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Renewable energy sources: the conflict between environment and landscape from a planning perspective

Francesca Romana D'Amico

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Il contributo si propone di analizzare la relazione tra ambiente e paesaggio per quanto riguarda l'ubicazione delle fonti energetiche rinnovabili e tenta di dimostrare il ruolo svolto dalla pianificazione urbana nelle scelte di insediamento degli impianti. Successivamente, vengono esaminati lo scenario italiano e la legislazione europea. Gli impianti vengono esaminati come possibile soluzione al conflitto tra ambiente e paesaggio.

The paper aims at analysing the relationship between environment and landscape regarding the siting of renewable energy sources. The contribution attempts to demonstrate the role of urban planning in energy plant settlement choices. The Italian scenario and European legislation are examined. Agrivoltaic plants are examined as a possible solution to the conflict between the environment and the landscape.

Summary: 1. Introduction.- 2. The placement of renewable energy plants: why is it an urban planning issue?- 3. The European legal framework for renewable energy sources.- 4. The placement of renewable energy sources as a planning issue.- 4.1 The European perspective.- 4.2 The Italian case.- 5. The innovations of the agrivoltaic plants.- 6. Conclusions.

1. Introduction

This paper aims at investigating the relationship between environment and landscape in terms of the implementation of renewable energy sources.

The objective of the paper is to demonstrate the centrality of urban planning with respect to the issue of the implementation of renewable energy sources. To this end, a comparative analysis will be carried out between the European regulations and the Italian law on this matter.

Although, historically, planning has been considered far from the influence of European law, the European dimension is increasingly prominent in urban planning forecasts ^[1]. Indeed, considering that environmental law and planning law are linked, since one of the main focuses of good planning is how it preserves the environment ^[2], however difficult their relationship may sometimes be, it is not unexpected that planning law is increasingly shaped by European environmental law ^[3].

In the current context of development and centrality of environmental protection, the implementation of renewable energies, as a functional tool for achieving national and European climate objectives and realising a sustainable energy system, has repeatedly clashed with landscape protection.

On this regard, the focus will be on the typology of agrivoltaic systems, which combine the photovoltaic structure with the agricultural use of the land, managing to avoid land consumption.

It should be noted that the landscape and its cultural dimensions ^[4] have constituted, and still constitute, one of the most complex obstacles to the location of RES plants. The intention of this text is to underline how, as a result of an ever more present climate change, it is necessary to operate an equal balance between environmental and landscape interests, and that urban planning tools are the most suitable ways to achieve this.

2. The placement of renewable energy plants: why is it an urban planning issue?

From a historical perspective, energy transitions can be defined as epochal events. Think of the transition from wood to coal in the 19th century, and from coal to

oil in the 20th century. Today, we are getting closer and closer to a change of pace; renewable sources are not satisfying whole energy needs, but are helping to establish a new model of electricity production. In the context of the ongoing energy transition, there is a need for public intervention to ensure that the environmental objectives of the new energy strategies are met at European level and for individual member states ^[8].

The concept of energy transition is crucial in the fundamental paradigm shift in society prescribed by the Paris Agreement ^[6], with local, regional, national and global implications for the overall goal of drastically reducing greenhouse gas emissions. The energy sector, as one of the most important contributors to global climate change, is among the most significant areas for action. In these terms, the actual energy transition is not only essential for social and economic functionality and stability, but is also intimately linked to everyday life ^[7].

The development of renewable energy is among the seventeen goals of the 2030 Agenda on Sustainable Development ^[8], in which the values of development and the environment seem to converge; once the present phase of mere contraposition will be overcome, a new phase based on their composition will arrive.

This objective has been further strengthened by the general principle of integration in Article 7 TFEU, which states that the Union shall ensure consistency between its policies and activities, taking into account all its objectives and in accordance with the principle of conferred powers. This principle is found in some secondary legislations, such as those establishing the strategies related to the promotion of the use of energy from renewable sources ^[9]. Already the European Court of Justice, Judgment 13 March 2001, C-379/98 ^[10], clarified the link between renewable energy sources and the environment, as these contribute to the reduction of greenhouse gases.

The problem is that landscape and its cultural dimensions are one of the most complex obstacles to the location of RES plants: the protection of the landscape is configured within a set of interests that belong to the cultural sphere since they relate to the area of man's spiritual activities, as recognised by careful case law ^[11]. In fact, the European Landscape Convention already states for the countries taking part to the convention (art. 5, lett. a) «*to recognise landscapes in law as an essential component of people's surroundings, an expression of the diversity of their*

shared cultural and natural heritage, and a foundation of their identity»^[12] .

It is widespread in academic literature, not just legal literature, the idea that socio-cultural, legal, aesthetic and ethical considerations should be added to economic and environmental assessments when the goal is to achieve integrated sustainable development. There are several possible tools for urban sustainability that take this perspective into account^[13] , addressing it as a multi-criteria decision^[14] . One of the characteristics of ecological transformation is multi-level governance, since many different actors have become essential. Among the so-called “non-state” actors, cities gain influence for many reasons: their proximity to territorial issues, their possibility to capture and demonstrate the concrete results of their efforts on local topics, such as housing conditions, mobility and public procurement, and above all the damages they have experienced and will experience as a result of climate change such as floods, heat waves, and water shortages^[15] .

In these terms, the placement of renewable energy plants arises as an urban planning issue. It is necessary to use planning tools, but above all to think in a planning perspective, in order to realise an effective location of the plants, that takes into account the possible contraposition between environmental and landscape interests^[16] , as well as the contraposition between local communities and higher legislators^[17] . It is important to stress that environment and landscape are embodied in the same physical dimension, that one of the territory, the site of a multiplicity of conflicting interests and different uses.

In order to solve the conflict between environment and landscape, the hierarchical perspective alone emerges as insufficient^[18] . It is necessary an integration of interests that can be implemented through co-planning and negotiation techniques, that is by realising a balancing of interests, based not on the superiority of the administration that holds the interest, but on the cogency of logical arguments. This point was introduced into the planning process through the Strategic Environmental Assessment (SEA)^[19] .

3. The European legal framework for renewable energy sources

In recent times, the pressure towards the development of renewable energy sources is set in the context of the ongoing energy crisis, which has put the issue

of energy supply at the centre^[20]. Therefore, the ongoing energy transition has entailed numerous changes in the supranational institutional architecture^[21]. Exceptionally high energy prices threaten the affordability of energy supplies, exposing the most fragile consumers to energy poverty^[22].

Because of the economic and geopolitical shock, the European Commission has provided guidance to member states on measures to protect their consumers, while attempting to limit distortions in the EU energy market. Thus, the energy market management, in contrast with other sectors, provides an example of integration inside the EU and it is an example for other countries seeking to benefit from similar synergies^[23].

The official recognition of the EU competence in energy matters, albeit shared with that one of the member states, is the final step in a long journey starting with the Maastricht Treaty, which already included among the competencies devolved to the Community that one about "energy measures"^[24].

This tension between the need to collaborate in order to achieve the Union's energy goals, even to confront the climate crisis, on the one hand, and the reluctance of Member States to empower the European level, on the other, has been one of the crucial element in the development of renewable energy sources^[25].

