

**ENERGY AS A COMMON: NEW PATHS OF PRODUCTION
THE KEY-ROLE OF ENERGY COMMUNITIES
IN THE ITALIAN CONTEXT¹**

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1. METHODOLOGICAL PREMISE AND OBJECTIVES OF THE STUDY

Energy communities are gaining growing importance in Europe. Especially in Italy⁴, these juridical and technical tools for producing energy receive a focused attention by

⁴ The analysis will focus on the transposition of European regulations in Italy. However, the picture in Europe is quite varied, noting application experiences of the energy community model especially in France, the Netherlands and Germany.

See, for France, G. DEBIZET, M. PAPPALARDO, *Communautés énergétiques locales, coopératives citoyennes et autoconsommation collective: formes et trajectoires en France*, in *Flux*, 2021/4 (N° 126), p. 1-13. DOI : 10.3917/flux1.126.0001. URL : <https://www.cairn.info/revue-flux-2021-4-page-1.htm>: «En France, les recherches sur les communautés énergétiques sont plutôt récentes, mais il existe une littérature affirmée autour de la territorialisation de l'énergie et sur l'organisation des acteurs du secteur énergétique, contribuant à l'émergence de trois débats scientifiques majeurs: les formes démocratiques des communautés, les dimensions territoriales en prenant comme point de départ les infrastructures et, les mutations des modèles économiques et de l'organisation de la filière énergétique». And moreover: «Depuis juillet 2021, le cadre réglementaire français évolue, notamment par l'entrée en vigueur en des ordonnances (publiées en mars 2021) transposant les directives européennes RED II et IEMD, qui définissent les règles applicables aux différents modèles de communautés énergétiques, aux garanties d'origine ainsi qu'à l'encadrement du stockage de l'électricité».

For Germany and Netherlands, see, above all, T. HOPPE; A. GRAF, B. WARBRÖEK, I. LAMMERS, I. LEPPING, *Local Governments Supporting Local Energy Initiatives: Lessons from the Best Practices of Saerbeck (Germany) and Lochem (The Netherlands)*, in *Sustainability*, no. 7/2015, p. 1900-1931. <https://doi.org/10.3390/su7021900>. Especially for Germany: «A vast and increasing number of LEIs are present in Germany. The growing number of citizens' energy cooperatives (*Energiegenossenschaften* in German; authors' translation) and local energy suppliers (*Stadtwerke* in German; authors' translation) should be viewed against the political and social aspects of Germany's energy transformation (*Energiewende* in German; authors' translation). In large part, the rise of the LEIs is due to local bottom-up initiatives that align with the federal government's energy and climate change mitigation goals. Dating back to the early 20th century, decentralized cooperatives (based on fossil fuel use) came into existence to ensure the provision of electricity in remote areas. The municipal energy companies providing heat and power were initially owned by the municipality, and are now partially privatized or owned by local energy cooperatives, the number of which has risen dramatically, from 136 in 2008 to 888 in 2013, in line with the German public's growing interest in local "green" energy solutions». While, for Netherlands: «With the exception of the 31 traditional wind cooperatives, citizens' energy initiatives are relatively new in the Netherlands. Oteman *et al.* characterize community initiatives in the Netherlands as a young yet rapidly developing phenomenon. LEIs are typically small and lack substantial institutional support from government; nor do they receive substantial support from large-scale industries. There are two types of initiatives in the Netherlands today: the classic wind cooperative and what Oteman *et al.* call the "new style" LEIs ("*Lokale Duurzame Energiebedrijven*" in Dutch; authors' translation)».

government and legislator, because they have great potential to avoid the risk of energy and fuel shortages – due to increasing international conflicts with producer countries – and to reach the imperative environmental sustainability targets imposed by European Union.

Studying the development of this phenomenon in Italy requires a systemic approach, because the theme is complex by its nature – and its complexity is, moreover, irreducible: it pertains to scientific sectors that are distant from each other and apparently not communicating with each other.

We will focus, therefore, on the Italian discipline and the juridical application of the energy communities – or, more broadly, the so-called «configurations for widespread self-consumption»⁵ of energy: this approach implies that we must dialogue – with all the difficulties that follow, above all of lexicon⁶ used – with the hard sciences, passing through

⁵ The definitional terminology contained in the latest resolution of the Regulatory Authority for Energy, Networks and the Environment (hereinafter also ARERA), dated 27 December 2022, n. 727 (727/2022/R/eel), with which the Authority approved the Integrated Text on Widespread Self-consumption - TIAD, whose art. 1, «Definitions», par. 1, lit. n), includes within the notion of «configuration for widespread self-consumption» all the following typologies: «group of self-consumers of renewable energy acting collectively; group of active customers acting collectively; renewable energy community or renewable energy community; citizen energy community; individual self-consumer of renewable energy “remotely” with a direct line; individual self-consumer of “remote” renewable energy using the distribution network; “remote” active customer who uses the distribution network» (Our translation, as all Italian quotations have been here translated).

