ELECTRICITY AS A MATERIAL CONDITION FOR THE ENJOYMENT OF HUMAN RIGHTS: AN UNENUMERATED FUNDAMENTAL RIGHT

Daniel Wunder Hachem¹

Pontificia Universidade Católica do Paraná (PUCPR)

Luzardo Faria²

Universidade de São Paulo (USP)

William Ivan Gallo Aponte³

Universidad Externado de Colombia (UEXTERNADO)

ABSTRACT

In contemporary civilization, electrical energy has become an element of essential importance for the development of society. Currently, access to this good is considered an inherent need for human subsistence and, for this reason, it must be understood as an integral component of the minimum necessary for a dignified existence. However, the main international treaties and contemporary constitutions – such as the Brazilian one – do not provide for access to electricity as a human or fundamental right. The purpose of this research is to demonstrate that electricity services are essential for the enjoyment of human rights, which converts access to them into an autonomous fundamental right as a condition for the exercise of other human rights. To defend this idea, the article examines the possibility

¹ Postdoc at Université Paris 1 Panthéon-Sorbonne. PhD and Master in Law from the Universidade Federal do Paraná (UFPR). Professor of Constitutional Law and Administrative Law at the Pontificia Universidade Católica do Paraná (PUCPR) and UFPR. Visiting professor at the École de Droit de la Sorbonne. Director of the Center for Research in Public Policies and Human Development at PUC-PR (NUPED). Attorney. ORCID: http://orcid.org/0000-0001-8519-8420 / Lattes Curriculum: http://lattes.cnpq.br/3961234292193598. / email: danielhachem@gmail.com

² PhD in Law from the Universidade de São Paulo (USP). Master's Degree in State Law from the Universidade Federal do Paraná (UFPR). Professor of the Specialization Course in Administrative Law at the Instituto de Direito Romeu Felipe Bacellar (IDRFB). Researcher at the Center for Constitutional Investigations (NINC) of the Graduate Program in Law at UFPR. ORCID: http://orcid.org/0000-0001-7330-2649 / Lattes Curriculum: http://lattes.cnpq.br/3797208015856838 / e-mail: farialuzardo@hotmail.com

³ PhD in Law from the Pontificia Universidade Católica do Paraná (PUC-PR). Master in Economic Law and Development from PUC-PR. Lawyer at Universidad Externado de Colombia (UEXTERNADO). Degree approved by the Universidade de Brasilia. CAPES Fellow – Brazil. He worked as a research professor at UEXTERNADO (2019-2021). Active researcher at the Research Center on Public Policies and Human Development (NUPED) at PUC-PR, at the research group on Environmental Law at UEXTERNADO. Assistant editor of Jornal Euro-Latino-Americano de Direito Administrativo. Former vice-president of the Rede Ibero-Americana da Juventude de Direito Administrativo (RIJDA). ORCID: http://orcid.org/0000-0001-7157-6291 / Lattes Curriculum: http://lattes.cnpq.br/9871153193940424 / e-mail: williamg.aponte@gmail.com

of framing access to electricity as an implicit fundamental human right, based on the analysis of international human rights treaties and the constitutional and infra-constitutional provisions of the Brazilian legal system.

Keywords: electrical energy; fundamental rights; human rights; public services; unenumerated rights.

A ENERGIA ELÉTRICA COMO CONDIÇÃO MATERIAL PARA O GOZO DOS DIREITOS HUMANOS: UM DIREITO FUNDAMENTAL IMPLÍCITO

RESUMO

Na civilização contemporânea, a energia elétrica tornou-se um elemento de importância essencial para o desenvolvimento da sociedade. Atualmente, o acesso a esse bem é considerado uma necessidade inerente à subsistência humana e, por essa razão, deve ser entendido como um componente integral do mínimo necessário para uma existência digna. Entretanto, os principais tratados internacionais e constituições contemporâneas — como é o caso da brasileira — não preveem o acesso à eletricidade como direito humano ou fundamental. O propósito desta pesquisa é demonstrar que os serviços de eletricidade são essenciais para o gozo dos direitos humanos, o que converte o acesso a eles em direito fundamental autônomo como condição para o exercício de outros direitos humanos. Para defender essa ideia, o artigo examina a possibilidade de enquadrar o acesso à eletricidade como direito humano fundamental implícito, com base na análise dos tratados internacionais de direitos humanos e das disposições constitucionais e infraconstitucionais do sistema jurídico brasileiro.

Palavras-chave: direitos fundamentais; direitos humanos; direitos implícitos; energia elétrica; serviços públicos.

INTRODUCTION

Access to electricity represents a fundamental assumption for the development of people's lives and for the sustainability of contemporary societies. It is limited to think of a service or activity that does not depend on electricity consumption; for this reason, access to electrical energy is an essential condition for respecting human dignity. Currently, having electricity goes beyond the provision of a public service, as its generation and possibility of access represent a requirement for the guarantee of human rights, whose recognition must be taken into account by the various legal instruments, whether national or international.

In this context, this work seeks to argue that the right of access to electricity is a human and fundamental right, even if it is not expressly provided for as such in international treaties or in the 1988 Brazilian Constitution. Therefore, this study was designed to demonstrate that electricity services are essential for the enjoyment of human rights, which makes access to them an autonomous fundamental right, as it is a condition for the exercise of other human rights.

In order to defend the previous justification, firstly, some considerations about electricity as a budget for sustainable national development are presented. In particular, the need to assign a fundamental role to access to electricity is analyzed in general, considering that its access capacity is still limited – particularly in Brazil, one of the countries that consumes the most energy in the world.

Second, access to electricity is studied as a material condition for the realization of human rights. In this regard, it is highlighted how electrical energy is a subject that has been the object of the most diverse legal approaches, whose reading also implies and invites analysis from the human rights perspective. Finally, before the conclusions, based on a dogmatic analysis, the existence of a right of access to electricity is verified as an implicit right: not only in the 1988 Brazilian Constitution, but also in international law, particularly in international human rights law.