After Maastricht, the development of renewable sources of energy is the object of different acts of soft law from the end of XX century. The first directive^[26] set targets by 2010. The goal is to focus on the commitments arising from the Kyoto Protocol. For the first time, streamlined authorisation procedures for the location of plants are envisaged^[27]. In this context, there is also the transition from the use of non-binding documents that identified the European orientation to the development of specific regulation in this area with a binding character.

Subsequently, Directive 2009/28/EC (so-called RED I, "Renewable Energy Directive I") marked a paradigm shift and inaugurated "the second generation"^[28] of directives, while defining renewable energy^[29]. This directive, as part of the more general "20-20-20 Climate-Energy Package", stipulated that the contribution of renewable energy sources must reach 20 per cent of the total, that energy efficiency is to be improved by 20 per cent and that greenhouse gases are to be reduced by 20 per cent. National governments are responsible for the removal of barriers to the large-scale use of renewable energy, e.g. in grid access

design, congestion management, balancing markets, but most importantly in planning regimes and administrative processes^[30]. All actions require a commitment from national administrations to ensure their achievement^[31].

In more recent times, the centrality of the European Union in establishing policies promoting renewable energy sources has been reaffirmed in other acts aimed at implementing the deployment of RES installations such as Directive 2018/2011/EU (so-called RED II, “Renewable Energy Directive II”). This act was adopted as part of the “Clean energy for all Europeans’ package”^[32].

The legislation about environmental protection has accelerated significantly in recent years. The European Green Deal^[33] and the European Climate Law^[34] explicitly set the goal of EU climate neutrality by 2050^[35]. This led to a major evolution in the action of public authorities, which had to take into account the emergency dimension of the issue of protection and come to terms with unexpected instruments, such as “climate litigation”^[36].

An important change of approach was also brought about by the establishment of the Next Generation EU^[37], the plan to ensure European recovery after the Covid-19 pandemic^[38]. In this scenario, ecological policies have become a fundamental tool for the development of society as a whole, even going beyond the logic of sustainable development^[39], until the approval of the “Fit for 55” package in 2021^[40], which set the target of reducing carbon dioxide emissions by 2030 to 55 per cent of 1990 levels.

Thus, the principle of maximum deployment of renewable energy emerges from the European legal framework^[41].

The above mentioned energy crisis has brought the challenge of energy transition back to the centre of the energy debate^[42]: the REPowerEU plan^[43] was approved with the aim of reducing dependence on Russian gas by two-thirds^[44]. The plan is complemented by the EU Solar Energy Strategy^[45]. For the first time, this strategy makes it explicit the need for member states to identify “go-to areas”, i.e. areas suitable for hosting renewable energy installations where it will be possible to use simplified authorised procedures. In the general phase of ecological transition, the release of Regulation 2022/2577/EU^[46], which establishes a framework to accelerate the deployment of renewable energies, is part of the process.

In particular, one of the temporary measures provided introduces a relative presumption, whereby projects for the installation of renewable energy sources

are considered to be of overriding public interest^[47] and of concern for public health and safety, unless there is clear evidence of serious adverse effects on the environment. Member States may also apply this presumption in the regulation about landscape^[48]. Regulation allows Member States, under certain conditions, to ensure environmental objectives, by introducing exemptions from certain environmental evaluation requirements laid down in Union ecological legislation for renewable energy projects^[49]. This act provides Member States with an effective tool to accelerate the deployment of renewable energy with related infrastructure projects, ensuring a balance between the need to deploy renewables at a much faster pace and the need to protect environmentally sensitive areas; in particular, the environmental integrity of the “Natura 2000”^[50] sites is preserved. In addition, the rule introduces time limits to the duration of the authorised procedure for the installation of solar power plants^[51] and the adoption of significant silence procedures for plants with a capacity of less than 50 kW^[52].

This is because the principle of energy solidarity, as recalled by the CJEU, judgment 15 July 2021, C-848/19, has returned central^[53]. The European Court of Justice confirmed that energy solidarity is a justiciable principle of primary EU law, with far-reaching consequences for EU energy and climate law^[54]; in fact, an increase in the deployment of renewable energy sources in one Member State would affect the other Member States as a great renewable energy capacity of one Member State will affect the overall reduction in gas demand throughout the EU^[55]. As a matter of fact, Reg. 2022/2577 itself recalls art. 122 TFEU, about the spirit of solidarity between Member States, in the consideration of an urgent action in energy areas^[56].

4. The placement of renewable energy sources as a planning issue

This article compares different aspects of renewable energy law in the European perspective and in Italy, including the way in which RES plants are established. The use of comparative law provides us with an insight into the form and formation of parallel legal institutions. As a legal research method, it can facilitate the analysis of legal problems common to several jurisdictions: legislators and

courts look to other jurisdictions at least for inspiration in an attempt to improve responses to common problems^[57]. The European renewable energy regulatory framework was chosen for comparison with the equivalent framework in Italy for a number of reasons. Among these, although the two jurisdictions have elements in common, as well as to some degree a hierarchical relationship, the use of different mechanisms for balancing interests contributes to a better appreciation of the complexity of the renewables issue.

4.1 The European perspective

With regard to the perspective of urban planning analysis, the ongoing energy transition towards renewable energies entails a drastic change in planning tools. In European countries, in the existing regulatory and administrative framework of the electricity sector, there is an industrial structure based predominantly on a small number of large plants. In fact, administrations are used to dealing with a few very powerful companies. This perspective is reversed in the new renewable energy regulatory framework. Renewable energy plants that produce green electricity are smaller, dispersed and growing in number (small hydropower plants, solar or wind power plants). But the introduction of these plants bring to drastic changes in approval procedures and requirements that may be an obstacle especially for small and medium-sized companies^[58]. It also entails unprecedented problems such as the connection to existing electricity grids with technically feasible conditions and at reasonable costs^[59].

In order to delve into the settlement of renewable energy sources and to analyse the points of contact with planning regulations, it is necessary to start from the analysis of Directive 2018/2001/EU (so-called RED II), which, in Article 15, par. 7, introduces the concept of “suitable areas”, stating that *«Member States shall carry out an assessment of their potential of energy from renewable sources and of the use of waste heat and cold in the heating and cooling sector. That assessment shall, where appropriate, include spatial analysis of areas suitable for low-ecological-risk deployment and the potential for small-scale household projects and shall be included in the second comprehensive assessment»*.

Even if in the literal dimension of the European rule of 2018 the identification of suitable areas is only functional to the assessment of the overall energy potential

from RES of each individual state, some member states, in particular Italy, have provided a facilitated authorisation scheme on this regard.

Such provisions by member states paved the way for amendments to the directive in question, leading to the approval of Directive 2023/2413/EU.

The most recent Directive 2023/2413/EU, later RED III directive, in fact returns to these issues. In particular, the new regulation was born out of a twofold need: first, to help the Union meet its emission reduction commitments with a view to sustainable development. Secondly, it was necessary to revise the regulation in light of the new energy challenge posed by the outbreak of the war in Ukraine. In the directive, the target for the consumption of energy from renewable sources is raised to 42.5%, by 2030^[61].

