

THE APPROPRIATE LEGAL QUALIFICATION FOR THE RIGHT TO CLEAN ELECTRICITY WITHIN THE CONTEXT OF CLIMATE CHANGE

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ABSTRACT

Contemporarily, the right of access to electricity has become very topical with many scholars having diverse views as to the nature and scope of the right. Due to the effects of climate change, the source of electricity generation is currently of prime importance. Clean electricity has topped the pyramid in terms of importance as opposed to fossil fuels. This is further explained looking at the central role clean electricity plays in our collective efforts of attaining the sustainable development goals, especially Goal 7 which makes access to clean and affordable energy one of our collective priorities. However, scholars have often disagreed on the appropriate legal regime to qualify the right of access to clean electricity. Starting with the right to clean electricity as a contractual right, it is argued that a contractual right is a right that is dependent on a specific relationship between human beings. The most important examples are rights you have as part of a community, especially as a citizen. However, this right lack universality since it is owed only to members of a specific community depending on their level of development. Therefore, foreigners who are not members of that society will not be able to benefit from the right. From a human rights perspective, access to clean electricity is viewed as one of the basic rights that are given to every human being for the sole reason of belonging to the homo sapiens family. However, there are some difficulties in contextualizing this right as a human right. The first problem stems on the fact that, if the right to clean electricity is made a human right, states will be forced to do everything possible to make electricity available to their citizens and where they are unable to use clean sources, they may rely on environmentally unfriendly sources like fossil fuels. In conclusion, it was realized that, access to clean electricity perfectly fits as a derived right. This means it is a right dependent on other

rights for its survival. For example, it is dependent on the right to a Healthy Environment and the right to Development. Therefore, in my opinion, the right of access to clean electricity is best qualified as a derived right.

Keywords: Clean Electricity, Climate Change, Right, Legal Qualification, Clean Energy.

INTRODUCTION

The International Energy Agency (IEA) in its 2021 *World Energy Outlook*ⁱ notes that, electricity is taking on an ever-more central role in the lives of consumers and, for an increasing number of households, it promises to become the energy source on which they rely for all their everyday needs such as mobility, cooking, lighting, heating and cooling. The reliability and affordability of electricity is set to become even more critical to all aspects of people's lives and well-being. Electricity's share of the world's final consumption of energy has risen steadily over recent decades, and now stands at 20% as of 2021ⁱⁱ. Its rise accelerates in future years as the pace of transitions picks up. Due to climate change related concerns, clean electricity has taken the centrality in current electricity development projects. In the Net Zero Emissions (NZE), electricity accounts for around 50% of final energy use by 2050 (around 30% in the APS).

Given that electricity delivers useful energy services with better efficiency than other fuels, the IEA posits that, the contribution of electricity is even higher than these numbers would suggest. The rise of electricity requires a parallel increase in its share of energy-related investment. The Outlook also reveals that since 2016, global investment in the power sector has consistently been higher than in oil and gas supply (which is a great development in the climate change discourse). The fastness in the clean energy transitions, the wider this gap becomes, and as a result, electricity becomes the central arena for energy-related financial transactionsⁱⁱⁱ.

Attempts to actualize the right of development through attainment of the Millennium Development Goals (MDGs) and now the Sustainable development Goals (SDGs) in developing countries, have served clearly to highlight the fact that development is premised on the availability of modern and clean energy services to the wider segment of the population^{iv}. There is also a very strong and vital nexus between clean energy and sustainable development. In fact, the growing importance of clean electricity in contemporary developments has

necessitated the emergence of a new right (right of access to energy services) which is debatably considered a human right today. Like the right to development, the right of access to energy services has been driven by the United Nations specialized agencies such as the United Nations Industrial Development Organization (UNIDO), the United Nations Development Program (UNDP)^v and other international organizations such as the International Energy Agency (IEA). For more than a decade, the IEA has in its flagship yearly publication (*World Energy Outlook*) highlighted the crucial role access to energy services has to play in increasing national development levels. It is now clearly identified as being essential to the realization of the right to development, and is therefore in the process of evolving into becoming a newly emerging human right of the twenty-first century^{vi}.

The term electricity services refer to the benefits derived from the use of clean and efficient electricity sources, over and above that derived from basic biomass, which is largely the fuel of the poor in developing countries^{vii}. These benefits make fundamental differences to peoples' lives and standards of living. They include mechanical power for work, so that tasks like grinding corn or other grains, or harvesting crops are made easier; lighting for reading and greater productivity at night; cooking safely and without the stress of having to regularly source for firewood or other basic biomass; refrigeration so that one is freed from having to buy food daily, or have needed food rotting away; telecommunication so that there is no longer the need for the poor to embark on costly and long journeys in pursuit of transactions that can easily be concluded over the phone; and transportation, without which the people will have to walk over long distances or travel on donkeys, camel, horseback or bicycles^{viii}. The fuel of the poor (firewood, crop waste, dung, and wood shavings) cannot provide such services and therefore, the term access to electricity services implies access to services derived from more efficient and clean fuels, thereby providing greater opportunities for greater productivity^{ix}.