⁶ The linguistic issue has a considerable impact on interdisciplinary dialogue, creating phenomena of pre-understanding already within the sphere of the legal discipline alone. Notoriously, one of the characteristic activities of the jurist is that of interpreting texts: far from pure literalism, the interpreter also entrusts the outcome of the interpretation to the political, cultural and value substratum which is in his life baggage and which constitutes, indeed, the visual cone from which his gaze captures the intrinsic meaning of the concepts contained in the text placed for his examination. In this regard, the reference to one of the Masters of juridical hermeneutics is essential, H.-G. GADAMER, *Hermeneutic II. Wahrheit und Methode*, Tübingen, now translated, H.-G. GADAMER, *Truth and method 2*, Milan, 2001.

When this interpretative activity is also instrumental to the application of the rules of law and the resolution of disputes, and therefore - ultimately - to the acceptance of requests for protection; when, therefore, this activity is carried out by a Judge, the hermeneutic problem emerges in all its virulence. See D. CANALE, *La precomprensione dell'interprete è arbitraria?*, in *Etica & politica*, n. 1/2006, p. 1 ff., spec. p. 2: «Once it has been established that judicial interpretation cannot be described as a logical-deductive procedure, but includes political choices and value choices that condition the identification of decision-making premises, how to distinguish a legitimate presupposition

the economic and consumer sciences, for those of public and environmental law⁷, to also land on geopolitical sciences, inevitably involved in the global dimensions of the energy market.

For this reason, the analysis will be conducted without any claim to be exhaustive, being mostly addressed to the relevant juridical profiles of energy self-consumption in the Italian scope, which already from this point of view is suitable for revolutionizing a consolidated

from an illegitimate one or a correct interpretation from an erroneous one?». Lastly, on the subject, P.L. PORTALURI, *Di poeti, giudici e sirene. Cantionculae supra methodum*, in *Dir. amm.*, n. 4/2022, pp. 915 ff.: the A. warns that the practice of extracting the table of values for the jurisdictional decision directly from social feeling must find a limit in the law, the meaning of which cannot be distorted according to the socio-political and cultural context in which it is applied. The great tragedies of the proto-twentieth-century totalitarianisms – more extensively traversed always by P.L. PORTALURI, *La cambiale di Forsthoff. Creazionismo giurisprudenziale e diritto al Giudice amministrativo*, Naples, 2021 – demonstrate it. Lastly, see also F. SAIITA, *Interprete senza partito? Saggio critico sulla discrezionalità del Giudice amministrativo*, Naples, 2022.

⁷ A further complicating factor: as will be better seen later on, the institution of energy self-consumption is at the crossroads of state and European disciplines in environmental matters. This implies that the linguistic transposition also follows a vertical direction, contaminating the languages of the internal regulations with those more specific to the European directives, sometimes bearers of different values with respect to those consolidated in the territory of repercussion. This too is a profile mostly analyzed by public law and European law doctrine: in this regard, however, we note the primary contribution of A. TIZZANO, *Problemi 'linguistici' nell'interpretazione e applicazione del diritto dell'Unione europea*, in *Dir. Un. Eur.*, no. 4/2017, p. 861 ss., which tells of European multilingualism in opposition to the origins of the Union, in which the context was much simpler since the only diplomatic language and which was authentic in the regulatory texts was French, a language obviously spoken in the first six member states of the then ECSC.

Today, however, the problem is not only of “translation” of the terms introduced by the directives, but precisely of “transmigration” of the legal concepts underlying them and of their table of values. A very recent example is given by Regulation (EU) 2022/2577 of the Council of 22 December 2022, which establishes the framework for accelerating the diffusion of renewable energies, whose recital no. 4 refers to the «introduction of a rebuttable presumption that renewable energy projects are in the overriding public interest for the purposes of relevant environmental legislation». If you go to read the German version of the text, you realize that the Italian translation is decidedly milder, where for «prevailing», in German, is meant «überwiegend» (literally: overwhelming). See S. PAPARO and F. BASSANINI, *Per accelerare la transizione energetica: proposte urgenti di ulteriore semplificazione delle procedure amministrative*, in *Paper Astrid*, n. 89, 13 January 2023, for which «The Member States will therefore have to ensure that, when balancing public interests, priority is given to the construction and operation of energy production plants from renewable sources, as well as the development of the related network infrastructure. The faculty of the Member States to limit the application of these provisions to specific areas of their territory and to specific types of technologies or projects is recognised» (p. 25).

market structure which has seen – so far – «energy» as a commodity produced and supplied by dominant subjects whose activity is supervised by an independent regulatory authority.

