Doc E/1985/85, at 15, and assists ECOSOC in fulfilling its supervisory role under Arts 21 & 22 of the Covenant in relation to considering States Parties’ reports (see para 1 ECOSOC Res 185/17).
61 John Scanlon, A Cassar and N Nemes, Water as a Human Right, IUCN Environmental Policy and
thorough investigation of the numerous express and implied references to water in conventional documents and the practice of States, the paper concludes that although there is no established right to water it is an “implicit component of either existing fundamental human rights, or is expressly included in non-binding instruments that are designed to achieve specific ends”.

An impetus for drawing the link between access to clean water and human rights in the IUCN’s report is as a strategy towards the achievement of the MDGs that specifically include the improving of access to safe drinking water.

The fundamental importance of access to energy services cannot claim the broad recognition in international documents as can the emerging ‘Right to Water’. Nor is energy specifically included in the MDGs. Nevertheless, an even stronger case for access to modern energy services to qualify as a human right can be mounted. The range of socio-economic rights that are dependent for their effective realisation on access to modern energy services is considerably broader than those that require water. Access to clean water itself requires energy. Indeed the achievement of the MDGs to reduce by half the proportion of people who do not have access to safe drinking water will require one million water pumps. To put it simply: the right to clean water that underpins a range of human rights is itself dependent on a right to access for energy services. This hierarchy should be recognised and reflected in legal norms. Therefore, the claim of access to energy services to a prominent position in debates over the realisation of socio-economic rights is a strong one. Without it there are serious limits on what can be achieved in the realisation of the aspirations of peoples to sustainable development.

**Elaboration of the Right to Access to Energy Services**

What would a legal right to access to energy services consist of? The basic right would be designed to ensure access on the basis of equality and non-discrimination to a sufficient, regular, reliable, efficient, safe, and affordable supply of (ideally clean and sustainable) energy.

Clearly any obligations imposed must be as realistic and achievable as possible. A realistic approach is relevant in a number of contexts. For example, the supply of energy first and foremost must match the primary needs of the community it will serve. As discussed earlier, the major need for energy in the domestic context is for cooking purposes, minimal refrigeration and for lighting in the evening. The implementation of the right should require the supply of just sufficient energy to meet the most pressing needs of cooking, lighting and refrigeration. For health services and to a lesser extent educational purposes, a constant supply of energy is crucial. Therefore, the idea of regularity relates to ensuring an adequate supply for all these purposes. Moreover, there must be no arbitrary disconnections. Energy services are of limited assistance if they are haphazard and unreliable.


62 Water as a Human Right, at 12.

63 Ibid at vii.

64 See WEHAB Working Group report “Action Area 10: to provide the use of renewable energy to facilitate access to safe drinking water” (at 20). The authors of Water as a Human Right emphasize that any right to water must incorporate the requirement of sufficiency of supply and economic accessibility (at 2).
A further issue relates to safety. Electricity supplies must not be dangerous either through inadequate safety standards in their installation or through inadequate maintenance. As maintenance requires significant expenditure and technological expertise there is a danger, however, that this will not occur in less developed States. Therefore, a safe system must be a priority.

A realistic approach must also be brought to bear in the context of affordability. If the energy is made available but supplied at a price beyond the means of many of those in poverty this will infringe the requirement of equal access and non-discrimination. Affordability is obviously a complex multi-faceted issue and it is in this context that the major obstacles to implementing the right will be experienced. Affordability may require the adoption of temporary subsidies for the poorest households that could be phased out over a period of time. This is not necessarily inconsistent with a market-based approach. The authors of the World Energy Assessment 2004 Update state (at 83):

This strategy [of temporary subsidies] could be made entirely consistent with a shift to greater reliance on market forces to efficiently allocate resources. For example, a rural energy concession could be created to bring adequate energy services at a set price to a particular rural area; if the concession was awarded competitively, market forces would find the least costly mix of energy technologies with the least amount of subsidy to satisfy the concessionaire’s obligation to provide affordable energy services to all.