The 2010 statistics of the IEA reveals that, while millions of people now have access to modern electricity services, one fifth of the world's population (1.4 billion people) lack access to electricity and twice as many still rely on traditional uses of biomass for cooking^x. Commutatively, more than 95% of those without access to modern energy services live in the developing countries of Asia and sub-Saharan Africa, with the greater majority living in rural areas^{xi}. In sub-Saharan Africa as of 2013, the electrification rate was 31% and the number of people relying on biomass was 80%^{xii}. Seven of the ten largest population without access to

clean cooking facilities, including two-third of the Indian population, reside in developing Asia^{xiii}.

The poor live in different energy world, restricted to the use of biomass in the crudest form (wood and animal dung) they live at subsistence levels. Women and children are primarily in charge of gathering biomass, and it is an unhealthy, time-consuming and hard task, involving long walks carrying heavy loads in all kinds of weather. These tasks take several times than they normally would, health services are poor, and schools where they exist function at very rudimentary levels. These factors mean that these communities have greatly reduced productivity, and that there are fewer opportunities for growth and breaking away from the prevailing poverty, all of which further perpetuate the existing conditions of underdevelopment, and help trap the user in poverty^{xiv}.

During the era of the Millennium Development Goals, it was recognized that improved access to modern energy services is the single most important component of any development strategy, and none of the MDGs are capable of realization without the use of efficient energy within the very poor communities of the world^{xv}. The Sustainable Development Goals recognize the importance of clean energy (electricity) in the developmental drive of countries, specifically in Goal 7 which makes access to affordable, reliable, sustainable and modern energy for all one of the prerequisites for the attainment of the said Goals^{xvi}. Deprived communities all require access to clean energy (electricity) services, which must be provided by a source of primary energy or an energy carrier, which will be utilized by them. It is now a trite fact that, it is not the presence of the raw resources which is important, or that makes the difference, rather it is the utilization in conjunction with the appropriate end-used technologies, to provide services to the citizens of the country that is of utmost importance^{xvii}.

Energy (electricity) services improve the quality of life, and free people from the burdens of life, effectively lifting them from conditions that can only be described as stone-age in the twenty-first century^{xviii}. Electricity undoubtedly is the single most important factor in defining the way of life of citizenry and until as many people in as many countries as possible have access to clean energy and the services that it provides, achieving the goals of sustainable development and poverty eradication will remain an illusion^{xix}.

In recognition of this, the United Nations in December 2011, declared 2014 to 2024 as the “*Decade of Sustainable Energy for All*”, with the General Assembly reaffirming its

determination of making sustainable energy for all a reality^{xx}. The resolution stressed on the need to improve access to affordable, reliable and environmentally sustainable energy services and resources and highlighted the need to improve energy efficiency and to increase the share of renewable energy and cleaner energy-efficient technologies^{xxi}. The effort was to be driven by *Kandeh Yumkella*, the Director-General of UNIDO and Chair of UN-Energy, who was named as Special Representative for Sustainable Energy for All and Chief Executive. In his words, he recognized the importance of this initiative in finalizing the attainment of the MDGs and for opening up new opportunities for growth and prosperity in every country of the world^{xxii}. This same approach has been upheld by Policymakers as modus to the realization of the Sustainable Development Goals^{xxiii}.

THE BASES ON WHICH ACCESS TO CLEAN ELECTRICITY IS CONSIDERED A RIGHT

Generally speaking, no international Declaration or Resolution explicitly claims that access to electricity is a universal human right^{xxiv}. The only international agreement that explicitly mentions electricity is the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW)^{xxv}. The convention specifies that women should have adequate living conditions, including access to electricity and water^{xxvi}. However, this convention refers to women in particular and still does not provide support for claiming that access to electricity is a right for every human being, the core idea of universal human rights^{xxvii}. From a legal perspective, it seems that the right of access to electricity is still in its infancy. On the other hand, the CEDAW also confirms that it is possible to talk about access to electricity as a legal right^{xxviii}. But the rationale for using such terminology ethically becomes questionable. To settle this uncertainty requires a more detailed analysis of what a right is supposed to be, both its formal and substantial content. Substantive rights are basic human rights possessed by people in an ordered society and include rights granted by natural law as well as the substantive law^{xxix}. Substantive rights include for example the rights of being human such as life, liberty, happiness etc., rather than a right to a procedure to enforce that right, which is defined by procedural law^{xxx}.