1 ELECTRICITY AS A RESOURCE FOR SUSTAINABLE NATIONAL DEVELOPMENT

Human and animal energies have long ceased to be sufficient to guarantee the production, circulation, exploitation and distribution of goods and

services necessary for the development of society. The world is constantly changing according to technological innovations, needs and desires. Law, as a system of norms that govern social relations and that must consider all aspects related to life in society, has the task of legal regulation of the energy sector (MARTÍNEZ BULLÉ GOYRI, 1991).

Today, energy and environmental experts are working on increasingly powerful and sustainable sources. However, electricity still plays a fundamental role in the area, being one of the main sources of supply worldwide. However, access to it cannot yet be considered so democratic.

In Brazil, electricity consumption is one of the most relevant in the world. However, the installed capacity of electricity generation represents only 2.3%. The sectoral share in consumption is composed of (i) 32.1% in the industry; (ii) 10.8% in the residential; (iii) 11.2% in the energy sector; (iv) 31.2% in transportation; (v) 5.1% in agriculture and livestock; (vi) 4.7% in services; and (vii) 4.9% in non-energy use (BRASIL, 2021). It should be noted that industrial production and the transport of cargo and/ or passengers together represent about 63% of the country's energy consumption. In addition, according to data from the IEA (*International Energy Agency*), there was a 7.6% increase in energy demand by the transport sector, for the period from 1990 to 2017.

Focusing on the participation of the residential sector – that is, 10.8% of consumption, according to the indicators of Sustainable Development of the Brazilian Institute of Geography and Statistics (IBGE) – access to electricity addresses important critical issues in all sustainability dimensions, as it involves a wide range of economic and social impacts, including the ease of carrying out income-generating household activities as well as lightening the burden of household chores. To highlight an example, between 2016 and 2019 – the period of the last analysis carried out by the IBGE – it was identified that, until 2019, almost all households in the country (99.8%) had access to electricity, provided by the general network or by alternative sources. Specifically, in 72.2 million households (99.5%), electricity was supplied by the general grid and, in 71.4 million (9.2%), it was supplied on a full-time basis. These percentages remained high in all major regions, with a variation of only 1.1% between the North Region (98.8%) and the Southeast, South and Midwest Regions (99.9%) (IBGE, 2022).

Meeting the Sustainable Development Goals, Brazil plans to expand

⁴ The IEA is an international organization that acts as an energy policy advisor for its member and partner countries, with Brazil being one of the current partner nations. More information about the organization can be found at: https://www.iea.org/

infrastructure and modernize technology for provision and access to modern and sustainable energy services. For this reason, it can be said that electrical energy constitutes a budget for sustainable national development, under the terms established in the 1988 Federal Constitution. This expansion, in accordance with aspirations, must be reinforced by international cooperation to facilitate access to clean energy research and technologies, including renewable energy, energy efficiency and advanced and cleaner fossil fuel technologies (IBGE, 2022).

According to information from the United Nations (2011), in 2011 there were about 1.4 billion people in the world without access to modern electricity services. The number represents a total of approximately 20% of the world's population. In other words, for every five people on the planet, one did not have adequate access to energy. Since then, although progress has been made, it is indisputable that the number remains problematic, so that the United Nations (2015), when releasing these data, formalized a partnership between the United Nations Development Program (UNDP), the International Energy Agency (IEA) and the United Nations Industrial Development Organization (UNIDO), whose main objectives to be achieved by 2030 are: universal access to energy, a 40% reduction in consumption and the achievement of the 30% mark in renewable energy in the global mix of electrical resources.

As a starting point, it is important to highlight that electricity is no longer, as it was in other historical moments, an accessory or luxury good. Currently, many activities and human needs require it on an indispensable basis. Most of the time, this field includes basic issues, such as food refrigeration or medicines conservation, which characterizes access as a correlative right to human subsistence (PES; ROSA, 2012). For this reason, access must be understood as an integral component of the minimum necessary for a dignified existence.⁵

Thus, there is no doubt that, in contemporary civilization, energy – of any kind, but especially electricity – has become an element of essential importance for the development of society as a whole. Therefore, it is evident that the State – when it adopts a model of Social and Democratic State of Law⁶ – has the duty to provide its citizens with the amount of energy necessary to allow minimum conditions capable of providing an improvement in the population's quality of life (CALDERÓN MORALES, 2005).

⁵ On the right to the existential minimum, see: Hachem (2014) and Schier and Schier (2018).

⁶ On this model, see: Rodríguez-Arana Muñoz (2015) and Morais and Brum (2016).

Currently, one can feel a real emergency for the establishment of a human right of access to electricity. The emergency is reiterated by the need to develop public policies of International Human Rights Law, insofar as they aim at sustainable development, as well as the legal regulation of this issue, which can extend the energy supply to the most vulnerable social groups (TULLY, 2006). The application of the legal classification of "human right" to access to electricity must, however, be compatible with the provisions of the global sustainable development agenda. This means balancing economic development, sustainable use of natural resources, environmental protection and poverty eradication. As long as this right serves to satisfy individual human needs and increase the quality of life, it can also contribute to the rational and efficient use of natural resources, helping to prevent climate change (TULLY, 2012).

2 ACCESS TO ENERGY AS A MATERIAL CONDITION FOR THE ACHIEVEMENT OF HUMAN RIGHTS

According to Alfonso Nava Negrete (2005, p. 141), the "Energy Law" – was born out of the need for each country to protect its energy reserves from greed (domestic and foreign), to regulate the international export and import trade of energy and take advantage of these resources for the benefit of the local population, from production – which must be rational and sustainable – to distribution – which must be equitable.

Since then, electricity has been the subject of a wide range of legal approaches, the analysis of which is possible not only from the perspective of environmental law and the need for sustainable energy development, but also from the perspective of economic law and infrastructure, as well as the regulation of production and marketing. The conception adopted in this work is different. The reading that will be made on electricity is based, at first, on constitutional aspects. For this reason, the study specifically analyzes access to electricity, seeking to substantiate its position as a fundamental human right.