And instead the design of these configurations for widespread self-consumption indicates that private individuals can no longer be only final consumers of a good that they pay to its producer and seller in the area; but they can be – in turn – producers, consumers and resellers in a system that is not the “given” one of the market, but an organized and equal system according to rules shared with other subjects, who are also producers, consumers and resellers.

This axiom – which is an invariant of the different configurations of collective self-consumption – suggests two data: first of all, that energy can also be produced and sold outside the traditionally understood market structure, being able to be the object of “community” exchange, thus distancing it from the notion of *commodity* and approaching it, rather, to the concept of *common good*; secondly, that its use can be both private and public, not infrequently the public administrations being contemplated in these communities – as promoters or purely parts of the *pactum* – so as to guarantee energy autonomy of their local territories, so that there one can see a concrete application of the principle of horizontal subsidiarity pursuant to art. 118, co. 4, of the Italian Constitution⁸.

Now, the reflection on these two ridges also involves the repercussions of the creation of these pact instruments on a broader context, that of European regulation, which – after the ecological transition objectives referred to in the Green Deal, after the reaction to the pandemic and the fixation of the Next Generation EU – now has to manage a serious energy crisis, for which additional instruments were needed: the Winter Package and, most recently, the Repower EU programme. Ambitious goals that are all interrelated: achieving climate

⁸ According to which, «Stato, Regioni, Città metropolitane, Province e Comuni favoriscono l’autonoma iniziativa dei cittadini, singoli e associati, per lo svolgimento di attività di interesse generale, sulla base del principio di sussidiarietà» (this is the Italian and original version of the norm). The aforementioned provision obliges territorial administrations to favour the intervention of citizens – individual or associated – for the performance of functions of general interest: in this logic of sharing, it is thus possible that the interests of a territorial community also become the responsibility of the citizens themselves, who take care of them – precisely – by going to the aid of public administrations.

neutrality, gradually – but inexorably – abandoning fossil energy sources, aiming at energy independence from the large producers who threaten the economy⁹.

The work will therefore proceed according to successive steps, first by identifying a possible key-role of the energy communities in the current Italian political-economic context; the analysis will then proceed in a more technical way, focusing on the constitutive and functioning aspects of these communities, provided by EU directives and Italian implementing decrees; to then induce, also through the comparison with other realities in which the phenomenon is occurring with some success, reflections on energy as a common good and on the functioning of these phenomena as examples of social partnership and concretization of horizontal subsidiarity.

We will try to demonstrate that energy communities are a fundamental element for the transition to a more shared, democratic, renewable and clean form of energy production; and that however, despite the regulatory effort, there are still shadows that are difficult to dispel, first of all that their development is still held back by a still unattractive incentive system provided by domestic norms.

2. THE CONTEXT IN WHICH THE ENERGY COMMUNITIES ARE PROVIDED

The Union's attention to the issue of energy transition – in the sense of encouraging the use of clean and renewable energies and aiming at the production and consumption of energy autonomization – emerged in full force in the elaboration of the package of measures to the achievement of the so-called climate neutrality¹⁰.

⁹ See, above all, the last report about EU's utilization of renewable energies: European Commission, Directorate-General for Energy, Hörman, M., Georgiev, I., Wessel, R., et al., *EU's global leadership in renewables : final synthesis report : July 2021*, Publications Office of the European Union, 2022, <https://data.europa.eu/doi/10.2833/523799>.

¹⁰ Climate neutrality is the subject of the Union's attention and is mainly thematic starting from the Green Deal, see about it A. MOLITERNI, *Il Green Deal europeo e le sfide per il diritto dell'ambiente*, in *Riv. quad. dir. amb.*, no. 1/2021, pp. 1 ss., which presents a monographic issue of the same magazine, entirely dedicated to the Green Deal,