Arguably, electricity could be considered as a subsistence right in itself. However, the current point is to flesh-out how one can conceptualize a right to material conditions, whether it is

conceived as subsistence or not. *Henry Shue* sees subsistence as an example of basic rights. He states that, “*basic rights, then, are everyone’s minimum reasonable demands upon the rest of humanity...they are the rational basis for justified demands, the denial of which no self-respecting person can reasonably be expected to accept*”^{xxxix}. Basic rights are rights that other rights are dependent upon, and they can therefore not be sacrificed for other things^{xxxix}.

Shue argues that the right to subsistence includes unpolluted air, unpolluted water, adequate food, adequate clothing, adequate shelter and a minimum of preventive health care^{xxxix}. Electricity is not explicitly included in *Shue*’s list. One reason for this is the apparent close link between subsistence and basic biological needs for human survival. An example of such reasoning can be found in the discussion about the right to water^{xxxix}. It is not obvious that electricity should be understood as a basic right similar to a right to water. Electricity can be sacrificed in order to achieve other things. One can live in a house without electricity, but one cannot live without water. However, a focus on biological needs is too restricted. Such widely accepted rights as the right to free speech are obviously not about biological needs but are related to ideas about appropriate government. One can therefore argue that electricity is a right to a resource, which makes it easier to live a good enough human life even though it might not be necessary for survival^{xxxix}. Moreover, *Shue* himself claims that the main critique facing the right to subsistence does not concern whether it can be a right or not. The critique is aimed at the practical challenges of realizing this right^{xxxix}. It is therefore not unreasonable to conceive access to clean electricity as a right.

After arguing that access to clean electricity can be understood as a right, the next step is to consider what kind of right it is supposed to be. We will discuss three possible answers to this question. The first answer considers access to clean electricity as a contractual right, the second answer presents access to clean electricity as a derived right that is dependent on how we interpret other fundamental and basic human rights in specific contexts, and the third answer posits that access to clean electricity is a universal human right (i.e. it should be available to all humans).

ACCESS TO CLEAN ELECTRICITY FROM A CONTRACTUAL RIGHTS STANDPOINT

As aforesaid, a contractual right is a right that is dependent on a specific relation between human beings. The most important examples are rights you have as part of a community, especially as a citizen. The idea is that an individual can only have a justified claim for access to electricity in a community if the community acknowledges such a right. One example of such rights is the minimum standards for material conditions provided by the welfare state^{xxxvii}. An ethical justification for contractual rights can be found in contractual ethics. *John Rawls*^{xxxviii}, for example, defended a modern version of contractual ethics which is based on the common idea in this tradition that, rules guiding a society should be based on an agreement between the members^{xxxix}. Parties in the contractual situation (the original position) lack knowledge of their actual situation. *Rawls* calls this lack of knowledge the veil of ignorance, and it ensures fairness in the decision procedure^{xl}. *Rawls* claims that parties in the original contract's position would agree to a broad set of primary goods that each contract participant, the contracting parties, should have access to and this includes rights. Primary goods are things that every rational man is presumed to want. These goods normally have a use whatever a person's rational plan of life^{xli}. Primary goods are thus essential for anyone to live a good enough life.

One central assumption is that outside parties do not have access to these rights since they are not recognized as full contractual participants. Thus, actors suffering from deprivation of general needs or frustrated interests do not figure directly in the contract. The contracting parties can, however, agree to principles of solidarity with non-participants, but the latter are dependent on the good will of the participants. *Rawls* does not mention clean electricity nor energy explicitly. But it is possible that the contracting parties can agree that they need energy access and include it in the list of primary goods^{xlii}. Electricity has a wide variety of uses; therefore, it is probable that each member of the contracting parties will be able to use this energy carrier to forward his or her plan of life. An argument against this interpretation is that, *Rawls* adds that primary goods are a necessary means to reach ends, whatever that may be^{xliii}.

However, *Rawls* also related primary goods to people's expectations. People have expectations of certain goods as part of a group even if the exact distribution between the members might vary. Here, it is plausible to say that many citizens have an expectation to gain access to clean

electricity, especially if other citizens have this access. A particular interpretation of a contractual right (an interpretation that *Rawls* would reject) claims that citizens have the right to buy their supply of electricity on the open market. The right to access is conditioned upon such factors as the ability to pay. An argument for a market approach is that electricity can be treated just like any other commodity and be exposed to the same supply and demand factors. This will introduce higher efficiency in the use of electricity and expose consumers to higher prices in high demand situations^{xliv}. If the barriers to enter this market are low, for example, with no state monopoly for electricity generation, there is also the possibility for faster response from electricity producers, which can offset higher prices^{xlv}.