Currently, electricity is understood as a material precondition for the satisfaction of several other human rights – such as access to water, education, housing, information, etc.⁹. In this sense, the lack of electricity

⁷ On the new perspectives of the concept of sustainable development, see: Xavier (2017).

⁸ On the complex notion of efficiency in public administration, see: Hachem and Gabardo (2018).

⁹ See Mexico (2013).

directly affects the satisfaction of basic human needs – such as food (by impairing the functioning of refrigerators and other appliances necessary for food conservation), health (by making the operation of various medical devices unfeasible and affecting medicines preservation), education (by preventing the use of more advanced technological teaching methods), among many other examples (CASTRO SOTO, 2007). Electricity must be understood as a necessary prerequisite for the exploitation of economic activities in the sphere of civil society, which is why its absence generates social, cultural and digital exclusion (COSTA, 2009).

There is little disagreement in the specialized doctrine about the fact that the use of electricity is closely linked to a series of social aspects, such as the struggle to reduce social and regional inequalities and the sustainable development of civilization (GOLDEMBERG, 2000). Access to electricity is, therefore, understood as a necessary requirement for human development.

If the attempt to conceptualize development is a task that never generates unanimity¹⁰, there are highly respected thinkers who have studied the issue with some subtlety – such as Amartya Sen, who received the Nobel Prize in Economics in 1998 for her contribution to the issue of development in the Social State.¹¹ For Sen (2000), development focuses on removing conditions that deprive individuals of the enjoyment of their freedoms. In this sense, to consider citizens as free, they must have access to a minimally dignified share of economic, social, civil and political rights. It is a freedom-based perspective that "has generic resemblance to the common concern with 'quality of life', which also focuses on how people live (perhaps even on the options they have) and not just on the resources or income they have".

In fact, a person who is hungry and does not have adequate housing, health conditions or education is not free to shape his decisions and the development of his personality. As a logical consequence, the same applies to access to electricity, since this right is a condition for enjoying other essential rights. Therefore, this access manifests itself not only as an indispensable right for the development of society, but also, in a more rigorous analysis, for the development of each individual's fundamental freedoms.

Therefore, it is logical to state that "access to energy is linked to freedom, development, dignity, the realization of various fundamental rights, and it is the duty of the national state entity to promote the good of

¹⁰ In this sense: Hachem (2013, p. 133-168).

¹¹ On the subject, see: Wedy (2017).

all, including universal access to energy in the country" (CAVALCANTE, 2013, p. 66).

From this perspective, the human right of access to energy has an indirect effect on the right to development. Thus, "it is not just the consumption of energy that is sought, but the right of access to it, in order to promote the right to development as one of the human rights" (COSTA, 2009, p. 110).

Recalling that, in the paradigm of the Social Rule of Law, the State (through the Public Administration)¹² is the entity responsible for promoting development and reducing inequalities (BITTENCOURT NETO, 2017), the formulation of public policies aimed at democratizing access to electricity¹³ must be required. As a result, an increase in production and greater equity in energy distribution should also be sought. This promotes getting closer to the currently marginalized citizens, who do not have the necessary conditions to make use of electricity. It is only through this system of distributive justice that we can begin to think about equality of social opportunity.

In this regard lies the importance for governments, especially in Latin America, through serious institutions, to plan and implement public policies for providing the population with all the energy necessary for social and economic development and, thus, fulfilling the primary purpose of public administration, which is the common good, especially for the most vulnerable social groups (CALDERÓN MORALES, 2005).

The conditional relationship between access to electricity and the fulfillment of various human rights is easily observable in the positions adopted at the international level by the UN. One of them, already mentioned, is the cooperation between UNDP, IEA and UNIDO with the main objective of universalizing the right by the year 2030. Another important issue is the Millennium Development Goals, which basically consist of eight adopted goals in 2009 by the organization's 191 member states, namely: (i) eradicate extreme poverty and hunger; (ii) achieve universal primary education; (iii) promote gender equality and empower women; (iv) reduce child mortality; (v) improve maternal health; (vi) combat HIV/AIDS, malaria and other diseases; (vii) ensure environmental sustainability; (viii) develop a global partnership for development (MARTINI; WALDMAN, 2018). If fulfilled, they should improve the destiny of humanity in this century.

¹² In this sense, from a social perspective of Administrative Law: Balbín (2014), Rodríguez-Arana Muñoz (2015) and Bitencourt Neto (2017).

¹³ There is a direct relationship between the implementation of state public policies and the promotion of fundamental social rights. See: Carvalho (2019) and Salgado (2015).

Although the provision of essential public services and the improvement of energy infrastructure were not explicitly foreseen in the list, it is important to point out that allowing access to affordable energy for the most needy citizens, in a safe and socially advantageous way, has become one of the main prerequisites to achieve the eight goals (BHATTACHARYYA, 2006).

Stephen Tully (2006), one of the world's leading experts on the human right to electricity, similarly asserts that such a right advances all of the millennium development goals, establishing the following relationships:

- 1. Access to electricity helps to reduce poverty, as it increases industrial productivity, generates more employment opportunities and promotes the development of micro and small businesses, in addition to helping with refrigeration for food and medicines conservation;
- 2. Such access also *facilitates the realization of universal basic education*, since it eliminates the need for natural energy sources such as wood to be sought by people at an early age (especially residents of rural areas), a practice that ends up driving them away from schools more quickly. In addition, in a more direct effect, access to electricity provides more refined means of information and communication technology (computers, projectors, internet, etc.), which facilitates learning for everyone. So there is still the benefit of allowing children to study for longer periods, especially at night, when lighting is essential;
- 3. Its democratization helps to *promote gender equality and the empowerment of women*, simplifying various household chores (historically associated with women by a sexist culture), which can allow them greater freedom and autonomy in determining their attributions. This relationship is also provided for in the International Convention on the Elimination of All Forms of Discrimination Against Women, art. 14-2, h (ASAMBELA GENERAL DE LAS NACIONES UNIDAS, 1979);
- 4. It also helps to reduce infant mortality, as it is a less harmful source for respiratory health than those used in the past (charcoal or wood burning, for example). In addition, by helping to boil water, it is essential to fight diseases caused by the use of untreated water. Finally, the current supply system is much safer (i.e., less flammable) than many other means, promoting the reduction of burns, fires and accidents of this nature;
- 5. It can be understood as a prerequisite for *improving maternal health*, given that all medical equipment and infrastructure (in addition to surgical procedures) require electrical energy and lighting to be successful.