The European Green Deal, in particular, is today the most important set of initiatives¹¹ proposed by the European Commission precisely with the aim of achieving climate

and states that «Although talk of the Green New Deal already started after the economic-financial crisis of 2008 (starting from the Green New Deal Group of 2008 and the UNDP report of 2009 “Rethinking the Economic Recovery: A Global Green New Deal”) and although there are several Green Deals that are being discussed globally (United States, Canada, United Kingdom, Australia, South America), the strategy launched by the European Commission with the Communication of 11 December 2019 has undoubtedly contributed to projecting the EU in the role of world leader in environmental policies and in the fight against climate change» (pp. 4-5). See also, for interesting references, M. FALCONE, *Il Green Deal europeo per un continente a impatto climatico zero: la nuova strategia europea per la crescita tra sfide, responsabilità e opportunità*, in *Studi sull'integrazione europea*, n. 2/2020, pp. 379 ff.; doctrine has already dedicated a large literature to it: E. CHITI, *Managing the ecological transition of the EU: The European Green Deal as a regulatory process*, in *Common Market Law Review*, n. 1/2022, pp. 19 ss.; and then A. MOLITERNI, *Transizione ecologica, ordine economico e sistema amministrativo*, in *Rivista di Diritti Comparati*, n. 2/2022, pp. 395 ss.; v. anche l'analisi di D. BEVILACQUA, *La normativa europea sul clima e il “Green New Deal”. Una regolazione strategica di indirizzo*, in *Riv. trim. dir. pubbl.*, n. 2/2022, p. 297 ss., which, starting from the analysis of the European Climate Regulation (n. 2021/1119), identifies an encouraging governance system with respect to the climate neutrality objectives, albeit elaborated by a European legislator defined as rather “shy” («the excessive timidity of the European legislator who, while using the instrument of the regulation, renounces going so far as to establish concrete measures, to define common detailed rules, to identify competences and limits and to use the binding force available to demand certain policies from the states. here, if the choice is that of a gentle transition, of small steps, the urgency of global warming would seem to require a different approach».

¹¹ The complex of policies, initiatives and regulations of the “package” on the European Green Deal, inaugurated by the homonymous Communication of the EU Commission COM(2019) 640 final of 11 December 2019, is divided into a plurality of acts which concern a large of issues all connected – directly or indirectly – with climate impacts. Think, without claiming to be exhaustive, of the aforementioned Next Generation EU (NGEU), which includes, among other things, the Recovery and Resilience Facility (RRF, EU Regulation 2021/241), which is also aimed at the ecological transition; think again of the package of measures “Ready for 55%” (Fit for 55), which contains a series of proposals including the preparation of a Social Fund for the Climate (see in this regard D. BEVILACQUA, *“Pronti per il 55%”? L'obiettivo climatico dell'UE e gli strumenti per raggiungerlo*, in *Riv. giur. amb.*, 28 gennaio 2022, in www.rgaonline.it; the aforementioned EU Regulation 2021/1119, the so-called climate law; the European Climate Pact; the 2030 Climate Target Plan; the New EU Strategy on Adaptation to Climate Change; the Regulation (EU) 2021/1056 of the European Parliament and of the Council of 24 June 2021 which establishes the Fund for a just transition, in art. 8, paragraph 2, lett. j); the Regulation (EU) 2020/852 on the so-called taxonomy of eco-sustainable investments, whose art. 1 defines the circular economy as “an economic system in which the value of products, materials and other resources in the economy is maintained for as long as possible by improving their efficient use in production and consumption, D. BEVILACQUA, *Il Green Deal, l'economia circolare e lo “Stato conformatore”*, in *Riv. giur. amb.*, 3 gennaio 2023, in www.rgaonline.it); the European Industrial Strategy; the Circular Economy Action Plan; the New European Bauhaus; the Farm to Fork Strategy on Sustainable Food Systems, Brussels, 20.5.2020, COM(2020) 381 final; the REPowerEU strategy, Brussels, 18.5.2022 COM(2022)

neutrality¹² in the EU by 2050, has placed environmental sustainability at the center of the European development paradigm¹³ and the energy transition. It cannot be denied that the phenomenon of climate change has indeed taken on ever more impressive dimensions in recent years. The concern that has arisen from the economic and social consequences of climate change accelerated by human interventions has prompted the construction, at national and international level, of regulations aimed both at reducing climate-altering gases and at promoting a wide range of energy transition policies, with the objective of gradually leading to the abandonment of fossil fuels, in favor of an increasingly massive use of energy from renewable sources.

230 final {SWD(2022) 230 final; lastly, the Green Deal Industrial Plan, presented on 1 February 2023, i.e. an industrial plan for achieving climate neutrality, Brussels, 1.2.2023 COM(2023) 62 final, A Green Deal Industrial Plan for the Net-Zero Age.

