# A Constitutional Approach to the Rights to Water and Energy

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Abstract—The present paper focuses on human rights to the water and to the energy and has a scope to promote the legal status on sustainable construction. The right to water constitutes a typical example of 3G fundamental rights, like the right to enjoyment of energy, particularly of electricity, whilst the right to energy efficiency is a right of fourth generation. Both rights to water and energy are examined through their consecration in the framework of the abovementioned generations. It results that not only decision-makers but also citizens should fight for the further consecration and adequate use of these crucial rights, having to do with the urgent problem of climate change and the sustainable development. The time for the principle of water and energy "rule of law" has come.

**Keywords**—Climate change law, energy (en + ergon) efficiency, fundamental rights, prosumer, water.

# I. Introduction: Water = Sustainability, Energy= Potential Work

Water is an abiotic component of an ecosystem, like all other non-living factors, such as the atmosphere. It is about a transparent and nearly colorless chemical substance of the environment that deserves a particular research, not only in ecological terms but also in juridical ones. It does not exemplify merely the (material) environment but also the energy, which is itself a part of the environment. So, the environment is water-centered, as far as its abiotic components are concerned. United Nations have consecrated since 1992 the 22<sup>nd</sup> March as the World Water Day. In 2017, they focused on wastewater and ways to reduce and reuse as over 80% of all the wastewater from homes, cities, industry and agriculture flows back to nature polluting the environment and losing valuable nutrients and other recoverable materials [1].

For water in ancient Greek was used the word "ydor" whilst in modern Greek 'nero', coming from the ancient Greek adjective 'naron'. That word meant flowing, fluid and had a common origin with the adjective 'aenaon', which means literally flowing forever, so perpetual, sustainable [2]. It results that the mainstreaming symbol for the principle of sustainability is the (flowing) water. In a similar way, energy is a noun of Greek origin. The Greek word "energeia" means activity and power, from 'energos', active, working, from "en" (in or at) and 'ergon', work [3]. So, energy is related to future construction, meaning potential work.

The present paper focuses on human rights to the water and to the energy, without covering particularly a jurisdiction but it is strictly related to the European Union legal order, as far as

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the right to energy efficiency is concerned in the framework of the relatively new branch of energy law [4]. It has a scope to promote the legal status on the crucial question of sustainable construction. Its hypothesis is that the right to water deserves enhancement.

Firstly, an analysis is going to be made on the specific question of the existence and the dynamic of the right to water. Besides, an approach to the legal regime on energy, with emphasis on the right on the matter, will follow. Then, a discussion of the hardcore findings will complete the research.

#### II. THE RIGHT TO WATER

A. The 'Baptism' of the Right to Water within the Third Generation

Firstly, we should recognize that there is an important prehistory of the right to water, consisting in the diachronic, autonomous, specific branch of maritime law. Greek people in ancient times elaborated the maritime rules to such a pitch that they regulated legal institutions, like the naval repacking, which are actual even in the current era.

The right to water does not constitute an old right but a quite modern one. It is an example of the 3G rights, in the history of consecration of fundamental rights in the world setting. The first generation begins in the period of the American Revolution and mainly the French one and includes civil rights, such as to life, freedom and property, and political rights, such as to elect and to be elected as a member of the Parliament.

The second generation emerges at the end of World War I and has to do with social rights, for which the State is supposed to enact the role of donator of various services, exemplified by education and health. Even tourism and hotel industry were explicitly institutionalized in the initial version of the Italian Constitution that came into force in 1948. It comprises also the cultural rights, such as to art and to education, and the economic rights to employment, syndicalism and strike.

The third generation begins about 1972 (with the United Nations Conference on the Human Environment, held in Stockholm in 1972) and is intensively related to the constitutional principle of solidarity towards society. This set of rights comes from the doctrine of international law and was recognized by constitutional science rather late and with skepticism. The legal nature and the exact content of these rights, which were initially regarded as rights of the people in the international context rather than conventional fundamental rights of each person, were widely challenged. However, they existed already, to an important extent, in the Constitutions of

70s, as it is the case of the new Constitution of Greece, adopted in 1975, which recognized the rights (or general principles) of peace, international friendship, protection of the environment, development etc. So, due to the quite vague formulation adopted, there is inter alia the question on the legal nature of these rights. More precisely, they might have been consecrated as authentic fundamental rights of private individuals (or merely ''specific obligations'' of the State), institutional guarantees or general principles of the Constitution. Certainly, no absolute classification exists as far as these categories of constitutional guarantees (rights, institutional guarantees, principles), in the sense that the same good may be protected in various legal forms, like the abovementioned, let alone in the same text.