However, more attention should be paid to families living in rural areas, since, as we have seen, there are still homes that do not have adequate supplies. This could, of course, have a negative impact on maternal health, especially in emergency situations;

- 6. It supports the fight against HIV/AIDS, malaria and other diseases in a number of fundamental ways: it improves the infrastructure of medical clinics and hospitals, helps with refrigeration for the conservation and development of vaccines and medicines, facilitates the boiling of water for sterilization of equipment, provides lighting etc.;
- 7. It is able to *guarantee environmental sustainability*, as it is a much more sustainable means of energy than, for example, wood and coal combustion. It also reduces the emission of polluting gases into the atmosphere, including carbon dioxide. Production by means considered clean such as wind energy does not produce collateral damage to the environment (with the destruction of forests and ecosystems), which is also not the case in the examples discussed above;
- 8. Finally, it is a factor that contributes to *the establishment of global cooperation for development*, as it allows, through communication, contact between the most diverse parts of the planet. Furthermore, there is no way to talk about sustainable global development without seeking to democratize access to electricity on a collective basis.

Making this access effective still encounters significant difficulties, which can be divided into several large groups, under the following headings: (i) territorial/physical difficulties, referring to regions whose geographic nature can impose obstacles to making the right of access effective, as in the cases of *cerrado*¹⁴, large forests, rivers, etc.; (ii) technical-scientific difficulties, related to the precariousness of certain environments, which ends up distancing technological advances from potential users, preventing access to the most modern forms of production and distribution¹⁵; (iii) economic/financial difficulties, existing due to the financial difficulties of each country or region, after all, the implementation of the public supply service obviously requires resources that, as a logical consequence, end up being charged from users and, in this sense, financial problems can prevent access for both individual users, for not being able to pay their bills, as well as preventing the development of services as a whole, when the government itself does not have the necessary resources

¹⁴ Cerrado is a savanna-type biome that exists in Brazil.

¹⁵ See Soethe and Blanchet (2020).

to implement an adequate distribution system; (iv) political difficulties, which arise in the political sphere when public representatives, whether from the Executive or the Legislative Power, prevent the best provision of electric energy supply services, seeking some type of private interest (to favor the concessionary company or to discredit the region's politicians, for example); (v) environmental difficulties, despite recent advances in the field of sustainable and renewable energies, ¹⁶ a large part of the electricity produced on the planet still comes from thermal plants, incinerators, hydroelectric plants, which, during these processes, cause great damage to the environment, to give an example (COSTA, 2009).

Having established the importance of access to electricity for the realization of the entire system of human rights, positive state action is essential to modify the system and the way to overcome these difficulties, so that the much-desired universality of access can be achieved.

3 THE RIGHT OF ACCESS TO ELECTRICITY AS AN IMPLICIT RIGHT IN THE BRAZILIAN CONSTITUTION AND IN INTERNATIONAL LAW

Access to electricity is not expressly provided for in the Brazilian Constitution of 1988 as a fundamental right. This is no reason to remove it from this essential framework, since, by virtue of its intimate connection with the fundamental rights formally included in the list, it enjoys material fundamentality intrinsic to its own function.¹⁷

It is worth remembering that, in the Brazilian constitutional order, there is a material opening clause of the fundamental rights catalog, inserted in art. 5, §2, which allows the recognition of a block of constitutionality¹⁸: According to Sarlet (2010), the rights and guarantees expressed in the Constitution do not exclude other derivatives of the regime and principles adopted by it, including international treaties to which Brazil is a party. The attribution of the status of (materially) fundamental right to legal positions that are not formally included in the text of "Title II – Fundamental Rights and Guarantees" of the Constitution (arts. 5 to 17), nor explicit in other parts of the constitutional text, requires that the positions have content

¹⁶ See: Boff and Boff (2017), Goldfarb (2020) and Krell and Souza (2020).

¹⁷ It is noteworthy that, although the vast majority of scholars on the subject are of a different opinion, there are those who believe that it is impossible to treat access to electricity as a right. As an example of this minority view: Rochlin (2002, p. 31-36).

¹⁸ In this sense: Ferreira and Limberger (2018, p. 317-330).

and importance that bring them closer to formally fundamental rights and that derive directly from the principles listed in Art. 1 to 4 of Title I ("Fundamental Principles").¹⁹

The existence of *materially* fundamental rights is, therefore, admitted due to the proximity of their content to the essence of the Constitution and to the other fundamental rights provided for in the text formalized in Title II of the Major Law²⁰.

Therefore, there are no major difficulties in recognizing the right of access to electricity as a fundamental right, given its evident relationship with the principles adopted by the 1988 Brazilian Constitution and by the international human rights treaties signed by Brazil²¹, as will be explained below. Electricity is an essential asset for building a freer, fairer and more solidary society, for guaranteeing national development, eradicating poverty, reducing inequalities and promoting the common good – which are the fundamental objectives of the Brazilian Republic, as described in art. 3, sections I to IV of the Constitution.

For these reasons, the State is immersed in the task of providing electricity services, allowing all citizens to have access to them. In Brazil, according to the Constitution, the Federation is responsible for providing these services (art. 21, XII, b, CF). However, the constitutional system admits the delegation of the execution of the service under a concession or permission regime, which is exactly what happens in practice. The Federation does not directly provide the electricity supply service. This function has long been delegated to legal entities governed by private law in each State of the Federation.

