

THE HUMAN RIGHT TO ENERGY IN THE BRAZILIAN CONTEXT

EL DERECHO HUMANO A LA ENERGÍA EN EL CONTEXTO BRASILEÑO

MAX HOLLAND

Bachelor of International Affairs from George Washington University. Juris Doctor from Georgia State University. Former exchange student at Fundação Getulio Vargas. Fulbright Scholar at the Universidade Federal de Uberlândia. Currently working as foreign legal consultant in Uberlândia.

JUAN ORDÓÑEZ

Bachelor of Law from the Universidad Centroamericana, Managua-Nicaragua. Currently studying for a Master Degree in Public Law through the OAS Program at the Universidade Federal de Uberlândia -Brazil.

ABSTRACT

This paper¹ will explore the basic legal framework for understanding the right to energy, as it applies to the Brazilian context. It will first outline basic international frameworks that justify the legal consideration of energy as a human right and as an environmental development obligation. After that, this paper will detail how other countries understand this obligation through statute and case law. Then, this paper will posit basic questions that are critical to framing the dialogue about the right to energy. Within that framework, this paper will discuss the right to energy in the Brazilian context and the legal application of such a right. The conclusion of this paper will investigate domestic, regional, and international support structures that can assist Brazil in its development and implementation of the right to energy.

KEYWORDS: Human rights; energy; Brazil.

¹ The authors would like to thank Cherokee Lynn for providing editorial assistance in reviewing the many drafts.

RESUMEN

Este artículo explorara parte del marco legal existente para entender el derecho a la energía, aplicado al contexto brasileño. Primeramente delinea los marcos internacionales básicos que justifican la consideración legal de la energía como un derecho humano y como una obligación de desarrollo ambiental. Seguidamente, este artículo detallara, cómo otros países entienden esta obligación a través de las leyes y jurisprudencia. Por tanto, este trabajo planteara preguntas básicas, que son criticas al encuadrar el dialogo sobre el derecho a la energía en el contexto Brasileño y la aplicación legal de tal derecho. La conclusión de este artículo investigara estructuras de apoyo domésticas, regionales e internacionales que pueden ayudar a Brasil en el desarrollo e implementación del derecho a la energía.

PALABRAS-CLAVE: Derechos humanos; energía; Brasil.

INTRODUCTION

Two billion people, globally, lack access to energy services (UNDP/WHO, 2009, p.1). A possible definition of such services might include electric lighting, clean cooking facilities, and fuel supplies. However, an adequate definition of services includes far more than just energy for lighting and cooking. Adrian Bradbrook, professor of law at the University of Adelaide, states that “energy services result from the combined operation of primary energy, various energy-related technologies, labor, materials and infrastructure.” (BRADBROOK, 2006, p.2). A clear example of energy services is all the energy used surrounding the activity of getting to work, including: the energy used to heat the water for a shower, the energy used to power the public transportation, and the energy used to prepare a meal to be eaten at work. Because there is limited access to such services, people without access to energy services do not receive the benefits from a country’s “economic development and increased living standards.” (UNDP, 2004, p.33). By failing to provide energy services, a country effectively severs this group from modernity. As a UN Working Group explained (in preparation for the World Energy Assessment in 2000),

“Although energy itself is not a basic human need, it is critical for the fulfillments of all needs. Lack of access to diverse and affordable energy services means that the basic needs of many people are not being met.” (WEHAB, 2002, p.7). Basic needs, provided by energy services in the international legal context were defined by the Brundland Report in 1986. They include: “cooked foods, 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 transportation.” (UNDP, 2000, p.44). Despite being left out of the Millennium Development Goals (MDGs), energy services were expressly included in the *World Energy Assessment 2004 Update*. The *Update* explains that “none of the MDGs can be achieved without much greater access to improved quality and quantity of energy services.” (UNDP, 2004, p.18). The *Update* went so far as to include in the Annex “a matrix of energy and the MDGs, illustrating the role of energy services in achieving each of these aims.” (BRADBROOK, 2006, p.6). The MDGs are uniquely important for framing the obligations a country has inside the international and domestic context because these goals were expressly agreed on by every UN nation. These countries (including Brazil) agreed that these goals form the blueprint for meeting the needs of the world’s poorest people.² While the MDGs are not binding international law, they do provide a framework for other obligations and customs outlined below.