If the doctrine was in delay to recognize the existence of a new generation of fundamental rights, it seems still reluctant to make an explicit reference to the fundamental right to water. For instance, in the current era it recognizes it among other fundamental rights, such as the rights to a healthy environment, to peace, to development (by regarding them as 3G rights) [5]. Otherwise, it makes a rather narrow reference to the safe drinking water within the right to the environment [6]. It is to clarify that some scholars making a reference to this right seem to "ignore" or to contest the existence of a fourth generation. Anyway, the doctrine considers that the right to water results from the dignity of the human being, by formulating the following position: "Lack of water brings thirst, inadequate personal hygiene and illness and may lead to death. Life without water, insofar as someone survives, is an undignified life..." [7].

The water is recognized as a human right in various legal texts, inter alia due to the important problem consisting in resource scarcity that a big percentage of humanity faces [8]. Another relevant phenomenon has to do with floods, as it is typically the case of Venice. In 1973, a law was adopted on safeguarding Venice, which we consider as the milestone for the beginning of the era of the fundamental right to water, in the world context.

Almost from scratch, the right to water was connected with the legal protection of women's position, particularly in the underdeveloped countries of the planet. For instance, the most common perception of this problem is probably the image of a woman carrying a jar of water on her head. One of the various problems on the matter has to do with the access to land and water resources. Irrigated land is the main source of living for many rural populations. In some Mediterranean countries the inheritance laws discriminate women against men, as women receive half of the land or no land at all [9]. The UN Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) adopted in 1979 by the UN General Assembly, is the first international text to preview explicitly the human right to water. According to par. 2 of article 14 on "Rural Women":

"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".

In a similar way, the first legally binding international text on the rights of human beings younger than 18 years of age, namely the UN Convention on the rights of the Child, consecrates explicitly the right to the water as a use of the right to the enjoyment of the highest standard of health [10]. It previews in par. 2c of article 24 the obligation of States Parties 'to combat disease and malnutrition, including within the framework of primary health care, though, inter alia, the application of readily available technology and through the provision of adequate nutritious foods and clean drinking – water, taking into consideration the dangers and risks of environmental pollution''.

# B. Constitutionalizing the Right to Water within the Fourth Generation

The right to water has been promoted in the current era of 4G rights (from about 1992 and on), as it has to do with the new branch of climate change law [11]. In the non-binding text "Oslo Principles on global climate change obligations to reduce Climate Change", adopted in March 2015, scholars and judges explicitly recognized the right to water whilst the Paris Agreement within the United Nations Framework Convention on Climate Change (UNFCCC), adopted in December of the same year, made no explicit reference to this right. Not only had the aforementioned academic group recognized the right to water, but it had also signalized that this right was one of the rights being threatened by the phenomenon of climate change.

As far as the Paris Agreement is concerned, it was put into force on 4<sup>th</sup> November 2016. Its aim is to enhance the implementation of the UNFCCC through:

- (a) Holding the increase in the global average temperature to well below 2 °C above industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above preindustrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;
- (b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production;
- (c) Making finance flows consistent with a pathway towards low greenhouse gas emissions and climateresilient development.

The contribution of each state to achieve the worldwide goal of the Agreement is determined by all states separately and is called 'nationally determined contribution'.