In order to control the provision of this service by concessionaires, ANEEL (National Electrical Energy Agency) was created in 1996²² (Law 9427/96) as a regulatory agency linked to the Ministry of Mines and Energy²³. Its main attributions are the regulation and supervision of the production, transmission and commercialization of electricity in accordance with the policies and guidelines of the national government. In 2000, the

¹⁹ This is the criterion proposed by Sarlet (2010, p. 92-93).

²⁰ On the recognition of materially fundamental rights, see in the Portuguese legal literature the lessons of: Andrade (2004, p. 75-97). In Brazilian law, the subject is extensively explored by: Sarlet (2006, p. 98-109) and Pinto and Netto (2016; 2021).

²¹ On the hierarchy of human rights treaties in Brazil, see: Gussoli (2019).

²² National Electrical Energy Agency.

²³ Ministry of Mines and Energy.

Ministry of Mines and Energy created the CNPE (National Energy Policy Council) (Decree 3,520/00)²⁴, with the aim of providing guidelines and suggestions to guide the formulation of public policies by the Federal Public Administration, considering the promotion of rational use and supply of energy resources to the most diverse regions of the country. ANEEL and CNPE are responsible for issuing administrative acts of a normative, regulatory or directive nature, which more specifically delimit the way in which the Brazilian legal system regulates the subject.

Law No. 9,478/97 provides for the national energy policy. According to the doctrine, the main challenge that led to the formulation of the law corresponded to the provision of the services necessary to achieve satisfactory levels of development using reasonable resources compatible with the financial possibilities of the users, in an environmentally sustainable way (GOLDEMBERG *et al.*, 1998).

Finally, we highlight the performance of the Brazilian Public Administration in the formulation of (at least) two major public policies aimed at increasing access to electricity in the country. In 2003, Decree No. 4,873 instituted the National Program for Universal Access and Use of Electric Energy²⁵, better known as Luz Para Todos (Light for all), with the aim of providing electricity to a part of the population in rural areas that did not yet have the service. Studies claim that this public policy was responsible for the considerable improvement in the quality of life in the countryside, making people who lived in cities, in inadequate conditions, return to their rural areas of origin and that others, especially young people, did not need to leave the countryside in search of social integration (CAMARGO et al., 2008). In 2002, the social tariff for electricity was created, through Federal Law No. 10,438/2002. It is a benefit created by the Federal Government to grant economic subsidies to users with low consumption or with low consumption and low income. Thus, those who consume less than 30 kWh per month at home receive a 65% discount on their bill; if consumption remains between 30 and 100 kWh per month, the discount is 40%; between 100 and 220 kWh, 10%. To be eligible for the social tariff, the family must have a monthly per capita income of less than or equal to half a minimum wage. If there is a family member with an illness or disability whose treatment requires the use of electricity, the requirement expands to

²⁴ National Energy Policy Council.

²⁵ National Program for Universal Access to and Use of Electric Energy.

three minimum wages. These are two commendable political initiatives to promote the democratization of access to electricity, facing their two main obstacles: geographic difficulty and economic difficulty.²⁶

In international law, access to electricity was also not expressly provided for as a human right in the main existing treaties. However, its direct influence can be felt in the pursuit of the objectives determined by these treaties.

The Universal Declaration of Human Rights, promulgated in 1948, was the first major international human rights document adopted by the UN. Although it is not a treaty that legally obliges States to comply with its provisions, it is very important for its content and meaning, as it establishes the entire basis of international human rights law. In art. 22 (OR-GANIZACIÓN DE LAS NACIONES UNIDAS, 1948), which deals with economic, cultural and social rights, the Declaration states that:

Everyone, as a member of society, has the right to social security and is entitled to realization, through national effort and international co-operation and in accordance with the organization and resources of each State, of the economic, social and cultural rights indispensable for his dignity and the free development of his personality (ORGANIZACIÓN DE LAS NACIONES UNIDAS, 1948).

Art. 25.1 states that:

Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services (ORGANIZACIÓN DE LAS UNITED NATIONS, 1948).

The International Covenant on Economic, Social and Cultural Rights (ICESCR) determines in its preamble that:

[...] the ideal of free human beings enjoying freedom from fear and want can only be achieved if conditions are created whereby everyone may enjoy his economic, social and cultural rights, as well as his civil and political rights (ORGANIZACIÓN DE LAS NACIONES UNIDAS, 1966).

In Part II, Art. 2.1, the Covenant provides that:

Each State Party to the present Covenant undertakes to take steps, individually and through international assistance and co-operation, especially economic and technical, to the maximum of its available resources, with a view to achieving progressively the full realization of the rights recognized in the present Covenant by all appropriate means, including particularly the adoption of legislative measures (ORGANIZACIÓN DE LAS NACIONES UNIDAS, 1966).

²⁶ For the problem of economic difficulties, some authors propose that the rights to the benefit should be free. On this issue: ROSALES (2019).

By themselves, these excerpts already demonstrate the role that the ICESCR wants to impose on the signatory States: they must act in a positive and cooperative way with the ultimate objective of providing an improvement in the quality of life for all citizens.

Further on, the need for access to electricity for the realization of the rights provided for in the ICESCR is even more evident. See, for example, how Art. 11.1 deals with the human right to an adequate standard of living: "The States Parties to the present Covenant recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions. [...]" (ORGANIZACIÓN DE LAS NACIONES UNIDAS, 1966). In 1991, the UN Committee on Economic, Social and Cultural Rights, the body responsible for monitoring the implementation of the ICESCR, issued some general comments on the document. On the meaning of "adequate housing", General Comment No. 4 determines that it must have:

[...] adequate privacy, adequate space, adequate security, adequate *lighting* and ventilation, adequate basic infrastructure and adequate location with regard to work and basic facilities – all at a reasonable cost (ORGANIZACIÓN DE LAS UNITED NATIONS, 1966).