The lack of energy services to fulfill basic needs not only affects the community as a whole, but it also entrenches inequalities within the community. Being forced to collect firewood and water for cooking prevents women from entering the job-force, intensifying the traditional inequalities that development projects are often attempting to reduce. Furthermore, the burning of firewood and solid fuels leads to increased health problems and environmental degradation, thereby compounding the problems created by a lack of energy services (BRADBROOK, 2006, p.6). Without electricity, a child is unable to study after the sun goes down, limiting the influence of his or her education. Without electricity, rural villagers are more likely to migrate into unprepared urban areas, again intensifying other traditional inequalities such as precarious land rights and economic access (UNDP, 2004, p.36). Without

²The background of this information was taken from the UN website explaining the MDGs, website: Background Information <http://www.un.org/millenniumgoals/bkqd.shtml>

electricity, the modes of transportation and communication that provide income-generating employment opportunities are unavailable to those who would otherwise be willing to pay for such energy services.

An international legal framework provides a foundation for determining the legality of leaving out nearly one-third of the world's population in global, state, and city development schemes.

1. RIGHT TO ENERGY (HUMAN RIGHTS APPROACH)

The first international legal framework that is useful in understanding the right to energy is a human rights approach. The International Covenant on Economic, Social, and Cultural Rights (ICESC) provides concrete rights that all signatory states must fulfill. Unlike its sister covenant, The Covenant on Civil and Political Rights (both written in the 1960s), this covenant focuses on more than solely freedom from oppression. As illustrated above with the MDGs, the ICESC's rights can only be adequately provided for if there is access to modern energy services. This section will outline each relevant article (right) in the ICESC and how energy services are essential for the providing and protecting those rights. Although Article 15 is the only article that explicitly acknowledges the right to energy, such a right is implicit in the reading of the rights listed below.

Article 11 states that an individual has a right to an adequate standard of living, adequate housing, and a continuous improvement of living conditions. (UN, 1966, art. 11) When defining adequate housing, Comment 4 provides an elucidating perspective. It references the *Commission on Human Settlements and Global Strategy for Shelter*. The Commission wrote that adequate shelter comprises adequate light and basic infrastructure. (UN, 1991, no. 7). Furthermore, Comment 4 (used by the drafters to expand on ideas that might otherwise not be included in the report—either because of political contention or unclear definitions) goes on to describe what infrastructure should be included, in order to ensure the availability to energy services. Adequate housing “should” include “energy for cooking, heating and lighting, sanitation and washing facilities, means of food storage, refuse disposal, site

drainage, and emergency services.” (UN, 1991, no. 8-b). Electricity is a technological necessity in today’s infrastructure. Without electricity to power the water pumps, monitor the gauges, and control flow, the systems we have designed for sanitation and water access would not work. This logic follows for adequate food storage and refuse disposal. Without electricity, the populace could not keep meats or vegetables nor safely dispose of refuse without burning it or throwing it in waterways.

Article 12 describes the right to the “highest attainable standard of physical health.” (UN, 1966, art.12). Here, the definition of Article 11 helps extrapolate the meaning of this right. The “highest attainable standard of physical health” demands access to at least emergency services. Such emergency services must include proper medical attention, as “energy is a pre-requisite to the supply of hospital services and equipment.” (BRADBROOK, 2006, p.12). The right of an individual to receive adequate medical services, within the community or its surroundings, mandates that there is enough power to store vaccines, blood, and other vital material. The national reports, to be created by each signatory country, further integrated this understanding of the right. The reports must specify “the number of individuals and families currently inadequately housed and without ready access to basic amenities such as electricity.” (UN, 1966, arts. 16-17). Additionally, any real effort to prevent, treat, and control modern diseases includes technology that requires electricity.

Article 13 provides each individual with the right to education (UN, 1966, art.13). This focus on education isn’t merely the passing recognition of an individual’s right to become more informed. The ICESCR outlines that the education “shall be directed to the full development of the human personality and the sense of its dignity.” (UN, 1966, art.13). This right, then, goes beyond access to energy to the promotion of its benefits. The proper access to education includes the ancillary obligation of regularized education, such as homework and studying. Providing electrical services allows students to not be reliant on sunlight, allowing them opportunities to study at any time of day in any season. Moreover, access to libraries (with computers and internet) allows for a fulfilling education where a student can attain the information collected by modern society and not be limited by the physical resources of a school. Comment 4 is useful here, as it further defines adequate

housing. There is a location element to the right that includes access to education services. This means that the notion of access to education must include the access to the energy required for the transportation of students to class and the social services that keep the students there. Those critics that argue that transportation, such as foot power, does not require electricity miss the overall requirements of energy in modern, developed, and sprawled cities. Walking five miles (frequently up steep hills, specifically in Brazilian slums) for job, food, or school is not a tenable or sustainable form of social integration.