On 24<sup>th</sup> June 2015, the Dutch district Court of Aia emitted a sentence against the Dutch State, by not rejecting the recourse of the non-governmental organization "Dutch Urgenda Foundation" and others. It imposed to the government to adopt stricter policies in the matter of climate change in order

to protect the right of citizens to live in an environment unthreatened by climate alterations in the near future [12]. It noted that, according to the energy policy in force, till 2020 the State would achieve to limit down its greenhouse gas emissions to the maximum of 17%. This measure was insufficient in view of the importance and the significance of climate change, so the minimal reduction to achieve should be of 25%. The tribunal added that the government cannot justify its inactiveness by making use of the argument that the solution of the climate change problem depends only to a very small extent on Holland. This sentence has got a great impact worldwide and some environmental organizations in Belgium and Norway declared that they would take judicial initiatives against the governments of the correspondent countries. For the first time, a judicial authority considered that containing the climate change does not constitute a question reserved to the discretional faculty of the legislative power or the executive one of a State but is a resource of rights of citizens, which countries should respect. Some days after the publication of the Dutch sentence, a judge of the USA examined the recourse submitted by young students and ordered the Ecology Department of the State of Washington to reconsider their application, presented in 2014 and rejected by the Department. It was about a proposal for the adoption of measures to reduce the greenhouse gas emissions in the interior of the State, on the basis of the most reliable scientific data. The verdict, in line with the Dutch jurisprudence, signalizes that the youngsters are endowed with a fundamental right to live in the future in a healthy environment and that the Ecology Department had in no way disputed the data offered by the students and shared by the international academic community in the matter of damage resulting from climate change.

It is about the first case of jurisprudence worldwide as for the litigation of climate law, which does not reject the recourses, particularly of ecological organizations, against either States or technical companies, with the pretext that this topic is a political matter either of government or of Parliament, exempted from judicial control. Ecological movement realized that it was unable to persuade the international community to adopt a legally binding agreement contain the climate change and two American environmentalists, who cared deeply about environmentalism, made speech of the "Death to environmentalism" [13]. It was about an essay released at an October 2004 meeting of the Environmental Grantmakers Association, which reminded that over the last 15 years environmental foundations and organizations had invested hundreds of millions of dollars into combatting global warming and caused a vast debate on the

The last ten years before the new movement of jurisprudence, ecological organizations modified their strategy, by emphasizing on the judicial way in the interior of single sovereign States, to obtain what the international community did not offer to them. In their turn, judges began to change their attitude, from the self-restraint concept, typical for political matters, to the approval of the judicial recourses,

on the basis of fundamental rights threatened by the climate change and against the inactivity of State decision-makers. Besides, French legal order has proved to be pioneer as far as protection of the environment and the right to water are concerned. The Constitutional Council on 11<sup>th</sup> October 2013 did not judge as unconstitutional the law of 13<sup>th</sup> July 2011, which is the first worldwide to ban ''hydraulic fracturing'' (or ''fracking''). Fracking constitutes a method, based on the use of water, for the localization and extraction of natural gas or petroleum. An environmental downgrade of the subsoil and of surface waters, as well as consumption of big water quantities have been attributed to this method [14].

The lawyer of the American company "Schuepbach Energy LLC", which had been already endowed with two permits of research through this method, in a vast zone of France, alleged in vain that the legislative framework constituted a too severe application of precaution. This principle was explicitly consecrated, let alone defined, in article 5 of the "Charter for the environment". This important legal text constitutes a text of constitutional level, according to the Preamble of the French Constitution.

Water is not threatened uniquely by extraction methods but also by other factors, such as the control exerted on 60% of the rivers worldwide, for the production of energy [15]. It has been so actual in the comparative Constitutional Law that in 2011 two referendums were held in Italy, on the rules consenting to the privatization of the water and to the production of nuclear power. These referendums, through which these eventualities were disapproved with a vast majority, are two of the just 7 referendums that changed the political flow of Italy or have been deeply engraved in its political life, from 1974 to 2016 [16]. Besides, in the Greek legal order we consider the decision 1906/2014 of the Plenum of the Council of State as the birth decision on the constitutional force of the right to water. The supreme court blocked the privatization of the public company of water supply and drainage of the region of the capital of Greece. It considered the privatization as unconstitutional, due to transgression of par. 5 of article 5 on the right to health, and of par. 3 of article 21, on the State care of citizens' health. This unexpected change of the jurisprudence has raised criticism of a part of the doctrine, which has backed up the minority position of the decision, or at least has led the doctrine to invoke other constitutional dispositions, such as par. 3 of article 106 on the faculty of the State to acquire businesses delivering services to society [17]. The Council of State made use of the existent explicit dispositions on the right to health, instead of proceeding to the recognition of an autonomous, universal, constitutional right to water. However, we consider that essentially it recognized this right as a fundamental right of constitutional order, although not explicitly formulated in the Constitution. It is to add that judges, having to cope with the water supply of the headquarters of their tribunal and of the place of residence of themselves, could make reference to the fact that many residents had stopped drinking water coming from the network of the public company due to its bad taste and so had been led to make consumption of the market