¹² See the art. 1, co. 2, Reg. 2019/1119/EU, which “establishes the binding objective of climate neutrality in the Union by 2050”, in compliance with what is established at an international level by the Paris Agreement. It is recalled here that the Paris Agreement – also known as the Paris Outcome, as a combination of two documents: the decision of the Cop (Paris COP decision) and the Paris Agreement (Paris Agreement), which formally constitutes an annex to the decision – defines the global response to climate change. Adopted by 195 countries in Paris in December 2015, ratified by the EU with Council decision (EU) 2016/1841 of 5 October 2016, it replaces the 1997 Kyoto protocol. See in this regard, close to its approval, A. MONTINI, *L'accordo di Parigi sui cambiamenti climatici*, in *Riv. giur. amb.*, n. 4/2015, pp. 517 ss.; for a more precise analysis of the deal, L. ARISTEI, *L'Accordo di Parigi: obiettivi e disciplina*, in *RQDA*, n. 3/2017, pp. 73 ss.; G. ÇAPAR, *What Have the Green New Deals to Do With the Paris Agreement? An Experimental Governance Approach to the Climate Change Regime*, also in the monographic issue of *RQDA*, n. 1/2021, pp. 141 et seq.

¹³ The Green Deal is closely related to environmental sustainability, oriented above all to the protection of life, today and in the future. Essential, from this point of view, the essay by di M. MONTEDURO, *La tutela della vita come matrice ordinamentale del diritto dell'ambiente (in senso lato e in senso stretto)*, in *RQDA*, n. 1/2022, pp. 423 ff., spec. pp. 439-441: «The EU Green Deal therefore intervened in the face of a completely changed scientific and real framework compared to the one considered at the time of the drafting (first) and the revision (then) of the Treaties: a very serious situation is now recognized of ecological emergency, deriving from the transgression of many of the planetary limits, first of all those relating to the climate and biodiversity, so that - to take up what was mentioned above in this article - it is no longer only the expansive dimension of life that is threatened, that of development, but even the minimum dimension, that of the survival of individuals or communities, already for the present generations and, even more, for future ones, with catastrophic risks of no return. It is no coincidence that the “European Climate Law” (Regulation (EU) 2021/1119 of 30 June 2021 which establishes the framework for the achievement of climate neutrality) begins, in Recital n. 1, precisely highlighting “the existential threat” to humanity represented by the climate crisis».

If originally the problem was limited to the environmental sustainability of advanced economic systems, between 2020 and 2022 many issues of globalization have come home to roost. The pandemic has brought to light critical issues inherent in the excessive length of the

so-called “global value chains”¹⁴, which have proved to be too exposed to its repercussions¹⁵ and inherently fragile¹⁶.

¹⁴ The global value chains, better known as GVCs (acronym of the English Global Value Chains), are all forms of economic activity in which the production of a good and/or service is shared among different countries: the lemma is, therefore, to indicate the productive fragmentation. For example, Apple builds its electronic devices following a typical structure of GVCs: the design takes place in California, the components are produced in various countries, to then be assembled in China. From the perspective of the GVCs, the greater articulation of world production, due to the fragmentation and globalization of production processes, translates neither into a lower concentration of economic power nor into less hierarchical organizational relations: see in this regard the studies of G. GEREFFI, *Global Value Chains and Development. Redefining the Contours of the 21st Century Capitalism*, Cambridge, 2018; e ID. ET AL., *The Governance of the Global Value Chains*, in *Review of International Political Economy*, vol. 12, no. 1, 2005, pp. 78-104; in Italia, v. L. GRECO, *Capitalismo e sviluppo nelle catene globali del valore*, Roma, 2016. The possibility of fragmenting production at a global level originates from two factors: the first, technological, includes the improvement of telecommunications and the collapse in shipping prices. The second is political: without freedom of movement of goods, no company could invest in production abroad without incurring exorbitant costs. Despite their diffusion, GVCs are very difficult to quantify: the effort of economists is to identify suitable calculation tools. For this reason, the study by A. BORIN, M. MANCINI, *Measuring What Matters in Global Value Chains and Value-Added Trade, Policy Research Working Paper*, No. 8804. World Bank, Washington, DC. World Bank, 2019, in <https://openknowledge.worldbank.org/handle/10986/31533>, in which an algorithm for calculating the supply-demand flow in global value chains is elaborated. Starting from data on international trade, the algorithm allows to measure how much two countries trade with each other within the GVCs. The World Bank therefore estimated that global value chains accounted for 45% of world trade in 2015: the equivalent of about 10.7 trillion dollars, more than half of Europe’s GDP, amounting to about 16.5 trillion euros in 2019 (see https://www.rgs.mef.gov.it/VERSIONE-I/e_government/amministrazioni_pubbliche/igrue/PilloleInformative/economia_e_finanza/index.html?Prov=PILLOLE#stat1).