Article 15 explicitly provides for a basic an explicit right to energy. The right it confers on an individual is the right of everyone to “enjoy the benefits of scientific progress and its applications.” (UN, 1966, art.15). For those without access to electricity or electrical services, they are constructively kept from receiving the benefits of scientific advancement. The ability to create, store, and use energy in a productive manner is a major part of scientific advancement. By productive, we mean for use in health, political participation, leisure, innovation, and education. Examples of such access range from the seemingly innocuous action of listening to the radio to the profoundly powerful tool of using Twitter to act on that news. The direct impact of electricity flows into education, medicine, and almost every facet of modern society. Without electricity and the ancillary services that surround it, a person cannot possibly benefit from the application of scientific progress. The impact of this isolation cannot be overstated; a person not only exists in a reality of previous centuries, but also does not have the ability to innovate using the tools of modern society.

Another convention that describes the rights of an individual to energy is the *Convention on the Elimination of All forms of Discrimination against Women*. Article 12, of this convention, demands that a signatory country must “ensure access to the field of health care” (UN, 1979, art. 12) for its female citizenry. This article supplements the ICESCR claim that health care is a right for all people, while seemingly defining health care in a way that includes energy services. The article uses the words “field of health care” when describing what an individual has access to, which is more expansive than just having access to health care. The “field” does not only mean the direct access to care, but also describes the ability to benefit from the secondary and tertiary services of health care. If it were only the direct access to

health care, the field would not be included. With the usage of the word field, we can extrapolate this broader definition. While direct care includes energy services, access to the other ancillary benefits of health care requires access to transportation services, reliable distribution of medicines (often times needing to be refrigerated) and care, and the infrastructure required to fulfill and monitor the care.

Article 14 also contributes to the articulation of the right to energy, within the *Convention*. This article extrapolates on health services by stating that all women have the right “to have access to adequate health care facilities”, as well as “to economic opportunities.” (UN, 1979, art. 14). These rights, as described above, cannot be provided in any reasonable way without access to energy services. Moreover, the *Convention* directly addresses the right to energy in Article 14. Here, the final line reads that women have the right “to enjoy adequate living conditions, particularly in relation to housing, sanitation, electricity and water supply, transportation, and communication.” (UN, 1979, art. 14). Such a direct statement concerning adequate housing and transportation further strengthens the argument that the ICESCR’s rights implicitly include the right to electricity within the text.

1.1 INTERNATIONAL CASE LAW (HUMAN RIGHTS APPROACH)

International case law details the international legal community’s understanding of how the above rights should be interpreted. In 1996, European countries gathered together and signed a European Social Charter. Article 31 of that charter states that the signatory countries must “take measures designed to promote access to housing of an adequate standard.” (COE, 1996, art. 31). In 2006, the European Federation of National Organizations Working with the Homeless (FEATSA) sued France for non-compliance of Article 31. The European Committee on Social Rights, established by the 1996 charter, was the forum for the suit. FEATSA argued, in the relevant parts, that France violated the charter for “insufficient progress as regards to the eradication of substandard housing and the lack of proper amenities.” (ESCR, 2008, p.24).

The European Committee recognized the difficulty in providing a population with total access to energy and energy services. It wrote that a country's obligation to housing rights "must take a practical and effective, rather than purely theoretical, form." (ESCR, 2008, p.20). However, the Committee reaffirmed the definition of adequate housing made by the ICESCR and its comments. Section 76 of the decision defines adequate housing as including electricity, in much the same fashion as the ICESCR Comment 4 had done in the previous decade (ESCR, 2008, p.23). By providing a legal definition, the Committee has helped guide a country to understand its own obligations. The expressed inclusion of electricity in the decision strengthens the rights conferred by the ICESCR and forces such definitions into the European Charter.

The Democratic Republic of the Congo (known at that time as Zaire) faced a similar situation in 1995. Free Legal Assistance Group sued the DRC over the failure to fulfill its duties, as outlined by the *African Charter on Human and Peoples' Rights*. Article 16 of the African Charter, also known as the Banjul Charter, follows the same structure as Article 12 of the ICESCR. It states that "every individual shall have the right to enjoy the best attainable state of physical and mental health." (OAU, 1981, art.16). The African Commission adjudicating the case against the DRC determined that the country had failed to ensure this right because of the "failure of the Government to provide basic services such as safe drinking water and electricity and the shortage of medicine as alleged in communication 100/93 constitutes a violation of Article 16." (ACHPR, 1995, no. 47). By explicitly stating that electricity is a basic service in the enjoyment of physical and mental health, the Commission re-affirmed the argument that the access to electricity is embedded in the rights agreed by the signatories of the Charter.

2. RIGHT TO ENERGY (INTERNATIONAL ENVIRONMENTAL CONVENTION APPROACH)

Analyzing international conventions, specifically addressing energy services, is the second approach to understanding the international framework. While the analysis is the same, the principals that would guide local courts would be different.