water, sold by private companies. This development, which essentially compromises the prestige of the public company involved, reminds of the use of drinking water, made by sailors during the maritime journeys. If the legal regime on water is comparable with maritime law, as already signalized, water practices of people in land are comparable with those of professionals onboard...

Last but not least, Tunisia since 2014 has been endowed with constitutional article 44 which previews: "The right to water is guaranteed. The preservation of the water and the rationalization of its exploitation is a duty of the State and the society". In November 2016 Slovenia became the first State in Europe to consecrate explicitly the "right to drinking water", in article 70a, without avoiding political controversies. Anyway, it is to wander why the right to water in its integrity was not incorporated into the Constitution.

# III. THE RIGHT TO ENERGY

As already signalized, there is a branch of law on energy, within which the correspondent right has been consecrated.

# A. Energy Law and the 3G Right to Energy

Energy law is just a specific branch which has no normative and interpretative autonomy, unlike various autonomous branches, such as mainly public law, penal law, civil law and commercial law. We consider that even maritime law deserves this term as it has its own institutions and normative particularities, for instance the legal anthropomorphism of the ship, the crime of piracy committed by only private individuals particularly at the high seas, the rule that the ship is submitted to the law of the State of its nationality, even if it is outside the territorial waters etc.

Anyway, from about 2002 and on, energy law leads a period of revolution [18]. From 1960's and on, it has been characterized by a double set of principles: on the one hand, the monopoly, as far as electricity is concerned, and, on the other hand, the competition, as for the petroleum. Economists referred to the electrical power as a "natural monopoly". Due to more an ideological option than an economic calculation, the EU authorities obliged the member states to introduce competition in a field in which competition seemed impossible to think about. In France, the resistance was strong, but the competition began, some years ago. It is not coincidental that the levier of this revolution is juridical. Indeed, it was not possible to be the consumer as he is not an applicant, particularly because there is no product more standardized than electricity. Even the technological innovation could not make the revolution. Of course, it exists in the renewable energies, but it is not capable to change alone the behavior of consumers and the positions of the operators, just like the mobile telephony did it in the field of telecommunications. Anyway, EU fixed some minimal levels of taxation on most energy products and electricity for the proper functioning of the internal market, through the adoption of the Council Directive 2003/96/EC "restructuring the Community framework for the taxation of energy products and electricity" [19].

Energy law has the following objectives:

- 1. Commercial competition
- Energetic independence of the States: The State makes use of it to guarantee its energetic independence and the safety of its supply.
- 3. Safety of installations of energy industry: Energy law includes norms on safety of installations, becoming more and more dangerous, by previewing measures to take, in case of an incident or of a disaster.
- 4. Environmental care: The legal range of the environmental care, which is reinforced each year the last over 40 years, is impressive. The ambition has to do with the entire planet: it is to fight against the global warming, so a new branch has emerged within environmental law on the basis of the above-mentioned data, the climate law.

Besides, a 3G right has been consecrated, the generic right to energy. If the development of socioeconomic structures results from energy, the right to development is a mainstreaming 3G fundamental right, unlike the right to energy. In other words, international organizations and States wanted to consecrate mainly the rights to development and to environment. As a matter of fact, energy was introduced as a public policy for the development, as it was the case of par.1 of article 106 of the Greek Constitution, adopted in 1975. However, a special focus on energy was not inexistent in the era of 3G fundamental rights. For instance, as already signalized, par. 2h of article 14 of the Convention on the Elimination of All Forms of Discrimination against Women previews the rural women's right to enjoyment of adequate living conditions, particularly in relation not only to water supply but also to electricity, as a necessary for domestic needs form of energy.

# B. The 4G Right to Energy Efficiency

Within the general movement of codification of the French State, the creation of an Energy Code was decided in 2005. The legislative (namely not the regulation - nature) part of the code of energy was put into force in 1<sup>st</sup> June 2011. The regulation part, previewed for the end of 2011, is still inexistent.