The right to access clean electricity is effectively reduced to a question about consumer rights. Only a consumer that fulfils his or her obligations has a right to electricity. This market access conceptualization of rights is inadequate. As *Shue* points out, a right to something is not a right to have a right to something^{xlvi}. A right is about accessing something concrete such as food. A market-based approach fails to grasp that it is not a right to access a market that matters, it is the enjoyment of what the market can provide that is the object of the right. This confutation does not reduce the force of the claim that access to electricity can be conceived as a contractual right.

More significantly, a contractual conception of access to clean electricity as a right does not consider national or global inequality. This conception of rights cannot easily explain why it is reasonable that more humans should have access to electricity. They are either not part of the contracting parties or lack funds for buying electricity on the market (if at all there is one)^{xlvii}. In 2016, the IEA noted that, a significant part of the global population (at least 1.2 billion people), lack access to electricity and another large group has random and unstable access^{xlviii}. Another key point is that many states can claim that their citizens have access to electricity, but this can in practice be an unsecure and unstable access. The more pertinent issue therefore is to consider to what degree is it reasonable that every human should have access to clean electricity independent of the specific community they live in. This invokes other alternative ways of conceptualizing the right of access to clean electricity.

ACCESS TO CLEAN ELECTRICITY AS A RIGHT DERIVED FROM OTHER RIGHTS

Just as the name implies, a derived, or derivative right is a right based on other rights^{xlix}. Derived rights are necessary for protecting or satisfying basic rights. *Jaakko Kuosmanen*^l believes that basic rights are directly related to the protection or promotion of a human need such as life or housing^{li}. As a derived right, it could be demonstrated for example that, humans have rights to a healthy and sufficient living condition. Electricity can help to improve such conditions. This is the position of *Stephen Tully* who posits that, electricity access is already well established within the framework of human rights, either as an implicit attribute of a pre-existing right (non-discrimination, adequate living standards, housing, health, and sustainable development) or explicitly in the context of eliminating discrimination against women^{lii}.

Tully claims that electricity becomes a right because of such rights as the right to housing. The benefits of this position are that access to electricity can be adequately protected in a society that conceives that good housing is a human right and that housing includes access to clean electricity. *Owoeye* presents an overview of UN proceedings and activities that make direct references to energy issues. He especially notes the outcome document of the United Nations Conference (Rio + 20), a document that was also adopted by the United Nations as a General Assembly Resolution. He comments on the outcome document's provision found in *paragraph 125* and notes that this provision clearly accentuates the significance of energy (electricity) access to the right to life, the right to health, the right to social security, the right to the highest attainable standard of living and the right to development^{liii}. It is again noteworthy that the focus is on the derived importance of clean energy (electricity). What is even more important is that, clean electricity access is included in a modern conception of a good life, which is closely connected to improved material conditions and the right to development^{liv}.

Jack Donnelly stresses from the conclusion that if there is a right to something, there is a long step to interpret and apply this right. He claims that there is a strong global consensus on the concept of human rights but clear disagreements on how these concepts should be interpreted as well as how they should be implemented in concrete contexts^{lv}. The right to work, for example, can be interpreted in several different ways. Should it mean that individuals are guaranteed a job or is it enough with unemployment compensation? A number of interpretations of this right can be equally reasonable^{lvi}.

Martha Nussbaum argues that each human being should be able to live a life of dignity, a life that everybody would consider a minimally decent human life^{lvii}. She makes a list of 10 possible ways of living, which each person should be able to have in order to live a decent human life^{lviii}. *Nussbaum's* list includes, for example: each person should have bodily integrity and ability to move around freely; that each person should be able to use their practical reason to plan their life; and that each person should have time for play and recreation. The list includes substantial ideas about what should be part of every life and goes far beyond material conditions^{lix}. The Capabilities approach is closely related to human rights with its focus on every human's justifiable claims.

In relation to *Nussbaum's* capabilities list, it is clear that electricity is a very practical way to assist people in developing their practical reason and to give them time for play. Most humans need to spend much of their time in different types of work-related activities. The time for reading and relaxing is often the evenings. It becomes significantly more difficult to engage in these activities when one lacks access to electricity. An essential issue from *Nussbaum's* perspective is that electricity provides options to live in other ways, and her list provides a clearly articulated normative proposal on what this should mean in practice. This suggests there is a reason to provide every human with electricity to facilitate more options. On the other hand, *Nussbaum's* position is open to the fact that this is an empirical question. If there are other ways to strengthen capabilities than providing electricity, these might also be worth pursuing.

