

Renewable energy and their environmental impacts in the European Union law

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ABSTRACT

The present work aims to highlight the innovations of the European legislator in the field of renewable energy. The problems of the ongoing environmental crisis, and especially in the war sector, have had as their basis to open the way to new roads through the simplification of bureaucracy of a road of new stages where environmental policy has found ways to improve the life of the European people, face new energy crises in the near future and above all harmonize, integrate energy policy in the European territory as a necessity of the moment.

Keywords: energy crisis, art. 194 TFEU, European Union law, renewable energy, simplification of procedures, energy transition, COP28.

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I. INTRODUCTION

Environmental protection in recent years through a continuous crisis in the energy sector has forced the European Union to follow a more challenging path in the energy sector. Art. 194 TFEU¹ based on the functioning of an internal market that improves the environment and the policy in the energy sector according to the principle of solidarity between states² highlights a sector in continuous evolution that needs legal, economic, political support for more than twenty years now.³

Renewable sources have acquired a European framework, where in recent years recognizes a competence for the Union in the energy sector through a gradual but too slow process. The interventions of the Union in energy matters were based on a general basis of environmental policy that provided in the energy sector the use through art. 191 TFEU of a rational point of analysis and for natural energy resources.

On the one hand, art. 194 TFEU highlights and legitimizes the action of the Union in the field of energy by creating and improving the environment through objectives for the functioning of an internal market in a way that security of supply can be qualified as a promotion which connects energy networks with the development of renewable energy as a response of the Union in the energy protection sector. Energy sources can be found in a guide of a Directive based on the promotion of renewable energy⁴ namely the RED III, “Renewable Energy Directive III” which seeks to disseminate projects concerning the renewable energy sector. A Directive that offers a broad overview of objectives with main activities that highlight the aspects that capture important critical aspects in the energy sector. The new Directive has the obligation through the steps of the past to create a ‘global’ regulatory context on renewable energy as steps forward for greater maturity of use and development in the sector.

The growth of energy from renewable sources has set mandatory objectives from a national point of view as the basis of that foreseen by the Directive RED I of 2009.⁵

¹ HJ. Blanke, S. Mangiamelli, *Treaty on the Functioning of the European Union. A commentary* (Springer 2021); M. Kellerbauer, M. Klamert, J. Tomkin, *Commentary on the European Union treaties and the Charter of fundamental rights* (OUP 2024).

² S. Mayer, ‘Considerations on the Principle of Energy Solidarity in the EU Legal Framework’ (2023) 2 Yearbook of European Union and Comparative Law 231.

³ RJ. Heffron, *Legal aspects of EU Energy Regulation: the consolidation of energy law across Europe* (OUP 2016); K. Huhta, L. Rein, ‘Solidarity in European Union law and its application in the energy sector’ (2023) 72 British Institute of International and Comparative Law 771; S. Romppanen, K. Huhta, ‘The interface between EU climate and energy law’ (2023) 30 Maastricht Journal of European and Comparative Law 45.

⁴ Directive (EU) 2023/2413 of the European Parliament and of the Council of 18 October 2023 amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources and repealing Council Directive (EU) 2015/652 [2023] OJ L2023/2413; K., Talus, F., Gallegos, J., Pinto. ‘Importing US-produced hydrogen and its derivatives into the EU-examples of unnecessary complications, barriers and distinctions’ (2024) Journal of Energy & Natural Resources Law (forthcoming).

⁵ Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC [2009] OJ L140/16.

Particularly, it has responded to the needs of stipulating the Kyoto Protocol for the reduction of greenhouse gas emissions. By 2020, 20% of the Union's gross final consumption is expected to come from renewable sources, establishing a clear legal basis in the field of energy in the Union as a reason for a binding act, namely a Directive based on art. 114 and 191 TFEU.

The crisis emergencies and those that occurred after the Paris climate agreement⁶ have as a consequence the Directive (EU) 2018/2001⁷ (RED II) that brought forward the recast of RED I and the beginning of a binding overall target that respected the achievement of a share of renewable energy for energy consumption that reached 32%. The relative change was relevant for the Directive of 2018 based only on art. 194, par. 2 TFEU as a legal basis that proposed measures for the development of renewable energy thus excluding environmental protection. But hasn't renewable energy started to be used to protect human life and dignity to a healthy environment?