¹⁵ The link between the pandemic and global value chains, as well as between these and new events with a global impact (most recently, the Russia-Ukraine conflict) is the subject of numerous economic studies: allow reference to E. DI STEFANO, *COVID-19 and Global Value Chains: the Ongoing Debate*, in *Questioni di Economia e Finanza*, Paper of the Bank of Italy, n. 618, April 2021, in https://www.bancaditalia.it/publicazioni/qef/2021-0618/QEF_618_21.pdf, for which the pandemic has affected the GCVs in terms of production, that of demand, as well as the profile financial credit and policies: «The COVID-19 shock hit GVCs through several channels. On the supply side, firms had to slow or stop their production due to social distancing rules imposed in the country where they were located or in the countries where their trading partners were located. [...] Another channel is via pandemic-induced changes in demand, which were very heterogeneous across sectors and countries. Demand for some key medical supplies surged, while that for personal and recreational services faced a halt or shifted to similar goods and services (for example, home delivery versus restaurants). [...] In contrast, during the global financial crisis, the nature of the shock and the channels of transmission were very different. In that case, the credit channel had a central

Of course, the response to the pandemic by the American government and the European Union, with substantial support for the real economy and the preparation of ambitious plans to relaunch the economy, above all the Next Generation EU, have made it possible to counteract most of the consequences harmful to the pandemic.

These steps in the direction of support for the economic and market circuit were counterbalanced by undoubted “exuberances” of the Western economic-financial systems – especially the United States – which, during 2021, gave a strong boost to the accelerator of

role. [...] Finally, in the current crisis there may also be a policy channel at play. Export bans were at some point imposed on key medical supplies and there is growing pressure in public debates to renationalize certain productions in the belief that this will promote greater security of supply» (pp. 12 ff.). See also the reflections of the economist the nature of the shock and the channels of transmission were very different. In that case, the credit channel had a central role. [...] Finally, in the current crisis there may also be a policy channel at play. Export bans were at some point imposed on key medical supplies and there is growing pressure in public debates to renationalize certain productions in the belief that this will promote greater security of supply» (pp. 12 ff.). See also the reflections of the economist the nature of the shock and the channels of transmission were very different. In that case, the credit channel had a central role. [...] Finally, in the current crisis there may also be a policy channel at play. Export bans were at some point imposed on key medical supplies and there is growing pressure in public debates to renationalize certain productions in the belief that this will promote greater security of supply» (pp. 12 ff.). See also the reflections of the economist Export bans were at some point imposed on key medical supplies and there is growing pressure in public debates to renationalize certain productions in the belief that this will promote greater security of supply» (pp. 12 ff.). See also the reflections of the economist T. SMID, *Le catene globali del valore colpite da Covid e guerra*, 24 May 2022, in <https://atradius.it/pubblicazioni/economic-research-global-chains-of-value.html>.

¹⁶ Just the blockage of the Suez Canal due to the stranding of the Ever Given cargo ship, which took place on March 23, 2021 and lasted for six days, testifies to the fragility of the supply chain, being that a goods sorting point of global importance. The immediate damage associated with the blockade was estimated to amount to about \$400 million per hour. The vessel remained in Egyptian waters for three months, with the Suez Canal Authority and the vessel’s owner, Japanese Shoen Kisen Kaisha, engaged in a battle over compensation for the accident. Once cleared in July, the vessel then steamed slowly to northern Europe, where she severely unloaded her cargo, before returning across the channel to northern China, where extensive repairs were carried out L. PELLERANO, *March 2021: the m/n Ever Given case makes the world rediscover the importance of maritime traffic*, in *Dir. mar.*, n. 1/2021, pp. 230 ff.

inflation – especially on the prices of energy commodities¹⁷ – that, despite the contrary opinion of the central bankers¹⁸, proved to be anything but fleeting¹⁹.

The return of war to Europe on 24 February 2022 then transformed the energy transition from fossil fuels to RES (Renewable Energy Sources) a necessity not only for the environment but for real national security and strategic autonomy. The economic war against Russia following the degeneration of the low-intensity conflict that had been going on in Ukraine since 2014 resulted in a substantial reduction in the percentage share of gas supplies from Russia to Italy from 38% in 2021 to 20% in the first ten months of 2022, offset by higher purchases in the rest of Europe (from 2 to 11%), LNG (from 14 to 18%), as well as from Azerbaijan (from 9 to 14%), and Algeria (from 28 to 14 30%), while the other sources remained substantially unchanged²⁰. Despite the numerous attempts, actually very

¹⁷ In this regard, see the note from the Confindustria Study Centre, no. 1/2022 of 17 January 2022, edited by M. BECCARELLO and C. RAPACCIUOLO, *The increases in commodity prices, especially gas and electricity, risk blocking businesses*, in <https://www.confindustria.it/home/centro-studi/temi-di-ricerca/congiuntura-e-previsioni/tutti/dettaglio/increased-commodity-gas-and-electricity-prices-risk-blocking-companies>. The topic was recently addressed in a conference held during the 9th Limes festival in Genoa, 11-13 November 2022, accessible in video recording at the address <https://youtu.be/PWCzQtD8II8>.