THE HUMAN RIGHTS BASIS OF ACCESS TO CLEAN ELECTRICITY

The right to a healthy environment has successfully gained the status of a human right in contemporary times. The difference between a derived human right and a universal human right concerns the scope of a right. Both rights presume that electricity has no inherent importance and that its purpose is to protect values that are more fundamental, for example, biological needs. Thus, in this section, we ponder on what extent it is reasonable to treat access to clean electricity itself as a universal human right, a right that is only dependent on being part of the species *Homo sapiens*^{lx}. It is common knowledge that necessity is the birth of all inventions and laws are instituted within the changing times for the betterment of a people in a particular community.

Shue argues that “basic rights” have a universal scope. As noted, before, a key part for *Shue*’s argument is that, basic rights include a demand towards the rest of the humanity to be treated in a way that is consistent with self-respect^{lxvi}. Jack Donnelly provides a similar theory about rights, but he explicitly uses human rights terminology. He says human rights are firstly, a minimum set of goods, services, opportunities and protection that are widely recognized today as essential prerequisites for a life of dignity, and secondly, a particular set of practices to realize these goods, services, opportunities, and protection^{lxvii}. For *Donnelly* and *Shue*, part of a right is what it does for humans (that is, if it protects or facilitates a minimum level of self-respect or dignity). These ideas are related to electricity in the sense that in some societies, such as members of the Organization for Economic Co-operation and Development (OECD), one cannot easily function as a citizen without access to electricity^{lxviii}. Therefore, there is a great necessity for the electricity supply to be from a clean source.

Rawls too claims that self-respect is an important part of his list of primary goods in addition to rights, liberties, income, wealth, powers and opportunities^{lxix}. The parties in the original position will agree to the idea that whatever kind of life they want to lead, they need to be able to have confidence in their life plans and abilities to realize them. This also includes confirmation from others who share these projects and an ability to avoid conditions that might undermine individual’s confidence in realization. One needs to have confidence to carry out life plans. Access to clean electricity provides support for this since it, for example, enhances the chances of obtaining an education that will affect one’s whole life. This reasoning suggests that it is sensible to consider access to electricity as a universal human right that is of importance for every person.

However, there are also problems with understanding access to electricity as a universal human right. The first problem is related to the factual challenges with treating electricity as a right. The second problem relates to the extension of rights language to clean electricity access itself.

The first problem facing this specific conception of the right to electricity access is practical and based on empirical factors. According to the International Energy Agency (IEA), fossil fuels such as coal, oil and natural gas provided 66.7% of the total electricity production in 2014^{lxx}. The International Panel on Climate Change (IPCC) has produced ample evidence that anthropogenic climate change is dependent on fossil fuel combustion and associated Carbon dioxide (CO₂) emissions^{lxxi}. Any discussion about electricity must therefore be conscious of

the close relationship between fossil fuels and electricity production in the light of climate change.

Besides fossil fuel based and CO₂ intense production systems, there are nuclear power and renewable energy. Nuclear power produced 10.6% of all electricity in 2014. The main type of renewable energy is hydropower, which constituted 16.4% of the total electricity generation that year. Other renewable energy sources such as geothermal, wind and solar produced 6.3% in 2014^{lxvii}. The upshot is that many humans are highly dependent on fossil fuel for their electricity supply, and a reason for this is that it can be relatively inexpensive, especially in cases where there is an existing infrastructure already adapted to such fuels. Total costs would most likely increase significantly if all environmental costs were included. Nevertheless, the production systems themselves do not include such costs. Key treaties like the Paris Agreement from 2015 also state that relatively poor countries should be allowed to continue to increase their greenhouse gas emissions in order to eradicate poverty^{lxviii}.

If all humans have a right to electricity and this implies that each state has an obligation to satisfy this right, there is a risk that states still perceive fossil fuel powered production systems as the most attractive for improving electricity access. This is a case where human rights might be in conflict with sustainable development^{lxix}. If sustainable development implies that there has to be a transition from fossil powered electricity generation to renewable generation, many poor states will face extra burdens in the form of lack of know-how and additional costs to promote this right. This is an unfairness that seems incompatible with an egalitarian idea of energy justice^{lxx}.

The second problem regards the use of rights language and electricity. For example, *Bradbrook* and *Gardam* stress that it is the energy services provided by different resources that are important and not the type of energy^{lxxi}. They additionally claim that energy underpins all rights, including the right to water and that energy therefore should have a clearer recognition in international human rights policy and law^{lxxii}. The argument that access is important and not the actual resource can be both extended and challenged with the help of Nussbaum's writing.

From Nussbaum's perspective, electricity is still a means to an end. Nussbaum does not provide a list of material resources that should be considered to be rights. In fact, she argues against such lists. She criticizes *John Rawls'* list of primary goods as inherently limited. Individuals are different in their capacity for converting resources into different ways of living their lives.