It also states that it:

[...] must contain certain facilities essential for *health*, security, comfort and nutrition. All beneficiaries of the right to adequate housing should have sustainable access to natural and common resources, safe drinking water, energy for cooking, heating and lighting, sanitation and washing facilities, means of food storage, refuse disposal, site drainage and emergency services (ORGANIZATION OF THE UNITED NATIONS, 1966).

The American Convention on Human Rights (Pact of San José, Costa Rica) follows the same line. In its Chapter III, which deals with economic, cultural and social rights, art. 26 provides for the so-called "progressive development". On that occasion, it states that:

The States Parties undertake to adopt measures, both internally and through international cooperation, especially those of an economic and technical nature, with a view to achieving progressively, by legislation or other appropriate means, the full realization of the rights implicit in the economic, social, educational, scientific, and cultural standards [...] (ORGANIZACIÓN DE LOS ESTADOS AMERICANOS, 1969).

Another example that can be mentioned is the Convention on the Elimination of All Forms of Discrimination against Women. Already mentioned in the previous topic, this document expressly provides for the importance of access to electricity for human development. Art. 14.2 establishes that:

States Parties shall take all appropriate measures to eliminate discrimination against women in rural areas in order to ensure, on a basis of equality of men and women, that they participate in and benefit from rural development and, in particular, shall ensure to such women the right [...] (h) To enjoy adequate living conditions, particularly in relation to housing, sanitation, electricity and water supply, transport and communications. (i) to enjoy adequate housing, health services, electricity and water supply, transport and communications (ORGANIZACIÓN DE LOS ESTADOS AMERICANOS, 1969).

Finally, it is worth mentioning the European Pillar of Social Rights (CASADO, 2019), approved by the European Commission Recommendation (EU) 2017/761 of 26 April 2017 and then by the Interinstitutional Proclamation on the European Pillar of Social Rights 2017/C 428 /09 of 13 December 2017, a joint act of the European Parliament, the Council of the European Union and the European Commission. While the declaration is not an international treaty and therefore does not produce binding legal effects, it is a document that proclaims principles that serve "is to serve as a guide towards efficient employment and social outcomes when responding to current and future challenges which are directly aimed at fulfilling people's essential needs, and towards ensuring better enactment and implementation of social rights" (UNIÓN EUROPEA, 2017). The Declaration provides in art. 20 ("Access to Essential Services") that "Everyone has the right to access essential services of good quality, including water, sanitation, energy, transport, financial services and digital communications. Support for access to such services shall be available for those in need" (UNIÓN EUROPEA, 2017).

Thus, it is possible to affirm that, although access to electricity is not expressly provided for in the Brazilian legal system or in international treaties, it is perfectly possible to defend the existence of this human right, since it is a material precondition for the implementation of most of human and fundamental rights.

CONCLUSION

As Agustín Gordillo (GORDILLO, 2005, p. 107) pointed out, "if the hot air of each written word could be transformed into energy, the world

would already have excess energy and the crisis would be one of overproduction, not insufficiency". The Argentine professor's sentence serves as a warning. Currently, perhaps a lot is said about electrical energy – mainly in the field of law – without any importance to the practical functionality of what is said. Unfortunately, words alone do not translate into energy. The lack of access for the most needy citizens and inhabitants of the most distant locations from large urban centers is not, therefore, a problem that will be solved simply by academic and doctrinal research.

Aware of this fact, the present document aims to demonstrate, above all, the relevance of the right of access to electricity to the international human rights system. In doing so, it sought to underscore an indisputable premise: all citizens today need various forms of electrical energy to live their lives with dignity. This convenience, however, is not enjoyed by a large part of the world's population.

Although the right is not expressly recognized in the Brazilian legal system and in international law, it must be understood as a fundamental and intrinsic value of these systems. For this reason, the State must act positively to allow a broader democratization of the human right under analysis. It is essential that it manages to promote public policies that directly target this universal access — which is the objective of both the Brazilian constitutional order and the international human rights system with regard to Energy Law. This is definitely not an easy task. What we hope to have achieved with this work is to demonstrate the importance of realizing this right for the enjoyment of the entire system of fundamental rights.

REFERENCES

ANDRADE, J. C. V. Os direitos fundamentais na Constituição Portuguesa de 1976. 3. ed. Coimbra: Almedina, 2004.

BALBÍN, C. F. Un Derecho Administrativo para la inclusión social. *A&C* – *Revista de Direito Administrativo & Constitucional*, Belo Horizonte, ano 14, n. 58, p. 33-59, out./dez. 2014.

BHATTACHARYYA, S. C. Renewable energies and the poor: niche or nexus? *Energy Policy*, Amsterdam, v. 34, n. 7, p. 659-663, abr. 2006.

BITTENCOURT NETO, E. Estado social e administração pública de garantia. *Revista de Direito Econômico e Socioambiental*, Curitiba, v. 8, n. 1, p. 289-302, jan./abr. 2017.

BITENCOURT NETO, E. Transformações do Estado e a Administração Pública no século XXI. *Revista de Investigações Constitucionais*, Curitiba, v. 4, n. 1, p. 207-225, jan./abr. 2017.

BOFF, S. O; BOFF, V. A. Inovação tecnológica em energias renováveis no Brasil como imperativo da solidariedade intergeracional. *Revista de Direito Econômico e Socioambiental*, Curitiba, v. 8, n. 2, p. 282-302, maio/ago. 2017.

BRASIL. Empresa de Pesquisa Energética. *Balanço Energético Nacional 2021*: ano base 2020. Rio de Janeiro: EPE, 2021. Available from: https://www.epe.gov.br/sites-pt/publicacoes-dados-abertos/publicacoes/PublicacoesArquivos/publicacao-601/topico-588/Relat%C3%B3rio%20S%-C3%ADntese%20BEN%202021-ab%202020_v2.pdf. Access on: 17 jun. 2021.

CALDERÓN MORALES, H. H. Los energéticos en Guatemala. *In:* FERNÁNDEZ RUIZ, J (Coord). *Derecho Administrativo:* memoria del Congreso Internacional de Culturas y Sistemas Jurídicos Comparados. Ciudad de México: UNAM, 2005.