The novelty on which this work will focus most, and which has the greatest impact in the planning sphere, concerns the objective of simplifying procedures for the approval of renewable energy projects. The areas chosen for the installation can be defined as homogeneous areas, on land or sea, where the deployment of renewable energy plants, of one or more types, is not expected to have significant environmental impacts. The directive calls on Member States to designate in advance specific areas as “renewable energy acceleration zones”, which can be identified after mapping. These zones should be particularly appropriate for the development of renewable energy projects, distinguishing between different types of technology, considering that the deployment of the specific type of renewable energy should not lead to significant environmental impacts. Nevertheless, when designating these areas, Member States should avoid conservation areas and consider restoration plans and suitable mitigation measures^[61]. After identifying these reference areas, Member States should be able to prepare a plan for all renewable energy acceleration zones, and each plan should be subject to an environmental evaluation. Thus, there seems to be an obligation on Member States to use planning instruments to identify areas where RES installations are to be located.

The paper proceeds to assess the problematic profiles of the changes introduced by the latest RED III framework in the renewable energy sector. Decarbonization, and therefore the principle of wider diffusion of renewable energy sources, have acquired such centrality as to determine what is defined by some as an implicit hierarchisation with respect to landscape instances^[62].

Firstly, the mapping required from States for the definition of the acceleration zones imposes particularly fast timeframes, thus leading to difficulties on the yield. Secondly, within these “renewable acceleration zones”, all renewable energy projects should benefit from the presumption of no significant environmental effects. It can be deduced, therefore, that by combining the *ex lege* abolition of the environmental impact evaluation on the individual project with the general time compression, there is a risk of generating negative repercussions in terms of landscape protection, also undermining the main requirements related to environmental preservation. The risk is that, by favouring energy interests linked to the construction of plants, a conflict may be created with interests of a different nature, such as the landscape. In fact, in the new directive there is no requirement to consider the impact that certain installations could have on the soil and/or landscape, in order to avoid using some territories to install photovoltaic plants. The RED III therefore limits itself to recommending that priority should be given to industrial areas when mapping, but without setting any actual constraints.

Although the designation of “renewable energy acceleration areas” may be feasible in some Member States, the modalities and scale need to be further investigated. Furthermore, the larger the scale of the “go-to areas”, the more uncertainties will remain about the strategic environmental assessment with respect to the lack of specific details on potential projects.

It is important to emphasise that the obligation to establish appropriate environmental mitigation measures may entail the removal of important landscape structures, such as hedgerow rows or small woods, which may not in themselves be strictly protected by national or EU legislation.

On the issue of the siting of renewable energy installations related to species protection^[63], the European Court of Justice has ruled in judgment of 21 July 2011, C-2/10. The dispute concerned the denial of the no-impediment to situating wind farms on land that is part of an important park of Natura 2000 sites. The judges conclude that a Member State may adopt rules that are more restrictive than those properly provided for in the Birds^[64] or Habitats Directives^[65], thus adopting additional protective rules after notifying to the European Commission. Accordingly, the Court holds that the prohibition laid down by that law, which prohibits the installation of wind turbines not intended for self-

consumption in sites forming part of the Natura 2000 European ecological network, without carrying out any prior assessment of the environmental impact of the project on the specific site concerned, is not contrary to European Union law, provided that the principles of non-discrimination and proportionality are respected.

4.2 The Italian case

After analysing the European regulations in the field of renewable energies and the norms provided for how RES plants are to be located, the Italian legislation is examined^[66]: it is considered particularly relevant among the Member States as it has anticipated certain aspects of the regulations on the plants placements.

The interventionist line adopted by the EU in the field of energy, especially the obligation for member states to adopt by 21 February 2026 plans identifying renewables acceleration areas, has immediate repercussions on the administrative systems of the Member States, with respect to aspects of the discretionary power of administrations, the graduation of sensitive interests among which environment and landscape, planning procedures, and finally the role of simplification and of the adjudicator.

In the Italian context, domestic doctrine is not convinced by the European Council's reminder of the overriding public interest referring to the planning, authorization and implementation of renewable plants^[67]. With respect to the conflict between environment and landscape, case law, for a long time, emphasised the prevalence of landscape protection under Article 9 of the Italian Constitution^[68]. At the same time, the single authorisation instrument, which will be explored in more detail below, appears to demonstrate a favour towards renewable energy production^[69], even if some regulations seem to refer to the primacy of the regulation on the protection of the landscape and historical-artistic heritage^[70].

Notwithstanding these considerations, one must point out a regulatory trend that goes in the same European direction. Mention should be made of the National Integrated Energy and Climate Plan (PNIEC)^[71] and the National Plan for Recovery and Resilience (PNRR)^[72], which contemplates to increase the share of energy produced from renewable energy sources.

With respect to domestic issues concerning the increase of renewable energy sources, a first problem is to be found in the fragmentation of the constitutional discipline, defined as chaotic and contradictory. After the constitutional reform of 2001, «*the activity of national energy production, transport and distribution*» is included among the «*competing competences*» of the art. 117 paragraph 3 Cost., thus leaving to the Regions the role of implementation and the identification of general principles in the hands of the State. On this regard, it is worth noting a series of rulings by the Constitutional Court^[73], in which various regional provisions were declared to be in conflict with the fundamental principles that define the division of competences between the State and the Regions^[74]. With respect to energy management, other matters of state legislative competence are also referred to «*the State's relations with the European Union*» (art. 117, paragraph 2, lett. a), the definition of the essential levels of services concerning civil and social rights that must be guaranteed throughout the national territory (art. 117, paragraph 2, lett. m), the protection of the environment and the ecosystem, the protection of competition and free economic initiative.

Proceeding with a chronological analysis, we note that the domestic legislation of 2003, legislative decree no. 387/2003, implementing European Directive 2001/77/EC had foreseen the effects on the urban planning dimension. In fact, the Italian legislature decided to introduce a single authorization model ruled by Article 12 of legislative decree no. 387/2003^[75]. The single authorization, based on the criteria of rationalization and simplification, is issued following a single procedure in which all the Administrations concerned participate. Its issuance constitutes a title for the purposes of plant construction and must take into account the regulations governing the subject of environmental protection, landscape and historical-artistic heritage. Moreover, the decree links the issuance of the unique authorisation to the automatic declaration of public utility of the works to be carried out^[76].

In addition, the legislature adopted the “Guidelines for the Authorization of Plants Powered by Renewable Sources”^[77] to reserve for the regions the task of providing limitations and prohibitions for the installation of RES plants, the so-called unsuitable areas.

The issue of the siting of renewable energy plants is posed by the Guidelines in terms of overriding public interest, as defined by European sources.

In the perspective of the application of this principle, the objective of contrasting climate change, through the settlement of renewable energy plants, is so high a priority that the regions are only allowed to choose “unsuitable” areas on the basis of the criteria identified in the guidelines.

Subsequently, the regulations were supplemented following European indications, in particular Directive 2018/2001/EU (so-called RED II).

Legislative decree no. 199/2021 (the so-called RED II Decree), with Article 20, modifies the authorisation regulations, adopting a new model based on the prior identification through ministerial decrees of the areas suitable for the settlement of RES. It also establishes that, on the basis of the ministerial decrees, the Regions must provide the concrete identification of the suitable areas within 180 days. In the case of non-adoption, as was the practice in the majority of the situations, the State's substitutive powers is applied, pursuant to Article 441, Law no. 234/2012.