Some individuals, such as those who have different disabilities or children might need substantially more resources to live a life of dignity. Thus, providing electricity will not help somebody if they are more in need of a personal assistant. Focusing on only access to electricity can hide other inequalities that might be much more important.

Based on Nussbaum's analysis, the most essential challenge in claiming that access to electricity is a universal human right is that it risks extending human right language too far. One can argue that the idea that access to certain resources, such as electricity, should be conceived as human rights can diminish our focus on the main point with rights. Universal human rights should focus on securing a minimum level of what is of universal importance for humans, such as good health or similar needs. Electricity is not always the most useful way of solving our needs. Other alternatives might be more appropriate, especially in rural areas. For example, there is evidence that fuels such as liquefied petroleum gas (LPG) is both cheaper and thermodynamically more efficient in providing energy for cooking compared to electricity^{lxxiii}. The IEA points out that LPG and similar fuels might be the most realistic alternative to biomass for cooking when there is a lack of electricity related infrastructure^{lxxiv}. It is also noteworthy that IEA claims that universal access to electricity would cost around 1.1 trillion USD until 2040, but the investment for reaching universal access to cleaner cooking facilities would cost just around 5% of this sum^{lxxv}. Aiming for access to cleaner cooking facilities can therefore be a more efficient and realistic use of funds. The long-term goal of universal energy access might eventually be reached through global electrification. However, in the meantime, there are arguments for using other sources of energy too as complements.

CONCLUSION

Lars Löfqvist notes that, electricity provides numerous benefits to human beings^{lxxvi}. The arguments presented in the analysis do not challenge this claim. It has been argued that it is possible and reasonable to consider electricity access as a right. It is also not surprising that states consider electrification and access to electricity a core need of its citizens. The argument for considering this as a contractual right is well supported by the actions and understanding of how states promote electricity. An aspect that contractual rights miss is that, some states are unable to provide electricity to its citizens. Another issue is that non-citizens' need for electricity is negotiable. Non-citizens cannot make binding claims on a state to provide electricity if access to electricity is conditioned on citizens' status. This makes the contractual

understanding of electricity as a right too restricted. This conception does not capture the unique influence electricity has for us to lead our lives.

According to him, derived rights provide a stronger argument that even non-citizens should have access to electricity. The core human right documents claim that access to a certain material standard, such as housing, is a human right. *Nussbaum's* reasoning on capabilities provides a philosophical argument for using electricity to strengthen people's abilities to lead their own life. This is a powerful argument to consider access to clean electricity at least as a right derived from other rights. Nevertheless, this position also acknowledges that access to clean electricity will be dependent on local contexts and that it is not reasonable to claim that all humans have a right to electricity access.

Finally, it was noted that our need for social recognition and ability to lead our life is supported by electricity. If electricity access is so important, it is relevant to consider if it can be a universal human right. This claim that electricity is a universal human right faces two important problems. The first is that it is practically challenging to provide electricity to every human being. Since electricity generation is still dominated by fossil fuels, there is a risk that the right to electricity clashes with the goal of sustainable development. It was noted that it is problematic to extend human rights language to include electricity access itself when there might be far cheaper and faster ways to satisfy humans energy needs.

The second argument against considering access to electricity as a right is that it extends rights language to include different means for supporting humans to live good enough lives. Such an extension is unnecessary in this case. To put it bluntly, a right to health might sometimes be best served with an X-ray machine, but it is not necessary to extend rights language to include this machine. In many instances, a right to health is best supported with vaccinations and access to high quality food. The rights humans have to electricity access should be understood in the same way. It is enough to claim that basic rights and people's abilities to lead good enough lives are often best protected and promoted with X-ray machines and electricity.

Therefore, from the above analysis we have made of the three angles from which the right to clean electricity is previewed, it is my opinion that, the right of access to clean electricity fits perfectly as a derived right. This is because, the right cannot survive on its own, rather it rests on the shoulders of other rights such as the right to economic development for its survival.

ENDNOTES

ⁱ International Energy Agency, *World Energy Outlook 2021*. Revised version,

December 2021. Pp. 29. Available at www.iea.org/weo (Accessed on November 22, 2022).

ⁱⁱ Ibid

ⁱⁱⁱ Ibid

^{iv} Yinka Omorogbe, “Promoting sustainable Development through the Use of Renewable Energy: The Role of the Law”. In Donald Zillman, Lila Barrera-Hernandez, Yinka Omorogbe and Catherine Redgwell (eds), *Beyond the Carbon Economy: Energy Law in Transition* (Oxford university Press, 2008).