By clean it is meant that the energy itself is from non-polluting sources and not traditional sources such as wood and dung. For example, as we have seen, the WEHAB Working Group has identified the importance of modern energy services in improving health that is being compromised by the use of traditional fuels and cooking devices. The need for energy to be sustainable is nowadays of considerable importance. The balancing of the realisation of human rights with sustainable development is a consistent theme in a variety of contexts. For example in its elaboration of the right to water CESCR refers to paragraph 25(e) of the Johannesburg Plan of Implementation where, although water for basic human needs is given priority, the preservation of ecosystems and their functions remains a factor in the allocation process. In undertaking the same task, namely providing a content to the right to water, the IUCN frame the debate in terms of a rights based approach supplemented by an ecosystem approach. The same considerations are applicable to the supply of energy which should not be at the expense of environmental imperatives. States should be encouraged to develop alternatives to fossil fuels such as solar and wind energy as a means of implementing their human rights obligations.

Non-discrimination and equality are features common to all human rights irrespective of their provenance. For example, implementation of this right must take account of the particular needs of women in relation to energy and the difficulties they experience in meeting those needs. The Independent Experts appointed by UNIFEM in response to Security Council resolution 1325 on women and armed conflict, identified the gender consequences of recent patterns in the provision of aid for

65 See General Comment No. 15 at 3 note 6.
reconstruction of war torn societies. The adoption of policies that require public sector downsizing and the expansion of the free-market economy have particularly harsh consequences for women. They are the first to be affected by strategies that undermine the provision of essential services by the public sector.

While seemingly gender neutral, every policy decision made in these sectors [health care, education, water, transportation, energy, housing and sanitation] will drastically affect women’s lives since they are precisely the sectors in which women provide the majority of their unpaid labour”. The privatisation of electricity, ….is particularly devastating for women, who generally … are unable to afford market rates for electricity....

Consequently, the Experts called for the “establishment of macroeconomic policies in post-conflict reconstruction that prioritize the public provision of food, water, sanitation, health and energy, the key sectors in which women provide unpaid labour. Special attention should be paid to the consequences for women of decentralization policies”.

The phenomenon of privatisation that is a concern for the implementation of socio-economic rights generally will also impact on any right to energy services. The mere fact of privatisation, however, does not absolve a State from ensuring that private actors comply with human rights obligations.

Clearly a great deal more work and the input of many actors is required to elaborate more fully a right that would be meaningful to the intended recipients of its benefits. What we have provided is the outline of what are essential characteristics of such a right.

Why a Human Rights Approach?

There are significant advantages in treating access to energy services as a human right. For example, the existence of such a right imposes obligations on States, both at the national and international level. In the most general sense it is agreed that a State’s obligations in relation to human rights are threefold, to respect, to protect and to promote. The exact nature of the obligations imposed on States in relation to socio-economic rights such as those encompassed by the Covenant, however, is a matter of controversy. The relevant Article (art 2.1) is couched in general terms and requires States to take steps “with a view to achieving progressively the full realization of the rights recognised”. It is recognised that the ability of States to achieve this result will

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66 UNIFEM Report at 129.
67 UNIFEM Report, recommendation 20 at xii.
69 For an example of the elaboration of a developing socio-economic right, see General Comment No 15, and Scanlon et al, at 27-31.
70 See for example, The Right to Water op cit at 9-11 and 28-36 (detailing the consequences for States and other international actors of a rights based approach).
vary and is limited by available resources. However, CESCR has argued “that a minimum core obligation to ensure the satisfaction of, or at the very least, minimum essential levels of each of the right is incumbent upon every state party”.

As to enforcement, human rights law is unique in international law in that rights under this regime are owed to individuals rather than to States. So it is the individual that is the rights holder rather than the State. This characteristic of human rights has led to a distinctive regime of enforcement and one that is controversial in the context of socio-economic rights, where any right to access to modern energy services would be located.

Irrespective of the difficulties in identifying and enforcing socio-economic rights the existence of a concrete norm undoubtedly provides a focus for efforts at both the national and international level to bring pressure to bear on States to fulfil their responsibilities to their citizens.

Adopting a human rights approach, in the event that access to modern energy services were to become accepted as a legal norm a number of immediate steps would need to be taken to ensure that existing energy services are progressively made available on the basis of equality and non-discrimination to the whole population including those most disadvantaged such as the fringe dwellers and the rural poor. There are existing examples of how this can be achieved, for example, the project of bringing electricity to slum dwellings in Brazil and the electrification program in South Africa over the last decade.