It should be emphasised that the rules aimed at positively identifying “suitable areas” in the Italian legislation with decree no. 199/2021, while in line with the European principle of maximum deployment of renewable energy sources, does not follow the corresponding European RED II Directive (2018/2011/EU). In fact, the directive, although referring to “suitable areas” in Article 15(7), considers them purely functional for the Member State's assessment of energy potential. The Italian regulation, instead, introduces a change of perspective: from a regulation aimed at identifying “non eligible” areas to one instead based on the determination of eligible areas. Thus, an inversion between exception and rule is realised^[78], using a more promotional mode of the plants also affirmed by the need to guarantee the achievement of the power of the plants set in the PNIEC. In these terms, therefore, the Italian regulation anticipated the European one, which then placed the issue of identifying suitable areas for the installation of RES plants in the RED III directive.

On this point, the most recent constitutional jurisprudence has emphasised the impossibility of the regions to suspend authorisation procedures due to additional constraints with respect to state regulations and has highlighted that the regions lack the power to *«autonomously provide for the identification of criteria for the correct integration of plants fuelled by alternative energy sources in the landscape»*^[79].

On the authorisation level, Article 22 of decree no. 199/2021 introduces simplified authorisation procedures^[80]. In fact, for installations on suitable areas, the competent landscape authority will issue a mandatory but non-binding opinion.

The most recent measure on the subject, the so-called “Eligible Areas” Decree, is adopted by the Ministry of the Environment and Energy Security, with the agreement of the Ministry of Culture and the Ministry of Agriculture. It came into force on 3 July 2024 and aims at making the provisions of Law 199/2021, and specifically Article 20 mentioned above, more effective.

In particular, the decree in question regulates the methods for identifying suitable areas by setting out the identification criteria and establishes the regional objectives^[81].

The regulation, giving the regions 180 days to identify the areas where it is possible to build new plants, specifies four different types of areas: eligible areas with an accelerated authorisation process, non-eligible areas, ordinary areas different from the previous ones to which the ordinary authorisation systems apply, and finally areas prohibited by the d.l. “Agriculture” (d.l. n. 63/2024, converted into law on 11 July 2024), according to which it is not possible to build new plants in areas classified as agricultural by urban plans. In the event of failure to adopt the relevant regional measures, substitutive powers are provided by the State.

The central element of the decree are the criteria chosen for the identification of the areas; on this regard, art. 7 provides: the maximisation of the areas to be identified in order to facilitate the achievement of the objectives, the need to protect the cultural heritage, landscape and agricultural areas, the possibility of classifying the areas by differentiating them on the basis of the source, size and type of plant, and finally the possibility of saving the suitable areas under art. 20, paragraph 8 of legislative decree no. 199/2021.

It should be noted that the reported criteria are very general and seem to slavishly repeat what has already been indicated in Article 20, paragraph 3 of legislative decree no. 199/2021.

What emerges from this latest regulatory intervention is a renewed tendency towards decentralisation, specifically the possibility is entrusted to the regions to consider as non-eligible areas those ones including goods subject to protection

according to art. 10 and art. 136 paragraph 1 letter a) and b) of the Code of Cultural Heritage (legislative decree no. 42/2004)

With respect to the most recently introduced amendments, it is considered that these entail a dequotation of the interests of constitutional relevance of environmental and landscape protection, without guaranteeing the coexistence and balancing of opposing interests. In particular, the legislator's intention to overcome the difficulties encountered by means of purely procedural solutions^[82], which do not take into account the shortcomings in terms of planning strategies and coordination of competences, is apparent.

Subsequent to the identification of areas, the balancing of interests cannot be fully solved by regulatory sources alone. The law, with its grade of generality and abstractness, cannot regulate the specific declination of public interests in the concrete case, a task that falls to the individual administrations, as also recognised by the Constitutional Court^[83] and administrative case law. In fact, a central role is played by the principle of proportionality^[84], which allows for a good balancing of the different interests. On this point, the aforementioned European Court of Justice ruling C-2/10 had already attributed a function to the principle of proportionality specifically in the context of the location of RES plants.

5. The innovations of the agrivoltaic plants

Bearing in mind that the development of plants generating power from renewable sources is one of the sectors that has generated the greatest number of conflicts between the environment and the landscape, it is particularly interesting to analyse how agrivoltaic technology fits into this opposition.

Agrivoltaic, or agro-photovoltaic (abbreviated AFV), is a sector of renewable energy sources based on a "hybrid" use of land between agricultural production and electricity generation: agrivoltaic systems are in fact realised by installing photovoltaic structures on the same land that is cultivated or used for livestock farming^[85].

This new form of renewable energy source becomes central with respect to the environmental and landscape compatibility of these state-of-the-art plants^[86]. Indeed, in the adoption of these plants, an interaction of environmental protection and landscape protection is considered possible. The authorities

responsible for expressing the judgement of compatibility must take into account, in the specific case, the technological and plant engineering peculiarities aimed at avoiding, or at any rate greatly reducing, the consumption of land^[87] that limits its use for agricultural purposes.

The most recent Italian jurisprudence, by emphasising the specificities of the agrivoltaic discipline, has attempted to recompose the conflict between landscape interest and environmental protection^[88].

Council of State, judgement 11 September 2023, no. 8258 focuses on innovative agrivoltaic technology^[89]. The central theme of the Council of State's ruling is the relationship between agrivoltaic and photovoltaic plants: in fact, the judges clearly state that the construction of an agrivoltaic plant, unlike photovoltaic plants, would have technical characteristics compatible with the possibility of cultivating the land. Thus, agrivoltaic plants would achieve an effective balancing of interests and would be legitimate.

The agrivoltaic technology has recently undergone regulatory changes. In fact, as already mentioned, Article 5 of d.l. no. 63/2024, ("d.l. Agriculture"), prohibits the construction of new plants in areas classified as agricultural by urban plans. However, there are some exceptions; in fact, the installation of photovoltaic systems in areas classified as agricultural by the urban plans is permitted exclusively: in areas where systems from the same source are already installed and where modifications are carried out that do not entail a change in the occupied area of more than 20%, in suitable areas identified by law under Article 20 of legislative decree no. 199/2021 (e.g. ceased quarries and mines, sites and plants in the availability of the State Railways, airport sites), areas affected by CERs (Renewable Energy Community) and in the case of plants financed by PNRR and falling within the so-called advanced agrivoltaic plants. In any case, a provisional regime is introduced which provides that the prohibition in question will not apply to projects for which, on the date of entry into force of the decree-law, at least one of the administrative procedures has been initiated.

Compared to other RES, the agrivoltaic method meets the needs of agricultural production through the agronomic recovery of land. Reconciliation with the agricultural dimension seems to be a strategic element, given the centrality of the discipline of agriculture, especially from a European perspective. Indeed, Regulation 1307/2013/EU of the European Parliament and of the Council of 17

December 2013, laying down rules on direct payments to farmers under the support schemes of the Common Agricultural Policy, affirms a favour for actions aimed at improving the environmental performance of farming practices, thus confirming that the objectives pursued by the Common Agricultural Policy (CAP) include the mitigation of the conflict between nature and production requirements.