^v Modi V., McDade S., Lallemond D., and Saghir J. *Energy Services for the Millennium Development Goals* (2006), available at www.unmillenniumproject.org; Andrain Bradbrook, “Access to Energy Services in Human Rights Framework”. Parliamentary Framework on Energy and Sustainable development, 5-7 October 2005, Cape Town, South Africa, where the right is expatiated upon; Energizing the Millennium development Goals (2005), United Nations Development Program, available at www.undp.org; Yinka Omorogbe, “Promoting sustainable Development through the Use of Renewable Energy: the Role of the Law”. In Donald Zillman, Lila Barrera-Hernandez, Yinka Omorogbe and Catherine Redgwell (eds), *Beyond the Carbon Economy: Energy Law in transition* (Oxford university Press, 2008).

^{vi} Yinka Omorogbe, “Policy, Law and Actualization of the Right to Access to Energy Services”. Kim Talus (edt), *Research Handbook on International Energy Law*. Edward Elgar Publishing Limited. Pp. 371.

^{vii} Ibid

^{viii} Ibid

^{ix} Ibid

^x World Energy Outlook, “Global Status of Modern Energy Access”. Available at www.worldenergyoutlook.org. According the *World Economic Outlook 2010*, which focuses on the right to access to energy services, residential electricity consumption in that region (with the exception of South Africa) is roughly equivalent to consumption in New York. This means that the 19.5 million residents of New York use about the same amount of electricity as the 791 million people of sub-Saharan Africa.

^{xi} Yinka Omorogbe, op. cit. notes 2, pp. 371.

^{xii} Ibid

^{xiii} Countries with the largest population without access to electricity in 2010: Congo, Pakistan, Tanzania, Kenya and Uganda. Countries with the largest population relying on traditional biomass in 2010: India, China, Bangladesh, Indonesia, Nigeria, Pakistan, Ethiopia, Democratic Republic of Congo, Vietnam and the Philippines. “Measuring Progress towards Energy for All: Power to the People?”, in *World Energy Outlook 2012*, 533-4, available at www.worldenergyoutlook.org. (Accessed on June 27, 2022).

^{xiv} *Meeting the Challenge for Rural Energy and development*, www.worldbankk.org. (Accessed on June 27, 2022).

^{xv} Yinka Omorogbe, op. cit. notes 2, pp. 372.

^{xvi} See <https://www.unep.org/explore-topics/sustainable-development-goals/why-do-sustainable-development-goals-matter/goal-7> (Accessed on November 22, 2022).

^{xvii} Yinka Omorogbe, op. cit. notes 2, pp. 372.

^{xviii} Ibid

^{xix} Ibid

^{xx} United Nations General Assembly declares 2014-2024 Decades of Sustainable Energy for All, General Assembly GA/11333 EN/274, December 21, 2012, available at www.un.org/News/Press/docs/2012/ga11333.doc.htm (Accessed on June 27, 2022).

^{xxi} Ibid

^{xxii} Ibid

^{xxiii} Sustainable Development Goal 7.

^{xxiv} Adrian J Bradbrook and Judith G Gardam, “Placing the Access to Energy Services Within a Human Rights Framework”, *Human Rights Quarterly* 389 (2006): 405, 409; Olasupo Owoeye, “Access to Energy in Sub-Saharan Africa: A Human Rights Approach to the Climate Change Benefits of Energy Access” *Environmental Law Review* 284 (2016), 285, 289.

^{xxv} See <https://www.un.org/womenwatch/daw/cedaw/> (Accessed on November 22, 2022).

^{xxvi} Olasupo Owoeye. Op cit. (n 24) 293.

^{xxvii} Human rights are rights inherent to all human beings, regardless of race, sex, nationality, ethnicity, language, religion, or any other status. Available at <https://www.un.org/en/global-issues/human-rights> (Accessed on December 1, 2022).