The CESCR could play an important role the implementation of any such right. If the right is developed in the framework of the Covenant then it is open to the Committee to include the topic of access to energy services within its guidelines on the content of periodic reports to be submitted to the Committee by States Parties thereto. The effectiveness of such a strategy is another matter and the reporting system as a supervisory mechanism is the subject of sustained criticism. The particular mechanisms of the Covenant that relate to implementation and impose reporting obligations, of course only govern States Parties. However, if the right develops as a norm of customary international law all States are arguably bound to assist in the realisation of the right.

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72 A State Party to the Covenant is required to take steps to achieve the realization of the rights in the Covenant “to the maximum of its available resources” (art 2 (1)).
73 See General Comment No. 3, The Nature of States Parties’ Obligations.
74 There is a long standing debate as to whether economic social and cultural rights can really be regarded as rights at all given the fact that they are by alleged to be non-justiciable in the sense of being unable to be subjected to judicial scrutiny: see, for example, Philip Alston, “The Nature and Scope of States Parties’ Obligations under the Covenant on Economic, Social and Cultural Rights” (1987) 9 Human Rights Quarterly 156.
76 The effectiveness of the current reporting system of human rights instruments is regarded by many experts as unsustainable and in need of reform, see for example, UN Doc A/44/668 (8 Nov 1989), UN Doc A/CONF.157/PC/62/add 11/Rev 1 (22 April 1993) and UN Doc E/CN 4/1997/74 (27 March 1997).
A human rights approach to access to energy services would also bring on stream the whole of the United Nations human rights framework. To date what strategies there have been that have addressed this issue have been limited to UN agencies with a specialised focus on the environment. For example, the human rights agencies that are involved in protection and implementation of existing rights could focus on the role of energy services in achieving these rights.

Moreover, the accessing of the well established and extensive human rights machinery will help to fill a need identified by commentators in the energy field.\textsuperscript{77} They point to the fact that energy issues are considered in a wide range of disparate bodies where their importance is obscured. Consequently the debate over energy has been somewhat random and uncoordinated. The human rights framework may provide a mechanism for addressing this deficiency.

\section{Conclusion}

Despite the pivotal importance of energy to the realization of almost all socio-economic goals, to date there has not been a widespread recognition of this fact. This dependence is acknowledged in the sustainable development framework but as yet this insight has not moved across to the human rights arena. Human rights agencies and those responsible for the implementation of socio-economic targets could well start focusing on harnessing these precedents available from the environmental and sustainable development movements. A combination of the synergies of both these fields, energy and human rights, must move the debate forward.

Undoubtedly, there are significant limitations on the ability of human rights norms to provide a solution to a complex entrenched problem—the achievement of sustainable development through the respect for human rights. This is an issue that has been occupying the international community for decades. It is not suggested that a legal strategy based on human rights alone can provide clear and simple answers to the issue of ensuring access to energy services for the developing world or to overcoming poverty. What can be achieved, however, is the provision of a mechanism for utilising existing international legal mechanisms that have the potential to play a valuable part in efforts to resolve the problem. The recognition of the limitations of a legal model and the significant shortcomings inherent in a human rights focus do not detract from the reality that the articulation of access to energy as a legal norm will assist in ensuring that the issue receives increased world attention.

Considerable work needs to be undertaken in elaborating the content of such a right and its relationship to existing human rights—civil, cultural, economic, political and social rights and to sustainable development. Moreover, efforts should be undertaken to investigate the various ways in which this obligation on States could be met in relation to the access to energy services. Moreover, a range of alternatives can be formulated that States may wish to pursue to this end.

\textsuperscript{77} The WEHAB report identified access to energy issues and modern energy services as a key issue to be addressed by the international community (p15), and under the heading Framework for Action observed: “Currently there is no international or intergovernmental process to host or facilitate dialogue on priority energy issues” (p 16).
To date bodies that focus on energy and energy related issues have made little progress in improving access to energy services for the two billion of the world’s population that remain without its benefits. Perhaps bodies that take human rights as their focus can achieve more. It is worth consideration.