II. THE DIRECTIVE (EU) 2023/2413

The need to review and regulate renewable energy, through RED III, was a reality that found its basis with the recommendation of the European Commission of September 2021⁸ arriving after the proposal of Directive of 18 May 2022.⁹

It was an important building block for its energy policy. RED III had three bases namely art. 114 TFEU concerning the approximation of laws, art. 194, par. 2 TFEU which allowed the adoption of measures for the development in the renewable energy sector and art. 192, par. 1 TFEU a legal basis which modified the application of an *acquis* of the Union in the field of the environment within a well-regulated framework and provided by the Union through new instruments.¹⁰

The new Directive has set as objectives, on a large scale, the need to create a precise and more harmonized discipline to make energy efficiency work in the internal market, accelerate renewable energy reducing thus greenhouse gas emissions by having a more autonomous energy system, independent and at the same time suitable for the environmental needs of the member states of the Union and not only. The Directive has followed and attempted according to the European legislator to give greater importance to energy policy through renewable energy sources at a time when the energy sector has

⁶ D. Bodansky, 'The Paris Climate Change Agreement: A New Hope?' (2016) 110 American Journal of International Law 288; M. Doelle, 'The Paris Agreement: Historic Breakthrough or High Stakes Experiment?' (2016) 6 Climate Law 3.

⁷ A. Caramizaru, A. Uihlein, *Energy communities: an overview of energy and social innovation* (Publication Office of the European Union 2020).

⁸ Commission Recommendation (EU) 2021/1749 of 28 September 2021 on energy efficiency first: from principles to practice – guidelines and examples for implementation in decision-making in the energy sector and beyond [2021] OJ L350/9.

⁹ Commission, 'Proposal for a Directive of the European Parliament and of the Council amending Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources, Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency' COM (2022) 222 final.

¹⁰ *ibid*, para. 4.

had a contribution of 75% of total greenhouse gas emissions of the Union.¹¹ In this sense, the RED III has set a target that produced a general principle for the member states that collectively provide a share of energy for renewable sources with a final consumption by 2030 that will reach a figure of 42.5%.¹² A percentage of 2.5% for the member states as an attempt to further increase to reach 45% is a reality but not binding because it remains only at 42.5% and the Union thus evaluates and controls the possibility of anticipating, increasing the share of renewable energy.

The objectives of the Directive include provisions that also concern the transport sector where the contribution of reducing greenhouse gas emissions was a challenge, according to art. 25 of the RED III Directive, which required suppliers to ensure a share for renewable energy in final consumption in the sector now equal to a percentage that reached 29% by 2030.¹³ Maritime and air transport were part of the decarbonization sectors¹⁴ where through two Regulations, the first based on ReFuelEU Aviation¹⁵, that tried to reduce carbon emission in the aviation sector and create a sustainable air transport for the Union on an equal footing. The Regulation, in such a way, has tried to avoid fragmenting the market in the air transport sector of the Union by establishing uniform rules that achieve the objectives of the RED directives.¹⁶

The second Regulation was named FuelEU Maritime.¹⁷ It laid the foundations for a reduction of greenhouse gases in maritime transport with objectives that reached 80% by 2050 compared to those levels calculable by 2020. These in a general way spoke for a diffusion of renewable fuels for a market for maritime use.¹⁸ The changes brought have inserted binding objectives in the heating sector as well as in cooling by 2030 as the share of renewable energy reached a figure of 49% for buildings and will be increased in a binding way at national level.¹⁹ As far as buildings were concerned, the Directive underlined that they had the potential to contribute to reducing greenhouse gas emissions in the Union also following an important step based on climate neutrality.²⁰

¹¹ Directive (EU) 2023/2413 of the European Parliament and of the Council, recital n. 2.

¹² *ibid*, art. 3.

¹³ *ibid*, art. 25. Note the increase in the target of 14% that was foreseen by the RED II which respected the 10% of the RED I Directive.