Even if the courts are hesitant to extrapolate energy services as a human right, there are conferences and conventions that directly address this issue. As explained below, we shall see that such conferences and conventions dictate a country's obligation to its citizenry. In order to understand how this right is defined, it is critical to understand the historical context which led to its development. In 1986, the Brundland report first recognized the importance of energy and reasoned that "energy should be at the cutting edge of national policies for sustainable development." (BRADBROOK, 2006, p.7). The next initiative came at the 1992 UNCED Conference in Rio de Janeiro. Here, Bradbrook argued that oil-producing nations were able to water down the final text of Agenda 21 (the report produced by the UNCED Conference). The diluted text "largely ignores energy issues, which are limited to indirect references in the chapters on human settlement development, protection of the atmosphere, and promoting agriculture and rural development." (BRADBROOK, 2006, p.7). In 1997, the Kyoto protocol (the product of an international convention, focusing on climate change) was a non-binding document that makes passive references to energy services, mainly through energy efficiency and renewable energy resources.

The major international report that pushed the global policy-making conversation towards universal access to energy services was the 2000 World Energy Assessment. The UN gave the Commission on Sustainable Development (CSD) a mandate to "focus on the sectorial themes of energy, the atmosphere, and transport." (BRADBROOK, 2006, p.8). Because 33% of the world's population lacks energy services; the Commission agreed that the current development scheme was unsustainable. Furthermore, it posed that there should be a focus on rural areas, as well as a national effort focusing on energy issues. Their Assessment, which flowed from that mandate, stated that "improving accessibility of energy implies finding ways and means by which energy services can be delivered reliably, affordable, in an economically viable, social acceptable and environmentally sound manner." (DSD, 2001). It further recommended that governments should a) "establish or strengthen" "arrangements" that "promote energy accessibility"; b) "develop locally available energy resources"; c) "support electricity services based on grid extension and/or decentralized energy technologies"; and d) "support equal access for women to sustainable and affordable energy technologies." (DSD, 2001).

The World Energy Congress, in 2001, built upon the structure of the World Energy Assessment. The Congress developed a working group to focus on the five areas of interest, WEHAB: water, energy, health, agriculture, and diversity. (BRADBROOK, 2006, p.9). This WEHAB Working Group outlined three “action areas”: “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 2: Improve access to affordable and diversified energy services in Africa.” (WEHAB, 2002, p.17). In order to achieve these goals, the Working Group set two targets: “reduction by half in the number of people without access to electricity; and providing access to modern efficient cooking fuels and systems to all the 400 million households currently without such facilities.” (BRADBROOK, 2006, p.10). While the final Plan of Implementation did not include targets for an increased access to energy services, it did expressly state the need for such services. The lack of direct targets likely occurred because countries often hesitate to be forced into meeting goals that are either outside the political will of the population or come at an extreme financial cost. Reaffirming the World Energy Assessment, the Plan of Implementation stated that the achievement of the MDGs were inextricably intertwined with the access to energy services and could not be completed without such access. (BRADBROOK, 2006, p.6).

2.1 NATIONAL INTEGRATION

A few countries have implemented domestic guarantees to ensure the right to energy. France has a two-pronged approach to securing energy services for all its citizens. The first is a direct legal statement of such a right. On February 1, 2000, France passed a law that stated “the right of all to electricity,” thereby, expressly conferring that right on all its citizens (Law No 2000-108, France). The second approach is a more implicit inclusion and can be understood through two separate legislative acts. As Henri Smets of the Academie de l’Eau writes in his paper, *For an Increased Effectivity of The Right to Drinking Water in France*;

Everyone is entitled to a sanitation service that conforms to health and environmental standards and has the right to connect to those sewer systems located in the vicinity. 13 000 municipalities have no sewer system and so rely on the proper functioning of on-site sanitation facilities (19% of the population). (SMETS, 2011, p.6).

As discussed above, the right to sanitation at this level demands access to general energy services. The other implicit guarantee comes from the *Family and Social Action Code*, which states that “any person or family experiencing particular difficulties, especially with regard to their assets, lack of resources or living conditions, is entitled to assistance from public authorities to ensure the continuing supply of water, energy and telephone services to their home.” (SMETS, 2013, p.10). The contribution to support energy services inside the home, by the government, seems to imply that the French government views electricity as a right conferred on every individual within the country.

The DRC has created an even stronger protection on the right to energy compared to France: it is in their constitution. Article 48 of the Congolese Constitution reads “the right to decent housing, the right of access to drinking water and to electric energy are guaranteed.” (DRC, 2005, art.48).