6. Conclusions

The European legislative choices on renewable energies, followed, or anticipated, by national ones, are part of a general development. We observe the materialisation of the first steps of a legal process that departs from the mentality of ecological modernisation to advance, through the “no harm”^[90] approach, the different logic of “ecological primacy”^[91].

In the logic of the European Green deal^[92], mentioned above, there has been a shift from a dimension of European planning requirements usually addressed to single environmental issues to a more and more integrated approach that coordinates different policies and measures. However, as previously reported, reconciling top-down environmental standards and objectives, on the one hand, and local governance driven by spatial planning, on the other, can lead to conflicts between different interests^[93]. The development of EU environmental policies, as in the case of the adoption of renewable energies, though one could also draw examples from air quality^[94] and noise standards^[95], has led to a new dimension of tension between environmental planning and regulation. In fact, there is a tendency to widen the gap between local planning practice and standard-setting bodies. In addition to this, there is the intermediate level of transposition of European standards into national legislation, which often leads to additional complexities.

The implementation of RES plants is, from this perspective, an instrument for landscape protection and environmental protection. Taking into account the possible limitations in the identification of suitable areas on a state or supranational level, as mentioned above, the establishment of RES plants is only feasible by integrating the issues based on the settlement of the plants into the urban planning analysis and instruments.

As stated above, there are no specific provisions to ensure that the transition to

renewable energy projects or other types of eligible activities will not harm biodiversity in the areas concerned. Much, therefore, depends on how the “do not significant harm” principle and environmental legislation will be applied at the project level. The arrangement of the different interests, environmental and landscape, cannot disregard the effects of climate change, so a merely sectorial assessment would not be in line with the changes taking place. In fact, it must be reasoned that climate change already affects, and will increasingly affect, the landscape due to desertification, rising sea levels, and hydrogeological disruption. Therefore, it is recognised that the implementation of renewable energy sources, in addition to protecting the environment, becomes a landscape conservation tool.

Finally, with reference to environmental choices, an emphasis should be placed on the social effects of some decarbonisation policies, especially on the workers concerned. So, the matter of plants planning is also linked up with the concept of a “just transition”^[96] that focuses on the adoption of measures that primarily address the socio-economic implications of the energy transition.

1. J.B. Auby, *The influence of European Law on Planning*, in *European Public law*, 4, 1998, p. 45 e ss.; M.P. Chiti, *Il ruolo della Comunità europea nel governo del territorio*, in *Riv. giur. edil.*, 3, 2003, pp. 91-107.
2. P. Billet, *Droit de l'environnement et droit de l'urbanisme en Europe : concurrence ou complémentarité ?*, in *Cahiers du GRIDAUH*, 1, 2008, p. 27 reads: « Cette intégration est facilitée par le fait que le droit de l'urbanisme n'est plus seulement le droit de l'occupation des sols, mais tend vers d'autres adjectifs, communs au droit de l'environnement. Au-delà de la qualification, l'inspiration est commune, comme le montrent tous les rapports, et procède de la même méthode: conventions internationales et droit Communautaire, par le biais de principes inscrits soit au plus haut niveau normative, dans la constitution, soit dans la loi, [...], sans lesquels les conventions internationales et les principes constitutionnels resteraient lettre morte, faute d'opposabilité directe. » For more details C.E. Gallo, *L'ambiente e le situazioni giuridiche soggettive*, in R. Ferrara, C.E. Gallo (a cura di), *Trattato di diritto dell'ambiente*, vol. I, *Le politiche ambientali, lo sviluppo sostenibile e il danno*, Giuffrè, Milano, 2014; N. Berti, *La tutela “urbanistica” dell'ambiente: statuto costituzionale e regime amministrativo della proprietà vincolata*, in *Il diritto dell'economia*, 3, 2016, pp. 726 et seq.; F. Scalia, *Governo del territorio e tutela dell'ambiente: urbanistica e limitazione del consumo di suolo*, in *Urbanistica e appalti*, 10, 2016, pp. 1077 et seq.; P.L. Portaluri, *L'ambiente e i piani urbanistici*, in G. Rossi (a cura di), *Diritto dell'ambiente*, IV ed., Giappichelli, Torino, 2017, pp. 246 et seq.; V. Vitiello, *La nuova frontiera della c.d.*

- "urbanistica ambientale", in *Riv. giuridica dell'ambiente*, 1, 2006, p. 100 e ss.; A. Sola, *La tutela ambientale nelle città. Nuovi problemi, vecchi strumenti*, in *federalismi.it*, 21, 2019, pp. 1 et seq.
3. F. Haumont, *Le mondialisation du principe d'intégration des préoccupations environnementales dans le droit de l'urbanisme*, in J. Morand-Deville, J.-C. Benichot (dir.), *Mondialisation et globalization des concepts juridiques: l'exemple du droit de l'environnement*, IRJS Editions, Paris, 2010, pp. 299-328.
 4. To a general overview on this topic see D. Renders, J. Morand-Deville, J. Gifreu Font, *Patrimoine architectural, sites et paysages saisis par le droit de l'urbanisme / Architectural heritage, sites and landscapes seized by Urban Law*, Bruylant, Bruxelles, 2018.
 5. On the dimensions of public intervention in this field, see M. Cocconi, *Programmazione e regolazione dell'energia elettrica da fonte rinnovabile*, in *Il diritto dell'economia*, 1, 2014, pp. 131-173.
 6. The Paris Agreement set the global collective goal of limiting global warming to well below 2 degrees Celsius, the pursuit of efforts to limit the increase to 1.5° C compared to pre-industrial levels and to rapidly reduce emissions. It is known as the first universal and legally binding understanding on climate change. This goal does not translate into individual binding targets, but on the contrary, it is up to the Parties, participating in the Conference of the Parties (COP21), to decide through national plans "how and how much" to contribute to the collective goal. See C. Streck, P. Keenlyside, M. von Unger, *The Paris Agreement: A New Beginning*, in *Journal for European Environmental & Planning Law*, 13, 2016, pp. 1 et seq.
 7. A. Nadia, U. Outka, D. Stokes, H. Wiseman, *Synthesizing Energy Transitions*, in *Georgia State University Law Review*, 4, 2023, pp. 1087-1130.
 8. With the adoption of the Lisbon Treaty "Sustainable development" was introduced as an objective of the EU. The term sustainable development was also introduced in the preamble and Article 37 of the EU Charter of Fundamental Rights, which affirms that a high level of protection and improvement of human rights must be built into the Union's policies and assured in accordance with the principle of sustainable development. Article 11 TFEU says that environmental protection requirements must be incorporated into the definition and implementation of the Union's policies and actions. See M. Kenig-Witkowska, *The Concept of Sustainable Development in the European Union Policy and Law*, in *Journal of Comparative Urban Law and Policy*, 1, 2017, pp. 64-80.
 9. In this paper, the object of analysis will be the installation of plants, but it should be noted that in the field of renewable energy promotion, more attention has been given to the subject of economic support schemes. See D. Behn, O.K. Fauchald, L. Létourneau-Tremblay, *Promoting Renewable Energy in the EU: Shifting Trends in Member State Policy Space*, in *European Business Law Review*, 2, 2017, pp. 217-243.
 10. For more details D. Fouquet, C. Maiworm, *Preußen Elektra revisited: the recent judgement of the Court of Justice of the EU about the German support mechanism for renewable energies*, in *Renewable Energy Law and Policy Review*, 2, 2019, pp. 68-71.