¹⁴ K. Talus, R. Maddahi, 'Carbon capture and utilization under EU law: impermanent storage of CO₂ in products and pre-combustion carbon capture' (2024) 17 *The Journal of World Energy Law & Business* 14.

¹⁵ Regulation (EU) 2023/2405 of the European Parliament and of the Council of 18 October 2023 on ensuring a level playing field for sustainable aviation (ReFuelEU Aviation) [2023] OJL 2023/2405.

¹⁶ *ibid*, recital n. 14.

¹⁷ Regulation (EU) 2023/1805 of the European Parliament and of the Council of 13 September 2023 on the use of low-carbon and renewable fuels in maritime transport and amending Directive 2009/16/EC [2023] OJL 234/48.

¹⁸ Regulation (EU) 2023/2405 of the European Parliament and of the Council, recital n. 5.

¹⁹ Directive (EU) 2023/2413 of the European Parliament and of the Council, recital n. 65.

²⁰ *ibid*, recital n. 17.

III. HAS DIRECTIVE RED III BROUGHT ANY NEWS?

The question is whether Directive RED, which certainly put a first step forward towards harmonization in the renewable energy sector, has brought news from the past and made progress towards new targets without losing what the same review that was concluded by the legislator offers? In this way, a new system for renewable sources is promoted, thus introducing tools that some will still have to be given our attention and technical and scientific scrutiny.

The Union has tried to avoid administrative complexities for the approval of new projects related to renewable sources as the main challenges that thus hindered investments, renewable energy projects and those related to the procedures for relaunching the related authorizations. The competent authorities issue the authorizations trying to screen the execution and management of projects as the beginning of rules that obtained unnecessary administrative burdens such as a wide public acceptance for the diffusion of renewable energy.²¹

In particular, the areas that will have to be renewable in an accelerated manner as a project of individual countries will have to benefit from the absence of significant effects on the environment. The projects are exempt from the obligation to conduct a precise assessment for environmental impact. The strategic environmental assessment also includes precise limits thus evaluating the impact of each individual project where the abolition of an environmental impact assessment generates negative repercussions in terms that protect the main needs that are linked to the protection of the environment that protects pollution. The risk that favors energy interests are connected to are linked to the plants that create interaction needs and not environmental ones. The new directive thus considers the impact on the soil of a landscape avoiding using other agricultural territories by installing photovoltaic systems. The RED III focused on opportunities to promote renewable energy in industrial areas, imposing effective constraints as a programming method that accomplishes in a prevalent manner a certain sensitivity at regional level. Thus, precise obligations are foreseen which limit the discretion of domestic authorities with reference to landscape areas and/or for agricultural purposes for uses which perhaps in the past these territories were uses and abuses without any precise control.

The respect of the precise needs for each member state, after the RED revision, has shown a suitable path, for all member states to carry out in a coordinated manner and in the European territory the specific areas of land, sea and internal waters as areas that can be based, develop renewable energy. The areas have taken into account the availability for energy of renewable sources that have offered to different areas the relative production of renewable energy in various types according to the technology offered. In the areas the member states have avoided developing projects in protected areas have taken into account projects and appropriate measures for the establishment and evolution of renewable energy.²²

National authorities of member states have ensured that the authorizations to build

²¹ *ibid*, recital n. 20.

²² *ibid*, recital n. 26.

new renewable plants as identified zones, according to art. 16bis of Directive RED III, cannot be used a time frame that exceeds twelve months to give the relative authorization in the matter of renewable energy. Thus the projects and the authorization procedure does not last for more than two years where with a justified manner the circumstances for the Member States are the same and/or change at a term of about six months where the project also deserves to justify the extension for the relative project. The zones need research to be screened, organized and managed to put renewable energies in the procedural process that will be about two years in time and can be extended up to three years when talking about offshore projects.²³

Offshore renewable energy projects, through the authorization procedures, expire within two years. This justifies the extraordinary circumstances for the member states that extend the deadlines within six months for the project developer according to the exceptional circumstances that can justify the relative extension. For renewable energy projects, which are outside the acceleration zones for renewable energy, the member states have provided for the authorization procedure that does not last more than two years. Thus the offshore renewable energy projects and the authorization procedure does not last more than three years. It is noted that the new directive thus expresses and refers to silent assent, as a blank *cheque* for investments that are approved by opposition noted in the administrative sphere, showing the simplification and deregulation of authorization procedure that build renewable energy plants which are necessary but not excessive to an overall picture of the administrative process of those interested.