South Africa has closely followed the French and Congolese model, but instead of using constitutional reform, they have used legislative action. South Africa’s Electricity Act No. 41(1987) “imposes a duty on every licensee such as a municipality to supply electricity within its district to every resident who applies for it, provided such applicant is able to make satisfactory arrangements to pay for it.” (Meyer v. Moqhaka Local Municipality, 2004, p.14). This indicates that the government has a duty to provide energy for any individual who is ready, willing, and able to pay for such a service. South Africa’s Supreme Court has further defined this right in the case of *Meyer v. Municipality*. The court outlined the process for understanding this right. The court interpreted the law to state that “the licensee [municipality] shall supply energy to every applicant.” (Meyer v. Moqhaka Local Municipality, 2004, p.16). Should a person request energy services, the onus is on the municipality to prove that the individual is unable to pay for the services requested. If such proof is not available, the licensee must provide the power requested. (Meyer v. Moqhaka Local Municipality, 2004, p.16). The court goes on to

say that “it follows from the above that the electricity supplier cannot on any other ground refuse to supply electricity to anyone who requires it.” (Meyer v. Moqhaka Local Municipality, 2004, p.17). While this right is not guaranteed —applicants must have funds to pay for the right—the court has indicated that the inability to pay is the only limiting factor. Should the South African government muster enough political will to subsidize such a right, that inability goes away and, therefore, would guarantee the right to its entire citizenry.

2.2 BROAD LEGAL ISSUES

With this understanding of the international obligations and the domestic interpretations of the right to energy, there are some broad legal questions that must be addressed. While each country must answer them in the local cultural context, they are critical in setting the framework for any discussion of domestic implementation. The questions are listed below, with specific points of contention in parenthetical statements.

1) How much energy do people have a right to? (Should it be enough to power households or just basic amenities such as stove and lights?)

2) What is the designated purpose of that energy? Can a government pre-assign the purpose or is that an infringement on individual rights? Would the purpose of the electricity determine costs? (Could a government state that a household can only use the electricity for A/C and refrigeration, but not for a TV or radio? If TVs and other recreational electronics were permitted, would that change the price structure?)

3) If the government can pre-assign the electricity, who within the government is making this decision? (Would it be the energy providers or a social welfare department?)

4) Who would pay for the developments? Who would pay for the energy usage? (A major point of contention is that those who require the development of electrical services don't have the funds to pay for additional services. Would electric

companies get tax breaks for developing these lines? Would the government subsidize the usage?)

5) Do these energy services have to be renewable? (Is it more important to provide energy to those without it, than to be overly concerned with the environmental impacts of the increased energy usage?)

3. BRAZIL'S INTERNATIONAL OBLIGATIONS

Brazil has signed international treaties that obligate it to act in certain ways. Brazil signed the International Convention on Social, Economic, and Cultural Rights in 1992. As international bodies further define these rights, Brazil must keep pace with these progressive changes to the treaty. Moreover, Brazil signed the Convention on Women in 1979, again binding itself to additional international standards. The ICSECR and the CEDAW also provide for their own adjudication methods. By signing onto these treaties, Brazil has accepted that international non-governmental agencies have the authority to review, report, and rule on the practices inside Brazil.

There are also conventions, working groups, assessments, and conferences that Brazil never directly signed up for or signed on to. However, this does not excuse them from following the rules determined by civilized nations. Customary international law, which is defined by the universally recognized rule of law established by civilized nations, provides an additional context for Brazil's obligations as a developed nation.

Other adjudication methods for determining the right to energy can be the Organization of American States, which Brazil is a signatory to. As a member of the Organization of American States, Brazil must live up to the obligations of the Charter that created the organization. The Declaration is the text that defines the human rights protected in the Charter (ICHR, 1989). By becoming a member of the OAS and ratifying other international treaties, Brazil has stated that it will be bound by those legal obligations. In the case of customary international laws, Brazil is not required to expressly consent to those terms, as these laws are considered either universal or acceptable to such a degree as to be persuasive to adjudicating bodies. The Inter-American Commission, a body whose role it is to receive complaints against specific

Declaration violations, could be used to determine Brazil's legal obligation and the extent in which it fulfills it.

3.1 BRAZILIAN APPLICATION

The case for the right to universal electricity is nowhere more relevant than in the favelas (another word of slum or shantytown) of Rio de Janeiro, Brazil. Ignored by development projects for most of their history, these communities are being thrust into the lime-light. With the 2014 World Cup and the 2016 Olympics being held in Rio and surrounding states, the Brazilian government has been forced to integrate this communities. Historically, if the favelas want to develop with the rest of Brazilian society, they must do it informally and with little government support or oversight. This has created an intricate illegal market. ANEEL, the Brazilian government agency that provides power, states that over 13% of the electricity in the market is stolen (NOVAIS, 2012). Not only are seven billion reals lost (3.4 billion dollars) due to this illegal activity, but the health and safety issues are even more damaging. Communities frequently see their homes destroyed due to electric shock, short circuits, and burning (NOVAIS, 2012). If the communities are unable to steal the electricity, as it is not provided by the companies or government, they must use the black market. The black market for electricity is controlled by gangs, creating price gouging and preventing proper repair work. (DOWNIE, 2011)