CAMARGO, E.; RIBEIRO, F. S.; GUERRA, S. M. G. O Programa Luz para Todos: metas e resultados. *Espaço Energia*, Curitiba, n. 9, p. 21-24, out. 2008.

CAVALCANTE, H. P. M. O acesso à energia elétrica no Brasil sob a ótica do desenvolvimento como liberdade. *Revista de Direito Econômico e Socioambiental*, Curitiba, v. 4, n. 2, p. 58-86, jul./dez. 2013.

CARVALHO, O. F. As políticas públicas como concretização dos direitos sociais. *Revista de Investigações Constitucionais*, Curitiba, v. 6, n. 3, p. 773-794, set./dez. 2019.

CASADO CASADO, L. El nuevo Pilar Europeo de Derechos Sociales: ¿hacia un fortalecimiento real de la dimensión social de la Unión Europea? *Revista de Investigações Constitucionais*, Curitiba, v. 6, n. 2, p. 375-404, maio/ago. 2019.

CASTRO SOTO, G. Agua y energía: por el reconocimiento del agua y de la luz como derechos humanos. *Ecoportal*, 17 jan. 2007. Available from: http://www.ecoportal.net/Temas-Especiales/Derechos-Humanos/

AGUA_Y_ENERGIA_Por_el_Reconocimiento_del_Agua_y_de_la_ Luz como Derechos Humanos. Access on: Mar. 29, 2022.

COSTA, M. D. A. *O direito de acesso à energia*: meio e pré-condição para o exercício do direito ao desenvolvimento e dos direitos humanos. Tese (Doutorado em Energia) — Programa de Pós-Graduação em Energia, Universidade de São Paulo, São Paulo, 2009.

CRISTÓVAM, J. S. S. Sobre a noção de bem comum no pensamento político ocidental: entre becos e encruzilhadas da dimensão ancestral do moderno conceito de interesse público. *Revista de Investigações Constitucionais*, Curitiba, v. 6, n. 1, p. 107-134, jan./abr. 2019.

FERREIRA, R. F.; LIMBERGER, T. Um diálogo sobre a autonomia da constituição e os direitos humanos: aproximações hermenêuticas a noção de bloco de constitucionalidade. *Revista de Investigações Constitucionais*, Curitiba, v. 5, n. 1, p. 317-330, jan./abr. 2018.

GABARDO, E. O princípio da supremacia do interesse público sobre o interesse privado como fundamento do Direito Administrativo Social. *Revista de Investigações Constitucionais*, Curitiba, v. 4, n. 2, p. 95-130, maio/ago. 2017.

GOLDEMBERG, J. *Informe Mundial de Energía*: la energía y el reto de la sustentabilidad. PNUD, 2000.

GOLDEMBERG, J. et al. Energia para o desenvolvimento. São Paulo: T. A. Queiroz, 1998.

GOLDFARB, M. A. Energías renovables y generación distribuida en Argentina: aspectos regulatorios fomento e incentivos. *Revista de Direito Econômico e Socioambiental*, Curitiba, v. 11, n. 1, p. 39-58, jan./abr. 2020.

GORDILLO, A. Si las palabras fueran energía eólica... *In:* FERNÁNDEZ RUIZ, J. (coord). *Derecho administrativo. Memoria del Congreso Internacional de Culturas y Sistemas Jurídicos Comparados*. Ciudad de México: UNAM, 2005.

GUSSOLI, F. K. Hierarquia supraconstitucional relativa dos tratados internacionais de direitos humanos. *Revista de Investigações Constitucionais*, Curitiba, v. 6, n. 3, p. 703-747, set./dez. 2019.

HACHEM, D. W. A noção constitucional de desenvolvimento para além do viés econômico: reflexos sobre algumas tendências do Direito Público

brasileiro. A&C – Revista de Direito Administrativo & Constitucional, Belo Horizonte, ano 13, n. 53, p. 133-168, jul./set. 2013.

HACHEM, D. W. Mínimo existencial y derechos económicos y sociales: distinciones y puntos de contacto a la luz de la doctrina y jurisprudencia brasileñas. *Revista Eurolatinoamericana de Derecho Administrativo*, Santa Fe, v. 1, n. 1, p. 93-138, jan./jun. 2014.

HACHEM, D. W.; GABARDO, E. El principio constitucional de eficiencia administrativa: contenido normativo y consecuencias jurídicas de su violación. *Cuestiones Constitucionales: Revista Mexicana de Derecho Constitucional*, Ciudad de México, n. 39, p. 131-167, jul./dez. 2018.

IBGE – INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATISTICA. Objetivos de Desenvolvimento Sustentável. Objetivo 7. Energia Limpa e acessível. *Objetivos de Desenvolvimento Sustentável*, 2022. Available from: https://odsbrasil.gov.br/objetivo/objetivo?n=7. Access on: Mar. 29, 2022.

KRELL, A. J.; SOUZA, C. B. C. A sustentabilidade da matriz energética brasileira: o marco regulatório das energias renováveis e o princípio do desenvolvimento sustentável. *Revista de Direito Econômico e Socioambiental*, Curitiba, v. 11, n. 2, p. 157-188, maio/ago. 2020.

MARTÍNEZ BULLÉ GOYRI, V. Aspectos constitucionales de la energía en México. *In:* FERNANDÉZ, J. L. S (Dir.). *Cuadernos del Instituto de Investigaciones Jurídicas. Régimen jurídico de la energía en México*. Ciudad de México: UNAM, 1991.

MARTINI, S. R.; WALDMAN, R. L. Os objetivos do desenvolvimento sustentável analisados à luz da metateoria do direito fraterno e a concretização dos direitos humanos. *Revista de Direito Econômico e Socioambiental*, Curitiba, v. 9, n. 2, p. 198-219, maio/ago. 2018.