11. *Ex multis*, Bogdel v Lithuania, European Court of Human Rights, Chamber Judgment 26 Nov 2013. Application No. 41248/06, which concerned the privatization and consequent expropriation by the state of a plot of land that had been earmarked for World Heritage status. See A. Strecker, *Landscape in Human Rights Case Law*, in *Landscape Protection in International Law*, Oxford University Press, Oxford, 2018.
12. See S. Civitarese Matteucci, G.F. Cartei, *The Impact of the European Landscape Convention on Landscape Planning in Spain, Italy and England*, in *Journal of Environmental Law*, 2, 2022, pp. 307–333. V. Parisio, P. Stella Richter, *La protection du patrimoine architectural, des sites et du paysage dans le système juridique italien: un vue d'ensemble*, in *Riv. Giur. Ed.*, 6, 2017, pp. 349 et seq.
13. See M. Chapouton, *Regard d'une juriste sur la ville durable*, in *Villes en parallèle*, 51-52, 2023, pp. 88-93.
14. See H. Vandevyvere, S. Stremke, *Urban Planning for Renewable Energy Future: methodological challenges and opportunities from a design perspective*, in *Sustainability*, 4, 2012, p. 1311, reads «*A typical example within the built environment is the trade-off between heritage value and improvement of the energy performance: it is unlikely that packing an iconic art nouveau building with an external insulation layer would be considered a good option*».
15. D. Misonne, *Global climate governance turning translocal*, in *French Yearbook of Public Law*, 1, 2023, pp. 181 et seq.
16. Nowadays, the urban planning power can no longer be merely regarded in relation to the management of the building dimension of private property. On this point, reference is made to the theory already affirmed in 1956 by F. Benvenuti, *Gli elementi giuridici della pianificazione territoriale in Italia*, in Id., *Scritti giuridici*, Vita e Pensiero, Milano, 2006, II, p. 1459, according to which «*the object of planning is no longer considered only the planning is no longer considered only the building structure of the territory, nor does it pursue any longer only a purpose of architectural embellishment or hygienic safety, but (...) the ultimate aim of the plan (...) is to achieve a balance between population, economy and territory*».
17. B.E. Olsen, *Wind Energy and Local Acceptance: How to Get Beyond the Nimby Effect*, in *European Energy and Environmental Law Review*, 5, 2010, pp. 239-251.
18. On this point, in order to scrutinise the relationship between environment and landscape it may be useful to analyse the theory of the parallel protection of differentiated interests. For an initial definition of the concept, see V. Cerulli Irelli, *Pianificazione urbanistica e interessi differenziati*, in *Riv. trim. dir. pubbl.*, 1985, p. 441, where it is stated: «*the content and object of the policy of the territory, and in particular of the function of general territorial (urban) planning, are limited by the fact that a series of activities (with territorial incidence) and certain species of immovable objects, because they express public interests differentiated with respect to the (general) policy of the territory, are in turn the object of public functions differentiated with respect to the latter and attributed to subjects or bodies expressly assigned by law to their care*».

19. Introduced by Directive 2001/42/EC. For more on the specific context, see L. Caruccio, *Energie rinnovabili e valutazione di impatto ambientale: stato dell'arte e prospettive*, in G.F. Cartei (a cura di), *Energie rinnovabili e Piano Nazionale di Ripresa e Resilienza*, Editoriale Scientifica, Napoli, 2022.
20. For a general overview see F. Vetrò, *Sviluppo sostenibile, transizione energetica e neutralità climatica. Profili di "governance": efficienza energetica ed energie rinnovabili nel "nuovo ordinamento" dell'energia*, in *Riv. It. Dir. Pubbl. Com.*, 1, 2022, pp. 53-104.
21. E. Chiti, *Managing the ecological transition of the EU: The European Green Deal as Regulatory process*, in *Common Market Law Review*, 2022, n. 59, pp. 19-47.
22. About the accessibility of renewable energy communities for vulnerable households, see B. Hoops, *The Clash of the Energy Commons*, in *European Energy and Environmental Law Review*, 3, 2024, pp. 115-122.
23. M.A. Awuah, *Energy Regionalism in ECOWAS and the EU: A Comparative and Polycentric Governance Study*, Nomos, Baden Baden, 2021.
24. S. Manservigi, *Energie rinnovabili e pianificazione energetica sostenibile. Profili europei ed internazionali*, Jovene, Napoli, 2016; R. Lealarcas, J. Wouters, *Research Handbook on EU Energy Law and Policy*, Edward Elgar Publishing, Londra, 2017.
25. T. Iliopoulos, *Dilemmas on the Way to a New Renewable Energy Directive*, in *European Energy and Environmental Law Review*, 6, 2018, p. 216 reads: «Nevertheless, since the proposed system gives much attention to the trajectory for the attainment of the RE target, Member States only gain flexibility within a framework of a stronger EU governance and of a more stringent intervention and monitoring by the Commission.[...] In this sense, it might also be worth experimenting with a new RE target paradigm, especially if the Member States were not disposed to accept national mandatory targets determined by EU law plus a strong governance framework. Besides, enacting a Union RE target to be collectively reached and a thorough Energy Governance Regulation opens a path to Europeanization».
26. Directive 2001/77/EC, On the promotion of electricity produced from renewable energy sources in the internal electricity market.
27. Art. 6, Dir. 2001/77/CE.
28. A. Johnston, E. Van der marel, *How Binding are the EU's "Binding" Renewables Targets?*, in *Cambridge Yearbook of European Legal Studies*, 18, 2016, pp. 176-214.
29. This list was then revised in the most recent Directive 2018/2001/EU, which identifies solar energy as being split between solar thermal and photovoltaic energy (Art. 2, no. 1).
30. See Art. 12, administrative procedures, regulations and codes, Art. 13, information and training, and Art. 14, grid access.
31. D. Fouquet, A. Johnston, K. Neuhoﬀ, M. Ragwitz, G. Resch, *The Proposed New EU Renewables Directive: Interpretation, Problems and Prospects*, in *European Energy and Environmental Law Review*, 3, 2008, pp. 126-145.
32. It envisaged an increase to 32% of energy consumption from renewable sources by 2030, and also affirmed the target of 14% RES energy in transport.
33. COM (2019) 640 final, 11 December 2019.