Energy law is advanced in two points [20]. On the one hand, it has to do with "soft law". This law highlights the objectives to achieve but without always specifying the means to use whilst its normative value is uncertain. In the French legal order, law Grenelle I, to which refers the Code of the environment, fixes objectives endowed with numbers, as for the development of the renewable energies and the reduction in greenhouse-effect gases. This is the case for 'law n. 2015-992 of 17 August 2015 related to the energetic transition for a green growth", which previews an objective in reduction of the emissions of greenhouse – effect gas by 40% from 1990 to 2030 and to divide by 4 these emissions between 1990 and 2010. It includes also the reduction in nuclear power, as far as the production of electricity is concerned, by 50%, in the horizon 2015. It is to signalize that this is an important development for a State which has been traditionally one of the most dependent in this ambivalent form of power,

worldwide. On the other hand, many texts have a very detailed content. This is the case of the thermal regulation of buildings, introduced mainly through some EU Directives, from 2002 and on [21]. For instance, in Greece energy efficiency of buildings has been promoted to L. 4122/2013, which harmonized the national legal order to energy performance of buildings Directive 31/2010/EC, and L. 4342/2015, for the transposition of Directive 2012/27/EU on energy efficiency.

Regulation on the matter reminds of more a technical textbook than a juridical text. Besides, it is so complicated that, to implement it, the professionals have to make use of software. This phenomenon generates the following paradox: The professionals and their clients denunciate the juridical inflation which flanges initiatives but, when regulation does not guide enough (case that does not constitute the general rule), they denunciate the existence of a 'legal vacuum'. Anyway, there is a fundamental right to energy efficiency, which emerged in the era of 4G rights, particularly in the EU legal order. So, if we admit the existence of an autonomous right to energy, consisting mainly in the enjoyment of energy, as a 3G one, it has been completed by the 4G one to energy efficiency. It is to put the stress on the fact that this form of efficiency focuses on the energy itself but has at least indirectly incidences on finances, the environment and the aesthetic aspect of buildings.

On the basis of the current set of EU directives on energy efficiency, particularly of buildings, there are a lot of specific rights in the framework of the general fundamental right to energy, inter alia such as:

# 1. The Right to Production of Energy

It has to do mainly with the self-production of energy, even by domestic consumers. Due to the advent of new technologies (for instance, photovoltaic systems), clients, either industrial or domestic, can be at the same time consumers and producers, enacting a role known as "prosumer" [22]. Through the use of the smart meters, prosumers are able to be informed immediately on the cost of the amount of energy consumed. So, the traditional system of concentrated production of energy where the energy resources, such as carbon and big rivers, are available, has got an alternative, consisting in the "democratic" dispersed production model.

# 2. The Right to Energy Efficiency

This right is the mainstreaming right within the general right to energy and has to do mainly with buildings, to which the 40% of the total amount of consumed energy refers.

3. The End Users' Right to the Indication of the Consumption of Energy and Other Resources by Energy-Related Products

According to Directive 2010/30/EU "on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products", end users have the right (and simultaneously mainly the suppliers but also the dealers the right - duty) to the indication by labelling of the consumption of energy and other resources like water by energy-related products. This directive for some types of products, like washing machines, establishes common rules for energy and water.

4. Right - Duty of the Companies Acting in the Energy Domain to Contribute to Energy Saving in the End Use

This policy has been previewed in the Greek legal order through, on the one hand, the introduction of obligatory "status of imposition of the obligation of energy efficiency" on the energy companies and, on the other hand, the adoption of other measures coming from the public sector in combination with the voluntary and motivated involvement of energy companies.

5. Right - Duty of the Companies Acting in the Energy Sector and of the Owners of Building Units to Individual Meters of Energy Consumption

This policy has to do with individual metering systems of energy consumption (namely either meters or cost allocators) and mainly with smart metering systems. So, the right to energy efficiency is intrinsically connected with the emblematic 4G right to participate in the Information Society, explicitly previewed in par. 2 of article 5A of the Greek Constitution through the 2001 revision.