MÉXICO. Senado de la República. Comunicación Social. "Elevar a rango constitucional derecho humano a la energía eléctrica: diputados de Movimiento Ciudadano". 03.07.2013. Available from: http://comunicacion.senado.gob.mx/index.php/sesion-permanente/boletines/7944-boletin-2016-elevar-a-rango-constitucional-derecho-humano-a-la-energia-electrica-diputados-de-movimiento-ciudadano.html. Access on: Mar. 29, 2022.

MORAIS, J. L. B; BRUM, G V. Estado Social, legitimidade democrática e o controle de políticas públicas pelo Supremo Tribunal Federal. A&C-Revista de Direito Administrativo & Constitucional, Belo Horizonte, v. 16, n. 63, p. 107-136, jan./mar. 2016.

NAVA NEGRETE, A. Derecho de los energéticos. *In:* FERNÁNDEZ RUIZ, J (coord). *Derecho administrativo. Memoria del Congreso Internacional de Culturas y Sistemas Jurídicos Comparados*. Ciudad de México: UNAM, 2005.

ORGANIZAÇÃO DAS NAÇÕES UNIDAS. Programa das Nações Unidas para o Desenvolvimento. "*ONU quer universalizar energia elétrica até 2030*". 30 jun. 2011. Available from: http://www.pnud.org.br/Noticia. aspx?id=2439. Access on: Nov. 4, 2019.

ORGANIZACIÓN DE LAS NACIONES UNIDAS. *Declaración Universal de los Derechos Humanos*, 10 dez. 1948. Available from: https://www.un.org/es/about-us/universal-declaration-of-human-rights. Access on: Nov. 4, 2019.

ORGANIZACIÓN DE LOS ESTADOS AMERICANOS. *Convención Americana sobre Derechos Humanos*, 22 nov. 1969. Available from: https://www.oas.org/dil/esp/tratados_b-32_convencion_americana_sobre_derechos humanos.htm. Access on: Nov. 4, 2019.

PES, J. H. F; ROSA, T. H. Análise jurisprudencial do direito de acesso à energia elétrica. *In:* ALVIM, J. L. R. *et. al.* (org.). *Direitos sociais e políticas públicas*. Tomo I. Florianópolis: FUNJAB, 2012.

PINTO E NETTO, L. C. A abertura do sistema de direitos fundamentais do Estado Constitucional. Curitiba: Íthala, 2016.

PINTO E NETTO, L. Criteria to scrutinize new rights: protecting rights against artificial proliferation. *Revista de Investigações Constitucionais*, Curitiba, v. 8, n. 1, p. 11-75, jan./abr. 2021.

ROCHLIN, C. B. Is electricity a right? *The Electricity Journal*, New York, v. 15, n. 2, p. 31-36, mar. 2002.

RODRÍGUEZ-ARANA MUÑOZ, J. El Derecho Administrativo ante la crisis (el Derecho Administrativo Social. *Revista Eurolatinoamericana de Derecho Administrativo*, Santa Fe, v. 2, n. 2, p. 7-30, jul./dez. 2015.

- RODRÍGUEZ-ARANA MUÑOZ, J. La cláusula del Estado Social de Derecho y los derechos fundamentales sociales. *Revista Eurolatinoamericana de Derecho Administrativo*, Santa Fe, v. 2, n. 1, p. 155-183, jan./jun. 2015.
- ROSALES, C. M. La gratuidad de los derechos prestacionales como derechos humanos: una propuesta para su ponderación y otorgamiento. *Revista de Investigações Constitucionais*, Curitiba, v. 6, n. 2, p. 349-373, maio/dez. 2019.
- SALGADO, E. D. Políticas públicas, inclusão social e desenvolvimento democrático. *Revista Eurolatinoamericana de Derecho Administrativo*, Santa Fe, v. 2, n. 1, p. 89-99, jan./jun. 2015.
- SARLET, I. W. *A eficácia dos direitos fundamentais:* uma teoria geral dos direitos fundamentais na perspectiva constitucional. 10. ed. Porto Alegre: Livraria do Advogado, 2010.
- SCHIER, P. R; SCHIER, A. C. R. Direitos sociais, reserva do possível e o mínimo existencial: a aporia do meio adequado de satisfação. A&C Revista de Direito Administrativo & Constitucional, Belo Horizonte, v. 18, n. 74, p. 67-96, out./ dez. 2018.
- SEN, A. *Desenvolvimento como liberdade*. São Paulo: Companhia das Letras, 2000.
- SOETHE, G. C; BLANCHET, L. A. Geração distribuída e desenvolvimento sustentável. *A&C Revista de Direito Administrativo & Constitucional*, Belo Horizonte, v. 20, n. 79, p. 233-257, jan./mar. 2020.
- TULLY, S. R. Access to electricity as a human right. *Netherlands Quarterly of Human Rights*, Utrecht, v. 14, n. 4, p. 557-588, out./dez. 2006.
- TULLY, S. R. The human right to access clean energy. *Journal of Engineering for Sustainable Community Development*, Baghdad, v. 1, n. 2, p. 38-48, 2012.
- WEDY, G. J. T. Desenvolvimento (sustentável) e a ideia de Justiça em Amartya Sen. *Revista de Direito Econômico e Socioambiental*, Curitiba, v. 8, n. 3, p. 343-376, set./dez. 2017.
- XAVIER, L. N. Reinterpretação conceitual do desenvolvimento sustentável em face do planejamento urbano e da economia circular. *Revista de Direito Econômico e Socioambiental*, Curitiba, v. 8, n. 1, p. 233-266, jan./abr. 2017.

Article received on: 05/31/2020. Article accepted on: 02/11/2022.

How to cite this article (ABNT):

HACHEM, D. W.; FARIA, L.; GALLO APONTE, W. I. Electricity as a material condition for the enjoyment of human rights: an unenumerated fundamental right. *Veredas do Direito*, Belo Horizonte, v. 19, n. 43, p. 165-187, jan./apr. 2022. Available from: http://www.domhelder.edu.br/revista/index.php/veredas/article/view/1866. Access: Month. day, year.