The government has made commendable strides to change this historical trend. The Urban Pacification programs have attempted, and successfully in some locations, to curb the influence of drug gangs and bring normalcy to the communities. Not only do the redevelopment programs help isolate the violence, but they create more social and economic integration in two ways. The first is re-education of these communities towards proper energy use. With the decrease in electrical piracy, these communities are learning proper energy conservation techniques (DOWNIE, 2011). The second has been the retro-fitting of favela houses to include proper wiring (DOWNIE, 2011). The modernizing of the electrical infrastructure has not only changed the houses, but properly wired the community for greater access to other electrical services (DOWNIE, 2011). One clear example of

how this electrical development furthers social integration is the elevators recently installed in Rio. The elevators were installed at the foothills of the community and attached to a subway line. Where individuals had to walk the ten minute climb up steep stairs, now they can take an elevator directly to the top of the community. This matters to the elderly woman who couldn't walk up with stairs with her groceries. It matters to the child who couldn't get to school on time. It matters to the disabled, underemployed individuals who couldn't access the job markets below.

3.2 BRAZILIAN LEGAL ENFORCEMENT

The development schemes that are bringing electricity to these communities cannot only be justified in response to international mega-events such as the Olympic Games or the World Cup. International and domestic laws obligate such development in Brazil.

The Brazilian Constitution of 1988 outlines many specific obligations that would not be possible without the efficient dissemination of electrical services. Article 5 discusses the right to property. Article 5 goes further explicitly stating that the "property shall observe its social function." (Cn., 1988, art. 5). When looking to understand what a social function means, the following constitutional articles provide some elucidation. For instance, Article 6 states that every citizen has a right to education, health, work, and housing (Cn., 1988, art. 6). Using the international framework for defining housing, the Brazilian government would be under an obligation to provide adequate electricity.

Additionally, the same logic using the right to education, work, and health would demand that the right be extended to electrical services. Constitutional articles 196 and 197 discuss the responsibilities of the state to provide health services through a unified healthcare system that is funded by all levels (Cn., 1988, art. 196-197). The city of Rio de Janeiro also has an expressed obligation to plan and contribute to those healthcare services. This supports the argument that not only is electricity inherently intertwined with healthcare, but that the city and state have a responsibility to provide such services. Article 205 further explains that everyone has

the right to education (Cn., 1988, art. 205). The constitution further explains that it is the obligation of the state/city to provide access to education. The city must spend 25% of its taxes on education (Cn., 1988, art. 212) and every decision the city makes must be in consideration with the broader educational scheme (Cn., 1988, art. 206). As discussed above, the access to electrical services is inherently tied with access to education. A child cannot get to a school outside of the favela without the access to transportation. A child cannot study after school without access to lights in the household. The financial framework is already in place to fund such development projects, as the 25% tax allocation towards education can be partially used to supplement the funding of electricity and energy sources.

3.3 ACTUALIZATION OF ENERGY SERVICES

The fundamental legal questions may get answered, forcing a country to provide for the newly defined human right of electricity. However, those legal issues do not answer the feasibility question. Should a person have a right to electricity? Is Rio de Janeiro required to pay for the electricity or merely the infrastructure to allow for the access to such electricity? Who pays for the electricity is a local question, which will be decided on a municipality level (while having an open dialogue with the stakeholders in the affected favelas). Additionally, the development of an electrical infrastructure will require major capital investment. To prepare for the World Cup and Olympics, Brazil has, and still is, injecting massive sums of money into its infrastructure. The question becomes whether or not that money can be spent in an efficient way, targeting those who need the electricity. The fear is that the money spent will be on those areas where tourists visit and not based on long term local needs.

In order to guarantee that the development money is spent on providing electricity to areas in need, there must be a concentrated effort to create a plan for development, monitor such development, and implement remedies for areas without current development schemes.

Domestic action could be taken through the administrative, political, and judicial realms. The energy sectors, through an energy department mandate, could

develop electrical services schemes that prove the feasibility of the developments. The political realm could demand human rights impact assessments (modeled after the environmental impact assessments) to monitor the current situation and proposed development plans. This would allow for a diverse range of solutions, including small scale solar power and large scale underground wiring. The judiciary also has a role in this progressive definition. Brazil, and especially Rio, has a robust public prosecution arm that allows it to address a significant number of issues, especially labor and land issues. Even though the culture is not as litigious as other nations, the public prosecutors could address the lack of energy services themselves. Just as Brazil has created National Rapporteurs to evaluate housing rights issues in the run up to the mega-events, those same actors could investigate the feasibility of providing electricity and monitor the actual implementation.