¹⁸ Indeed, the ECB reacted with a certain delay to inflation, since – at the beginning of 2022 – its President, Christine Lagarde, had declared in an interview with France Inter that any intervention would be worsening the existing conditions, since a – albeit slow – decline in inflation throughout 2022 and also in 2023. What follows is there for all to see. He talks about it T. MONACELLI, *La Bce e l'inflazione testarda* in *La Voce*, 29 October 2022, in <https://www.lavoce.info/archives/98471/la-bce-e-lfiamma-testarda/>.

¹⁹ On the other hand, the first peak in gas prices at the Title Transfer Facility (commonly known as TTF) in Amsterdam dates back to December 21, 2021, which shows that energy hunger is not strictly related to the conflict in Ukraine alone.

²⁰ For more information on the complex issue of the gas market, please refer to position paper no. 229 of the REF Ricerche Laboratory, *Il mercato del gas naturale: dall'emergenza al prossimo futuro*, 20 December 2022, in <https://laboratorioref.it/il-mercato-del-gas-naturale-dalleducazione-al-prossimo-futuro/>. See also, for the electricity market, position paper no. 219, *The electricity market between price cap and market design review*, 15 September 2022, in <https://laboratorioref.it/il-mercato-elettrico-tra-price-cap-e-revisione-del-market-design/>.

successful, to obtain new sources of supply via pipeline from Algeria²¹ and Azerbaijan²² and LNG from the USA and Qatar²³, in the coming years it will be necessary to push with conviction on renewable sources in order to fill the shortage of supplies from Moscow. If the reduction of Russia's role has been relatively rapid, if one thinks of the contractual complexity and the rigidity of the huge gas infrastructure system, this is not painless and is certainly related to the explosion in prices recorded between spring and summer last year due to the urgent need to find gas to put into storage.

In 2022, gas reached exorbitant prices and electricity (produced mainly by gas turbine plants) also followed the same dynamics as the precious "blue gold". The disproportionate increase in the cost of energy has hit businesses and consumers alike²⁴, for this reason private

²¹ The visit of the current Prime Minister Meloni to Algeria on 24 January 2023 for the launch of the GALSI project (Gasduct Algeria Sardinia Italy), for the construction of a pipeline between Algeria and Sardinia that will transport natural gas, as well as hydrogen and ammonia. A few days earlier, on 11 January, Snam completed the purchase of 49.9% of the equity investments held (directly and indirectly) by Eni in the companies that manage the two groups of international gas pipelines that connect Algeria to Italy.

²² On July 18, the European Union signed an agreement with Azerbaijan to double Azerbaijani natural gas imports to at least 20 billion cubic meters per year by 2027. The Turkish state becomes a key partner in EU efforts to abandon Russian fossil fuels. Indeed, the EU is looking for alternative suppliers to Russia, following Moscow's invasion of Ukraine and the political decision to say goodbye to imported fossil fuels from Russia by 2027 at the latest. According to the European Commission, Azerbaijan is already increasing natural gas deliveries to the EU from 8.1 bcm recorded at the end of 2021 to 12 bcm expected in 2022, reads the note from the EU Executive, released at https://ec.europa.eu/commission/presscorner/detail/en/ip_22_4550.

²³ The data obtained by Bloomberg from the global monitoring of methane tankers in 2022 place the liquid gas exports of the US and the Emirate at exactly the same level: 81.2 million tons, in <https://www.quotidianoenergia.it/module/news/page/entry/id/487071/gnl-nel-2022-qatar-e-usa-principali-esportatori-mondiali>.