IV. TOWARDS THE CREATION OF RENEVEWABLE ENERY COMMUNITIES

The new stages of renewable energy have resulted in the creation of self-consumption of renewable energy through the formation of Renewable Energy Communities (CER) that are inspired by the old Directive 2018/2001. A Directive that highlighted elements of innovation for tools that actively encouraged sustainable development and increased the share of energy for renewable sources. The member states have thus guaranteed consumers to condition self-consumers of renewable energy allowing a self-production at charges that have had disproportionate activity and did not constitute professional commercial activity.²⁴

In particular, the RED II took into consideration the group that was part of two self-consumers that acted in a collective manner, i.e. a condition that was in the same building and/or condominium. Art. 22 of the directive that referred to the CER divides energy in a way that recognizes autonomous legal entities as true voluntary entities, i.e. as shareholders or members of local authorities, administrative and/or natural persons that are located near the plants that produce energy from renewable sources.²⁵ The objectives for legal entities are: “(...) environmental, economic or social benefits at community level to its shareholders or members or to the local areas in which it operates, rather than financial profits (...)”.²⁶ The involvement of private entities as well

²³ *ibid*, art. 16.

²⁴ *ibid*, art. 2.

²⁵ A. Bolle, ‘How Cities Can Back Renewable Energy Communities: Guidelines For Local And Regional Policy Makers’ (Energy Cities, 2019) <https://energy-cities.eu/wp-content/uploads/2019/06/EnergyCities_RNP_Guidebook_Web.pdf> accessed 11 September 2024.

²⁶ Directive (EU) 2023/2413 of the European Parliament and of the Council, art. 2, para. 1, n.

as local authorities as consumers and producers forms a fixed point of evolution for the promotion of energy sources within the Union. The institutions of the Union have adopted the Directive trying to bring more confidence and at the same time to confirm the provisions that they introduced according to art. 22bis the use in the industrial sector thus reinvigorating an energy sector that distributed in a hierarchical way.

The stages are important but not yet at such a decisive level of the situation. On the one hand, we have the confirmation of a constant commitment on the part of the Union to collect and provide decisively new provisions of a binding nature. On the other hand, we have the member states of the union that promote through the Directive the administrative and regulatory support measures in the decarbonization sector that can lead to benefits, advantages for businesses and citizens. We need time at the national level for the matter of renewable energy sources to see the results. They have also put a base in the European Commission on 22 November 2023 in order to supporting the CER to exploit renewable energy and also expansively promote those that already existed.

The measures that we must take into consideration have to do with the incentive tariff for renewable energy that produces and recognizes the CER as a collective, individual self-consumption system for renewable energy, a contribution aimed at European territories, i.e. the European regions that will have to invest in a proper way to put in order and build a powerful and existing plant. Especially, it has based itself on art. 107, par. 3, lett. c) TFEU thus allowing member states that supported the development of economic activities not to alter the conditions for exchanges to an extent contrary to their own interest. This is how the compatibility with the support for an internal market is assessed. The European Commission has tried to carry forward the development of economic activities of renewable energy with a necessary, adequate way between environmental objectives at national level of a proportional type that corresponds to the relative financing needs that protects the aid. This is a necessary step where renewable energy plants have positive effects on the environment in a competitive manner through trade at national, European and third country level.

State aid, competition and the principle of proportionality put together the basis through the European Commission for the rules of the Union that are oriented towards a strategy that is connected with the Green Deal.²⁷ This is a system that allows to give answers to the possibilities that thus create a more healthy and livable environment for European citizens in the energy sector and to the territories that will be the future protagonists for the coming years of renewable energy in the European context.

V. WHAT PROBLEMS ARE NOTED BETWEEN RENEWABLE ENERGY AND ENVIRONMENTAL PROTECTION?

From the previous paragraphs we have seen the innovations introduced as well as the problems regarding a new regulation, where from the administrative point of view, it has allowed the consent through authorizations that can be translated into a capacity in time where the advantages of work are many from the point of view of new hands of

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²⁷ Commission, 'The European Green Deal' (Communication) COM (2019) 640 final.

workers but also negative for a final result in connection with the problems that can be created for the protection of the environment.