Regional and international actors could also provide development and monitoring support. The Inter-American Commission on Human Rights (IACHR) is a body that can adequately develop and monitor the implementation of such a plan. As the right to energy seems to be implicitly recognized as an international goal (if not a right), the IACHR is the ideal body for such actions. The Inter-American Court is also well positioned as a regional venue for adjudication. Globally, the ICESCR has a solid institutional framework for addressing issues. The ICESCR has development funding standards, which would demand that energy be included in the development loan programs. International agencies can provide financial assistance to lessen the burden on Rio municipalities. However, a current obstacle is that less than five percent of international aid goes to housing. With a refocus on the right to energy, this percentage could swing greatly. In regards to monitoring, the ICESCR has a self-imposed reporting mechanism for member countries. As energy should be regarded as a human right, the ICESCR also has the ability to make reports, recommend action by Brazil, and recommend action by other UN agencies and actors. The ICESCR can commission UN Special Rapporteurs to supplement the National Rapporteurs, provided by Brazil. There can also be an Advisory Group established to monitor the progress, similar to the mission in Curitiba, which deals with forced evictions. In order to find an international adjudication venue, Brazilians can use the Optional Protocol to the ICESCR, which allows for complaints to be filed against member states.

CONCLUSION

At this stage of our research we have clearly established two main points, the first one is that the access to energy is a human right, not only based on a wide range of treaties and recommendations from advocacy groups, but because in order to achieve any level of the principle of human dignity, energy is needed –either to ensure health, have access to clean fresh water and sanitation, or having adequate housing.

The second point is that developed countries like the United States, and countries (like Brazil) whose influence across the world is growing, need to start thinking ahead and include the need to have energy in their human rights and development regimes. This serves as a way to promote worldwide security and development and to fulfill the international agreements signed, which promote the creation of clean sources of reliable and efficient energy.

With the establishment of the right to energy, Brazil has an additional responsibility to provide electrical services to those areas that currently are in darkness or forced to steal light. However, Brazil does not need to deal with the additional financial burdens of development, monitoring, and enforcement, alone. There is a strong regional and international framework that can provide a broad range of support. The inclusion of energy as a human right has triggered the creation of support structures for Brazil and Rio de Janeiro to lean against. The international obligations that Brazil has both explicitly and implicitly bound itself to are unique in that they provides the broader international community with methods of assisting. NGOs and supra-governmental organizations assure that the people have adjudication venues, the governments have funding mechanism, and the planners have development strategies.

The inclusion of a broader understanding of human rights is difficult because it forces acceptance and standards on all signatory nations. However, by promoting the human right to energy, a country can have a more holistic approach to the

implementation of their human rights regime. This will not be easy, nor will it come quickly, but it is part of a real and integral approach in the struggle for equality.

REFERENCES

ACHPR. **Free Legal Assistance Group and Others v. Zaire**: Comm. No. 25/89, 47/90, 56/91, 100/93. Praia. 1995. Available at: http://www1.umn.edu/humanrts/africa/comcases/25-89_47-90_56-91_100-93.html Accessed on: 24/03/2015.

BRADBROOK, Adrian. **Access to energy services in a Human Rights framework**. 2006. Available at: http://www.un.org/esa/sustdev/sdissues/energy/op/parliamentarian_forum/bradbrook_hr.pdf Accessed on: 24/03/2015

BRASIL. **Constitution (Cn) (1988)**. Constitution of the República Federativa do Brasil. Brasília, DF: 1988. Available at: http://www.stf.jus.br/repositorio/cms/portalStfInternacional/portalStfSobreCorte_en_us/anexo/constituicao_ingles_3ed2010.pdf Accessed on: 24/03/2015.

COE. **The European social charter**. European Treaty Series, no. 163. Strasbourg. 1996. Available at: <https://rm.coe.int/CoERMPublicCommonSearchServices/DisplayDCTMContent?documentId=090000168007cde2> Accessed on: 24/03/2015

DSD. **Report of the ad hoc open-ended intergovernmental group of experts on energy and sustainable development**. 2nd session. New York. 2001. Available at: https://sustainabledevelopment.un.org/content/dsd/resources/res_docucsd_09_adhoc.shtml accessed on: 24/03/2015.

DRC. **The Consitution of the Democratic Republic of Congo**. 2005. Available at: <http://www.constitutionnet.org/files/DRC%20-%20Congo%20Constitution.pdf> Accessed on: 24/03/2015.

DOWNIE, Andrew. **Rio gives its favelas a pre-Olympics makeover**. *Time*. Rio de Janeiro.09/2011. Available at: <http://content.time.com/time/printout/0,8816,2091817,00.html> Accessed on 24/03/2015.

ESCR. **European federation of national organizations working with the homeless (FEANSTSA) v. France**: Complaint No. 39/2006 Report to the Committee of Ministers. Strasbourg. 2008. Available on: http://www.feantsa.org/spip.php?action=accéder_document&arg=1176&cle=714c44f7979024a6b61b74aab861c4ac7716a2f4&file=pdf%2Ffeantsa_v_france_coe_decision_on_merits-2.pdf Accessed on: 24/03/2015.