34. Reg. 2021/1119/EU. See G. Monti, *The European climate law: Making the social market economy fit for 55?*, in *Common Market Law Review*, 5, 2021, pp. 1321-1340.
35. Art.1, par. 2.
36. «Climate litigation is usually approached as an umbrella concept covering all types of dispute that relate to climate change (touching upon both mitigation actions as well as adaptation measures), ranging from lawsuits focused on catalyzing legal or political change at government level to proceedings aimed at holding companies accountable for their contribution to climate change», in H. Schoukens, *Strategic Climate Change Litigation and the EU Habitats Directive: Squaring the Circle with the Help of the U.S. Endangered Species Act?*, in *Journal for European Environmental & Planning Law*, 1, 2023, p. 52. To a general overview, see United Nations Environment Program, *Global Climate litigation Report*, 2020, Status Review.
37. Reg. 2021/241/EU.
38. The intervention was designed in six pillars, the first of which is the ecological transition, to which 37% of the funds were allocated (art. 16).
39. «The environment can not only be compatible with development but can and must become a driving force for economic recovery, which has long been stagnant, and for a new type of development» in G. Rossi, *Dallo sviluppo sostenibile all'ambiente per lo sviluppo*, in *Riv. Quadr. Dir. Amb.*, 1, 2020, p. 10.
40. COM(2021) 550 final, 14 July 2021. It is a comprehensive package to promote the revision of EU legislation on energy efficiency, the promotion of renewables, the emissions trading system, transport, taxation of energy products, land use and forestry, and emissions in sectors not covered by the emissions trading system; and the creation of a Carbon Border Adjustment Mechanism.
41. G. Barozzi Reggiani, *Il principio di massima diffusione delle energie rinnovabili*, in *Riv. Giur. Amb.*, 3, 2022, pp. 597-642.
42. On the economic point of view, see I. Schnabel, *A new age of energy inflation: climateinflation, fossilflation and greeflation*, in *Astrid Rassegna*, 5, 2022, pp.1 et seq.
43. COM(2022) 108 final, 8 March 2022.
44. The EU imported 90% of the gas it consumes, half of it from Russia, plus 27% of oil imports and 40% of coal. See European Commission, *In focus: Reducing the EU's dependence on imported fossil fuels*, 20 April 2022.
45. COM (2022) 221 final, 18 May 2022. aimed at doubling photovoltaic capacity by 2025, through the installation of 600 GW of renewable energy by 2030.
46. Council Regulation 2024/223/ EU amended Regulation 2022/2577/EU. The regulation of 2022 contained temporary rules of an emergency nature, lasting 18 months, with the aim of speeding up the authorised procedures of RES plants.
47. Through Article 16f, Directive 2018/2001/EU establishes a rebuttable presumption that renewable energy projects are of overriding public interest and in the interest of public health and safety, with a wording almost identical to Article 3(1) of Regulation 2022/2577/EU.

48. See Rec. no. 8, art. 3.
49. Art. 6, Reg. 2022/2577/EU.
50. Natura 2000 is the main instrument of European Union policy for the conservation of biodiversity. It is an ecological network spread across the entire territory of the Union, established under the Habitats Directive 92/43/EEC to ensure the long-term maintenance of threatened or rare natural habitats and species of flora and fauna at Community level, see: <https://eur-lex.europa.eu/IT/legal-content/glossary/natura-2000.html>.
51. Art. 4, par. 3, Reg. 2022/2577/EU.
52. Art. 4, par. 1, Reg. 2022/2577/EU.
53. Indeed, Article 194 TFEU guarantees each Member State the right to determine the sources and structure of its energy supply, but also stipulates that the general objectives of EU energy policy must be achieved in “a spirit of solidarity” between Members. Article 194 of the Treaty on the Functioning of the European Union expressly states that the Union's policy in the field of energy shall be aimed at (para. 1(C)) «*promoting energy saving, energy efficiency and the development of new and renewable forms of energy*».
54. M. Münchmeyer, *The principle of energy solidarity: Germany v. Poland*, in *Common Market Law Review*, 3, 2022, pp. 915-932.
55. Par. n. 21 Reg 2022/2577/EU.
56. Reg. 2022/2577/EU in recital 22 says: «1. *Without prejudice to any other procedures provided for in the Treaties, the Council, on a proposal from the Commission, may decide, in a spirit of solidarity between Member States, upon the measures appropriate to the economic situation, in particular if severe difficulties arise in the supply of certain products, notably in the area of energy*».
57. C. Kelly, *Comparative Law as an Instrument in Transnational Law: The Example of Large-Scale Renewable Energy Regulation*, in *European Energy and Environmental Law Review*, 1, 2016, pp. 25-38.
58. F. Delgado Piqueras, *Toward a European Regulatory Scheme for the Promotion of Green Power: Ensuring Energy Supply, Environmental Protection and Sustainable Development*, in *European Public Law*, 4, 2012, pp. 665-680.
59. S. Galera Rodrigo, *Changing the Energy Model: Step Back on the Europe 2050 Strategy?*, in *European Energy and Environmental Law Review*, 2, 2016, pp. 65-72.
60. To this, an additional 2.5 per cent is added; therefore, it is foreseen that Member States may further increase the share of renewable energy to 45 per cent (Art. 3). Likewise, a new obligation is imposed in the field of transport, raising the share of renewable energy in this sector to 29%. Previously in the RED II directive it was set at 14%.
61. Recital 26 of Directive 2023/2413/EU.
62. See E. Boscolo, *Agricoltura e produzione di energia: l'agrivoltaico di fronte al Consiglio di Stato*, in *Giurisprudenza Italiana*, 12, 2023, p. 2702; P. Biandrino, *Introduzione*, in E. Bruti Liberati, M. De Focatiis, A. Travi (a cura di) *L'Attuazione dell'European Green Deal. I mercati dell'energia e il ruolo delle istituzioni e delle imprese*, Wolters Kluwer, Milano, 2022.

63. See H. Tegner Anker, B. Egelund Olsen, *EU Species Protection Law and Wind Energy: Current Challenges and Danish Experiences*, in *European Energy and Environmental Law Review*, 1, 2023, pp. 36-46.
64. Directive 2009/147/EC on the conservation of wild birds.
65. Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.
66. For a general overview, see G.F. Cartei, *Transizione energetica ed energie rinnovabili: una introduzione*, in G.F. Cartei (a cura di), *Energie rinnovabili e Piano Nazionale di Ripresa e Resilienza*, cit.
67. G. Pizzanelli, *Buona amministrazione e regime delle energie rinnovabili*, Pisa University Press, 2023, p. 15; P. Carpentieri, *Paesaggio, ambiente e transizione ecologica*, in *giustiziainsieme.it*; P. Marzaro, *Paesaggio vs rinnovabili. Le pressioni di un sistema in continua espansione: verso l'irrelevanza paesaggistica*, in *Riv. Giur. Urb.*, 2, 2023, pp. 248-279.
68. «The protection of the landscape becomes a primary value to which any other interfering interest must be subject» Cost. Court, 5 May 2006, no. 182, (points 2 and 3 in law), in *Giur. Cost.*, 2006, p. 1841 et seq.
69. A. Moliterni, *La regolazione delle fonti energetiche rinnovabili tra tutela dell'ambiente e libertà di iniziativa economica privata: la difficile semplificazione amministrativa*, in *Federalismi.it*, 18, 2017, pp. 1 et seq.
70. Legislative decree no. 387/2003, Article 12 paragraph 3 reads: «They are subject to a single authorization, issued by the region or other institutional entity delegated by the region, in compliance with the regulations in force on environmental protection, landscape protection and historical-artistic heritage».
71. Adopted by the Ministry of Economic Development with the Ministry of the Environment, Protection and Sea and the Ministry of Infrastructure and Transport, it sets national targets for increasing energy from renewable sources, reducing greenhouse gases and increasing electricity interconnectivity to 2030. Available at: https://www.mimit.gov.it/images/stories/documenti/PNIEC_finale_17012020.pdf.
72. On this topic, see R. Ferrara, *Il cambiamento climatico e il Piano Nazionale di Ripresa e Resilienza (PNRR): un'introduzione al tema*, in *Dir. e società*, 2, 2021, pp. 271-292; C. Viviani, S. Giani, *Transizione energetica e PNRR. Accelerazione e semplificazione delle procedure*, in *Urbanistica e appalti*, 1, 2022, pp. 5 et seq.
73. See Italian Constitutional Court, judgement 16 April 2012, no. 99. This was followed by the more recent Italian Constitutional Court, judgement 15 April 2019 No. 86.
74. On this topic, see P. Mastellone, *La disciplina in materia di fonti di energia rinnovabili e la tendenza "decentralizzante": quale ruolo per lo Stato?*, in *CERIDAP*, 1, 2024, pp. 162-213.
75. B. Tonoletti, *Le procedure autorizzative per le fonti rinnovabili di energia e il rapporto tra obiettivi di decarbonizzazione e tutela di altri interessi pubblici*, in Bruti Liberati, M. De Focatiis, A. Travi (a cura di), *L'Attuazione dell'European Green Deal. I mercati*