- ^{xxviii} Lars Löfquist (2020), “Is there a Universal Human Right to Electricity?”, *The International Journal of Human Rights*, 24:6, 711-723, DOI: 10.1080/13642987.2019.1671355. P. 715.
- ^{xxix} <https://www.un.org/en/global-issues/human-rights> (Accessed on December 1, 2022).
- ^{xxx} Ibid
- ^{xxxi} Henry Shue, “Basic Rights: Subsistence, Affluence and U.S. Foreign policy”. *Princeton NJ: Princeton University Press*, 1980, pp. 19.
- ^{xxxii} Ibid., pp. 19f.
- ^{xxxiii} Ibid., pp. 23.
- ^{xxxiv} The right to water is well supported in the international human rights regime. See United Nations, ‘The human right to water and sanitation’ (General Assembly Resolution 64/292, UN 2010).
- ^{xxxv} Lars Löfquist. Op. cit. (n 27) pp. 715.
- ^{xxxvi} Henry Shue. Op cit. (n 31) pp. 91.
- ^{xxxvii} Citizenship can be viewed in several ways besides a contractual relationship between citizens. See Hartley Dean Welfare Rights and Social Policy (Taylor and Francis 2002) for an extended historical and philosophical analysis of welfare rights and their relationship to different ideas about citizenship.
- ^{xxxviii} John Rawls (b. 1921, d 2002) was an American political philosopher in the liberal tradition. His theory of justice as fairness, describes a society of free citizens holding equal basic rights and cooperating within an egalitarian economic system. Available at <https://plato.stanford.edu/entries/rawls/> (Accessed on December 13, 2022).
- ^{xxxix} John Rawls, *A Theory of Justice* (Oxford: Oxford University Press 1971). Pp. 11ff.
- ^{xl} Ibid., pp. 136ff; see also <https://plato.stanford.edu/entries/rawls/> (Accessed on December 13, 2022).
- ^{xli} Ibid., pp. 62.
- ^{xlii} Ibid
- ^{xliiii} Ibid., pp. 93.
- ^{xliv} Cliff Rochlin, “Is Electricity a Right?” *The Electricity Journal* 31 (2002), pp. 33f.
- ^{xlv} Ibid., pp. 35.
- ^{xlvi} Henry Shue. Op cit. (n 28) pp. 15.
- ^{xlvii} Rawls is aware of this limitation. He provides additional arguments that societies have responsibilities to assist each other in his later writings. See John Rawls, *The Law of Peoples* (Harvard University Press 1999).
- ^{xlviii} Olasupo Owoeye. Op cit. (n 24) pp. 284; Adrian J Bradbrook and Judith G Gardam (n 24) pp. 390; International Energy Agency, *Energy and Air Pollution: World Energy Outlook Special Report* (IEA 2016) pp. 55.
- ^{xlix} Jaakko Kuosmanen. “Repackaging Human Rights: On the Justification and the Function of the Right to Development”, *Journal of Global Ethics* 303 (2015), pp. 308.
- ^l Dr. Jaakko Kuosmanen is a research fellow and Programme Coordinator of the Oxford Martin Programme on Human Rights for Future Generations. Available at <https://ohrh.law.ox.ac.uk/author/jaakko-kuosmanen/> (Accessed on December 13, 2022).
- ^{li} Kuosmanen uses the term “foundational rights” instead of “basic rights”. Ibid., Pp. 317.
- ^{lii} Stephen Tully, “The Human Right to Access Electricity”. *The Electricity Journal* 30 (2006): 38.
- ^{liii} Olasupo Owoeye. Op cit. (n 24) pp. 294f.
- ^{liv} For example, see Lars Löfquist, ‘Climate Change, Justice and the Right to Development’, *Journal of Global Ethics* 251 (2011).
- ^{lv} Jack Donnelly, “Universal Human Rights in Theory and Practice”, 3rd ed. (Ithaca, NY: Cornell University Press, 2013), pp. 100ff.
- ^{lvi} Ibid., 102.
- ^{lvii} Martha C Nussbaum, *Creating Capabilities: The Human Development Approach* (Cambridge: The Belknap Press of Harvard University Press, 2011) pp. 18ff.
- ^{lviii} Lars Löfquist. Op. cit. pp. 717.
- ^{lix} Ibid
- ^{lx} Ibid
- ^{lxi} Henry Shue. Op cit. (n 28) pp. 19.
- ^{lxii} Lars Löfquist. Op. cit. p. 718.
- ^{lxiii} Ibid
- ^{lxiv} Ibid
- ^{lxv} International Energy Agency, *Key World Energy Statistics 2016* (IEA, 2016), 24
- ^{lxvi} Intergovernmental Panel on Climate Change, *Climate Change 2014 Synthesis Report* (IPCC, 2015), 45ff.
- ^{lxvii} International Energy Agency. op. cit. (n 64).
- ^{lxviii} United Nations, “Paris Agreement” (UN 2015) Article 4, pp. 4.

^{lxi} Stephen Tully, “The Contribution of Human Rights to Universal Energy Access”, *Northwestern Journal of International Rights* 518 (2006), pp. 545.

^{lxx} Lars Löfquist. Op. cit. pp. 719.

^{lxxi} Ibid

^{lxxii} Ibid

^{lxxiii} International Energy Agency, *World Energy Outlook 2006* (IEA, 2006), pp. 444.

^{lxxiv} Ibid

^{lxxv} International Energy Agency, *Energy and Air Pollution: World Energy Outlook Special Report* (IEA 2016) pp. 119.

^{lxxvi} Lars Löfquist. Op. cit. (n 27) pp. 719.