FRANCE. Article 5. **Law No 2000-108 of February 10, 2000**. (Loi n° 2000-108 du 10 février 2000 relative à la modernization et au développement du service

public de l'électricité). Available on:
<http://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000000750321> Accessed on 24/03/2015.

ICHR. **Interpretation of the American Declaration of the rights and duties of man within the framework of article 64 of the American Convention on Human Rights.** San José. 1989. Available on:
http://www.corteidh.or.cr/docs/opiniones/seriea_10_ing1.pdf Accessed on: 24/03/2015.

Meyer v. Moqhaka Local Municipality. **Case No.:4008/2003.** South Africa. 2004. Available at: <http://www.saflii.org/za/cases/ZAFSHC/2004/122.pdf> Accessed on: 24/03/2015.

MILLENNIUM DEVELOPMENT GOALS. **Millennium development goals and beyond 2015.** Available at: <http://www.un.org/millenniumgoals/bkqd.shtml> Accessed on: 24/03/2015.

NOVAIS, Andrea. **Stealing infrastructure access in Brazil.** The Brazil Business.04/2012. Available at: <http://thebrazilbusiness.com/article/stealing-infrastructure-access-in-brazil> Accessed on 24/03/2015.

OUA. **African Charter on Human and Peoples' Rights.** CAB/LEG/67/3 rev. 5, 21 I.L.M. 58. Nairobi. 1982. Available at:
http://www.achpr.org/files/instruments/achpr/banjul_charter.pdf Accessed on: 24/03/2015.

SMETS, Henri. **For an increased effectivity of the right to drinking water in France.** France. 2011. Available at:
<http://arabwatercouncil.org/administrator/Modules/CMS/1.pdf> Accessed on: 24/03/2015.

_____. The implementation of the right to water in French law. France, 2013. Available at:
http://www.google.com.br/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0CCQQFjAB&url=http%3A%2F%2Facademie-eau.org%2Fforce_document.php%3Ffichier%3Ddoc_214.pdf%26fichier_old%3DTHE_IMPLEMENTATION_OF.pdf&ei=XlwSVZrCL6y0sATEwYDgAQ&usq=AFQjCNHlxU8kHlRn3sCh1SeUJqDJet_W-Q&sig2=hVqciqSxdCqGHRYofg9W_Q&bvm=bv.89184060,d.cWc Accessed on: 24/03/2015.

South Africa. Electricity Act 41. South Africa. 1987. Available at:
http://www.cityenergy.org.za/uploads/resource_29.pdf Accessed on: 24/03/2015.

UN. **CESCR General Comment 4:** The right to adequate housing (Sixth session, 1991), U.N. Doc. E/1992/23, annex III at 114 (1991), reprinted in Compilation of General Comments and General Recommendations Adopted by Human Rights Treaty Bodies, U.N. Doc. HRI/GEN/1/Rev.6 at 18 (2003). Available at:
<http://www1.umn.edu/humanrts/gencomm/epcomm4.htm> Accessed on: 24/03/2015.

UN. **Convention on the elimination of all forms of discrimination against women.** General Assembly resolution 34/180 of 18 December 1979. Available at:

<http://www.ohchr.org/Documents/ProfessionalInterest/cedaw.pdf> Accessed on 24/03/2015.

UN. **International covenant on economic, social and cultural rights.** United Nations General Assembly resolution 2200A (XXI). 16 December 1966. Available at: <http://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx> Accessed on: 24/03/2015.

UNDP. **World Energy Assessment:** overview 2004 update. New York. 2004. Available at: <http://www.undp.org/content/dam/aplaws/publication/en/publications/environment-energy/www-ee-library/sustainable-energy/world-energy-assessment-overview-2004-update/World%20Energy%20Assessment%20Overview-2004%20Update.pdf> Accessed on: 24/03/2015.

_____. **World Energy Assessment:** energy and the challenge of sustainability. New York. 2000. Available at: <http://www.undp.org/content/dam/aplaws/publication/en/publications/environment-energy/www-ee-library/sustainable-energy/world-energy-assessment-energy-and-the-challenge-of-sustainability/World%20Energy%20Assessment-2000.pdf> Accessed on: 24/03/2015

UNDP/WHO. **Energy access situation in developing countries:** a review focusing on the least developed countries and Sub-Saharan Africa (Pager brief). 2009. Available at: http://www.who.int/indoorair/publications/Energy_Access_Report_Brief.pdf?ua=1 Accessed on 24/03/2015.

WEHAB. **A framework for action on energy.** Johannesburg. 2002. Available at: http://www.gdrc.org/sustdev/un-desd/wehab_energy.pdf Accessed on: 24/03/2015.