- dell'energia e il ruolo delle istituzioni e delle imprese*, cit.
76. S. Massari, *The Italian Photovoltaic Sector in Two Practical cases: How to Create an Unfavorable Investment Climate in Renewables*, in *OGE Energy Law Journal*, 3, 2015.
 77. Ministerial decree 10 September 2010, issued by the Ministry of Economic Development, Ministry of Environment and Ministry of Cultural Heritage and Activities.
 78. C. Viviani, *La localizzazione degli impianti di produzione di energia da fonte rinnovabile*, in G.F. Cartei (a cura di), *Energie rinnovabili e Piano Nazionale di Ripresa e Resilienza*, cit.
 79. See Italian Constitutional Court, judgement 13 May 2022, no. 121.
 80. To these simplifications must be added the introduction of a single Superintendence for Cultural Heritage, operational until 2026 for the protection of the cultural and landscape assets affected by the PNRR, established pursuant to art. 29 of d.l. no. 77/2021, converted by Law no. 108 of 29 July 2021.
 81. While the national target is 80 GW by 2030, the main regional targets are: Sicily which will have to install 10.3 GW, Lombardy with 8.6 GW, Apulia with 7.2 GW, Emilia Romagna and Sardinia both with 6.2 GW each, Tuscany 4.2 GW, Calabria 3.1 GW, Veneto about 5.7 GW and Lazio 4.7 GW. (Art. 2, DM 21 June 2024).
 82. A. Travi, *Le complicazioni della semplificazione amministrativa*, in Id., *Scritti scelti*, Jovene, Napoli, 2022, p. 211, argues that simplification does not only correspond to a “technical” dimension but also concerns political evaluation. On the same topic, see M. De Donno, F. Di Lascio, *Public Authorities and Complexit*, Edizioni Scientifiche Italiane, Napoli, 2022. On the role played by environmental protection in simplification procedures in the Italian context, see V. Parisio, *Interessi “forti” e interessi “deboli”: la natura degli interessi come limite alla semplificazione del procedimento amministrativo nella legge 7 agosto 1990 n. 241*, in *Diritto e processo amministrativo*, 4, 2014, pp. 839-870.
 83. See Italian Constitutional Court, judgement 7 July 2021, no. 177, where it is stated: « *A regional regulation that does not respect the reservation of administrative procedure and, therefore, does not allow for a balancing of interests in concrete terms, strictly adhering to the specificity of the places, prevents the best valorisation of all the public interests involved and, as a consequence, violates the principle, in accordance with European Union law, of the maximum diffusion of installations from renewable energy sources.* »
 84. See F. De Leonardis, *Criteri di bilanciamento tra paesaggio ed energia eolica*, in *Dir. Amm.*, 4, 2005, pp.889-913. For a general overview see D.U. Galetta, *Il principio di proporzionalità fra diritto nazionale e diritto europeo (e con uno sguardo anche al di là dei confini dell'Unione Europea)*, in *Riv. It. Dir. Pub. Com.*, 6, 2019, pp. 903-927; D.U. Galetta, *The EU law principle of proportionality and judicial review: its origin, development, dissemination and the lessons to be learnt from the EU Court of Justice*, in *Riv. It. Dir. Pub. Com.*, 5-6, 2021, pp. 619-641.
 85. M. Taylor, J. Pettit, T. Sekiyama, M.M. Sokołowski, *Justice-driven agrivoltaics: Facilitating agrivoltaics embedded in energy justice*, in *Renewable and Sustainable Energy Reviews*, 188, 2023, pp. 1 et seq.

86. J. Widmer, B. Christ, J. Grenz, L. Norgrove, *Agrivoltaics, a promising new tool for electricity and food production: A systematic review*, in *Renewable and Sustainable Energy Reviews*, 192, 2024, pp. 1 et seq.
87. For an overview at European level, see European Environment Agency, Urban sprawl in Europe. The ignored challenge. (EEA Report, n. 10/2006); **Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, *Thematic Strategy for Soil Protection***. COM(2006)231; Communication from the Commission to the European Parliament, the Council, the European economic and social committee and the Committee of the regions, EU Soil Strategy for 2030 Reaping the benefits of healthy soils for people, food, nature and climate. COM/2021/699 final.
88. E. Boscolo, *Agricoltura e produzione di energia: l'agrivoltaico di fronte al Consiglio di Stato*, in *Giurisprudenza Italiana*, 12, 2023, pp. 2071 -2078; it be allowed to refer to F.R. D'Amico, *L'energia rinnovabile da impianti agrivoltaici*, in *Giorn. Dir. amm.*, 3, 2024, pp. 326-338.
89. The judgement under review comments on the reform of the decision of the Lecce Regional Administrative Court (TAR) no. 248 of 2022. For commentary see, L. Scuto, *Il Tar Lecce si pronuncia sugli impianti agrivoltaici: è possibile far coesistere fonti rinnovabili e produzione agricola?*, in *CERIDAP*, 2, 2022, pp. 1 et seq.
90. M. Onida, *The "Do Not (Significantly) Harm" Principle*, in K. de Graaf, et al (eds.), *Liber amicorum Jan Jans*, 2021, p. 45.
91. E. Chiti, *Managing the ecological transition of the EU: The European Green Deal as Regulatory process*, in *Common Market Law Review*, 59, 2022, p. 19.
92. L. Krämer, *Planning for Climate and the Environment: the EU Green Deal*, in *Journal for European environmental & planning law*, 3, 2020, pp. 267-306.
93. M. Fermiglia, K. Pedrosa, *Planning for Citizens' Health: Towards an Integrated Approach to Air and Noise Pollution in the EU*, in *Journal for European Environmental & Planning Law*, 1-2, 2022, pp. 9-30.
94. E. van Rij, W.K. Korthas Altes, *Integrated air quality and land use planning in The Netherlands*, in *International Journal of Law in the Built Environment*, 1-2, 2014, pp. 194-195.
95. European Commission Report com(2017) 151 final, On the Implementation of the Environmental Noise Directive.
96. V. Karageorgou, *The EU Just Transition Concept and Its Application in the Case of the Just Transition Mechanism*, in *Journal for European Environmental & Planning Law*, 3-4, 2023, pp. 287-320.