There are many legal interests related to the construction of plants where environmental needs are created. The legislator of the Union promotes renewable energy related to the protection of the environment, of the areas that are involved in new power plants that produce renewable energy.

The RED III has included: “(...) case-by-case assessments to ascertain whether a renewable energy production plant and the connection of such a plant to the grid (...) of overriding public interest in a given case. Member States should consider such renewable energy production plants and the related infrastructure to be of overriding public interest and of interest to public health and safety (...) clear evidence that such projects have significant adverse effects on the environment that cannot be mitigated or compensated, or if Member States decide to limit the application of this presumption in specific and duly justified circumstances, such as reasons relating to national defence (...)”²⁸. Energy interests are linked to plants that are discussed with environmental needs. This is a system that defines the public interest from the past in a prevailing way and is connected to a need that is relevant and represents a strong element where there is doubt about a combination, a balance with climate needs.

Increasing, managing the development of renewable energy independently of the protection of the territory function in a context that are expanded energy communities that interfere with the dynamics of a consumption of the territory, and they are located and that conduct their work. The lack of an evaluation of a plant on the European territory prevents some agricultural territories from installing photovoltaic. Thus, the RED III is limited to an effective industrial zone without setting constraints. Art. 15 quarter have ordered the competent authorities to give priority to artificial surfaces to build roofs, facades of buildings, transport infrastructures, parking lots, waste disposal, industrial sites, lakes, artificial basins, sites for urban waters as lands that are not used for agricultural activities.

The programming methods carried out depend mainly on the sensitivity of individual member states and local authorities where specific obligations are left at the discretion of the national authorities of certain particular areas that await the relevant revision of the legislation to close the mistakes of the past and move forward with regard to the evolution of renewable energy.

VI. CONCLUSIONS

Renewable energy is a response to the ongoing crises that are not yet over. International political aspirations have had within a general geopolitical context to elevate energy policy to a necessity that improves and increases the energy from renewable sources of the Union, as a goal of an autonomous and independent energy system.²⁹

Directive RED III has set a binding framework in the revision of climate rules at global

²⁸ Directive (EU) 2023/2413 of the European Parliament and of the Council, recital n. 44 and art. 16.

²⁹ COM (2022) 222 final.

level, following for this purpose also the United Nations Conference on Climate Change (COP28) held by 27 member states from 30 November to 13 December 2023 in Dubai to protect in the international arena the general spirit based on the UN Framework Convention on Climate Change. COP28 in Dubai and art. 28, letter d) have foreseen the relative transition of fossil fuels into the renewable energy system in a precise, equitable manner accelerating and reaching a total level of zero by 2050. However, these are objectives of the past that are not maintained for many years.

The Union has tried, in a fast way, to respect the commitments to reduce emissions and take another step forward to a sustainable future necessary for energy objectives. An energy challenge has been taken into consideration especially after the Ukrainian crisis with consequences for energy supply. Thus, a new European energy geopolitics is born towards a transition that achieves independence from fossil fuels in the European territory. The challenge is still at the domestic level that should in a fast, precise and effective way provide steps forward to overcome traditional fossil fuels. Of course, political sensitivity is not lacking but it is necessary that consumers will have to acquire greater awareness for the choice and purchase of means of transport.

The final result and goal is, in a radical way, to follow the elimination in rapid times of the use of energy sources thus formulating a transition of fossil fuels (transitioning away) through decisive actions by the member states. The relative fund for losses and damages from disasters that come from climate is based within this framework. Thus, the financing for vulnerable communities and developing countries seeks to reduce the impact of climate disasters. The critical areas are many and the new Directive thus represents a step forward towards objectives that depend on the member states and to measures to be adopted and followed at a global level. It is a step forward based on RED III. Necessarily all the member states of the Union in the coming years will follow and conclude renewable energy paths as positive assumptions that favorably carry forward the reduction and simplification of bureaucracy thus decreasing the authorization processes at a European level.