6. The Final Customers' Right to Billing of Energy Consumption on The basis of Actual Consumption

Final customers are endowed with the significant rights to billing and to billing information in the matter of their energy consumption on the basis of their real actual consumption.

7. The Owners' Right to Autonomous Heating of Each **Building Unit** 

A modern fundamental right of owners of buildings and mainly of each building unit destined to use either domestic or professional has to do with the autonomous system of heating. This recent development in the Greek legal order is bound to serve the transition to the use of natural gas, which is regarded as a relatively ecological material against traditional fuels.

# 8. The Universal Right to Clean Energy

There is the universal right, particularly of the so-called "prosumers", to the use of clean energy, namely not only in the form of renewable energy resources but also with the modern method of cogeneration (Combined Heat and Power, CHP).

# IV. DISCUSSION OF FINDINGS

In 1817, the invention of the bicycle was achieved, as a result of a climate change crisis [23]. Two centuries later, a 4G right on the matter exists and the climate law has just gained its self-existence against the older specific branch of environmental law due to the need to cope with the urgent problem of climate change. Anyway, the intersections among the energy law, the environmental law and the climate law are increasingly significant. It is also to take account of the fact that humanity leads a period which has been characterized as the 'rights revolution' [24].

As far as the right to water is concerned, it is a 3G one that has two components of content, the right to drinking water, which is the most recognized and sometimes separately consecrated, and the right to water in its all legitimate uses (recreation etc.). It is about a relatively marginal right, being thus comparable with its precursor, the maritime law, which is a diachronic and autonomous branch, but rather marginalized against the big traditional autonomous branches, such as public law, penal law, civil law and commercial law. However, shipping and maritime law are upgraded due to new maritime routes, particularly the relevant to the melting of Arctic ice. Anyway, like the environmental law which has entered the field of the Constitutional law in France in the current era of 4G rights (Charter for the environment, environmental jurisprudence particularly of the Constitutional Council...), the right to water has recently entered the field of the same branch in many national legal orders, either indirectly (through the jurisprudence, for instance in Greece) or directly (in Tunisia, Slovenia etc.). So, there is a parallel development of the rights to environment and to water, although the first had been consecrated in various European Constitutions already in the 3G era. In a similar way, the right to energy was marginal, almost like the right to water, in that era. If even nowadays the doctrine has the tendency to take an approach to the right to water as a part of the right to (healthy) environment, the right to energy was traditionally considered as a part of the right to development to such a pitch that it is doubtful whether it existed as an autonomous 3G right or not. The similarities between the right to water and the right to energy are so strong that they were incorporated in 1979 in the same archetype international text, the UN "Bill of rights" of women, as for the legal position of rural women.

#### V. CONCLUSIONS: WATER AND ENERGY "RULE OF LAW"

On the one hand, hypothesis of the paper is fully confirmed, given that positive law is relatively poor in terms of recognition of the fundamental right to water. Doctrine and jurisprudence have a significantly favorable attitude on the matter but very few constitutions preview explicitly this right, either in its general version (Tunisia) or in the drinking one (Slovenia). We consider that the need in constitutional consecration is not exhausted through any jurisprudential development in this direction, as it is the case of the Greek legal order. Anyway, we should not overlook the fact that the taste of the water, delivered by systems of water supply, is not pleasant in various regions, not to speak about the growing scarcity of this natural resource. So, not only decision-makers but also citizens should fight for the incorporation of the water right into the constitutions, let alone in its general version, and for its further adequate use, in practice. On the other hand, the right to energy has a common legislative origin with the 3G right to water, within the framework of the general right to enjoy adequate living conditions, which certainly should not be reserved for rural women. This general right can be associated with the "forgotten" (first generation) human right to pursuit of happiness [25]. This right, incorporated into the American "Declaration of Independence", was omitted in the

Constitutions whilst a part of the doctrine has recently recognized it, essentially as a new 4G right [26]. Besides, the right to energy, whose the 4G mainstreaming version is the right to energy efficiency particularly of buildings, has a lot of juridical similarities to the water one.

Finally, the 3G principles of sustainability, exemplified by water, let alone evoked by the Greek language word for water, and of development, resulting from energy, constitute the new constitutional tool of sustainable development [27]. The time for the principle of water and energy "rule of law" has come.

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