²⁴ The supranational dimension of the phenomenon is there for all to see. Recently, an article in the French newspaper *Le Monde*, dated 6 January 2023, entitled *L'énergie est un bien commun et doit le rester*, indicating the idea of the common good as an antidote to the dizzying rise in energy prices, which it also infringes on the quality of life of citizens, seen not only as private final consumers, but also as part of a wider community, which must have easy access to public services: «*Comment payer? Pouvons-nous continuer à faire vivre nos services publics locaux et assurer l'ensemble de nos missions? Doit-on choisir entre la réfection d'une route ou la construction d'une nouvelle école, l'aide à nos seniors ou des crèches pour nos enfants? Nous ne pouvons plus simplement nous interroger, nous devons agir et obtenir des réponses car, tous les jours, les conséquences de la flambée des prix de l'énergie, nous*

individuals and SMEs have worked to differentiate their energy supply systems especially through RES, much encouraged by governments and the European Union. Energy production systems such as self-consumption groups, citizen energy communities and renewable energy communities have attracted particular attention in light of the needs that emerged last year. Thus, for mainly economic reasons, a substantial boost has been given to the ecological transition, mind you, by necessity and not by virtue, the energy conversion process wanted by the EU has been accelerated, and the Energy theme is now at the center of the media debate and political.

Now, in the mosaic of energy transition policies, the Renewable Energy Communities (ERCs) undoubtedly constitute an important piece. These realities introduced by directive 2018/2001/EU (*Renewable Energy Directive* – so-called RED II) contribute to promoting an ever wider and more widespread diffusion of the production and consumption of energy from renewable sources, according to an innovative approach, which starts “from the bottom”, actively involves citizens, making them responsible for consumption and making them central to the production of clean energy. This is a fundamental step, because only by making citizens aware and giving them a proactive role in the energy transition is it reasonable to think that we can achieve the ambitious decarbonisation goals set at European level²⁵. As is evident, we are facing a real breaking point with respect to the traditional method of producing and distributing energy, historically centered on large plants. However, the potential of ERCs does not end there. These realities can play a central role in the creation of real communities, which aim to generate social, environmental and economic benefits not only for their members, but also for the territorial realities in which the ERCs are located and develop . Well, the establishment of a Renewable Energy Community becomes a precious

les voyons et les vivons concrètement», in https://www.lemonde.fr/idees/article/2023/01/02/l-energie-est-un-bien-commun-et-doit-le-rester_6156327_3232.html.

²⁵ First of all, the European legislator is aware of this, who – in recital (Whereas) no. 70 of Directive 2018/2011, the so-called RED II – states as follows: «The participation of local citizens and local authorities in renewable energy projects through renewable energy communities has resulted in substantial added value in terms of local acceptance of renewable energy and access to additional private capital which results in local investment, more choice for consumers and greater participation by citizens in the energy transition. Such local involvement is all the more crucial in a context of increasing renewable energy capacity. Measures to allow renewable energy communities to compete on an equal footing with other producers also aim to increase the participation of local citizens in renewable energy projects and therefore increase acceptance of renewable energy».

opportunity to revitalize the economy of marginal areas, often characterized by a growing trend towards depopulation, to improve the quality of life of the inhabitants and to build and implement projects and interventions of social utility.

3. IN PARTICULAR, THE ERCs: JURIDICAL BASIS AND DISCIPLINE

Renewable Energy Communities (ERCs)²⁶, represent, as mentioned, an innovative model of collaboration²⁷ between citizens, businesses and administrations in the production and

²⁶ We focus here on the ERCs, but do not forget that these are not the only legally possible configuration, being supported at least by the CEC (Energetic Communities of Citizens). The two *figurae* are very similar, differing substantially in the benefit from renewable or non-renewable plants: the ERCs are groups of citizens who benefit from the energy produced by renewable plants located near their homes (for example, the photovoltaic panels of a school, could supply electricity to nearby houses); conversely, the CECs can only implement electricity management policies that are not necessarily produced with renewable sources.

But this is not the only relevant profile. «The EU directive 2018/2001 dedicated the articles 21 and 22 to the involvement of consumers as self-producers of energy necessarily from renewable sources, defined as prosumers, who are granted the right to self-produce, store and sell energy individually and in groups, defined as renewable energy communities (ERCs), while the EU directive 2019/944 defines the citizens' energy community (CEC) which manages only electricity produced from renewable and non-renewable sources, but is devoid of autonomy and with geographical limitations for production and consumption», thus differentiates M. ROMEO, *Produzione di agroenergie, autoconsumo collettivo e comunità energetiche*, in *Dir. giur. agr. alim. amb.*, n. 4/2021, www.rivistdga.it, pp. 1 ss., cit. p. 4.

For an analytical profiling of the two community models, see the contribution of E. CUSA, *Il diritto dell'Unione europea sulle comunità energetiche e il suo recepimento in Italia*, in *Riv. trim. dir. econ.*, n. 2/2020, pp. 287 ss., which identifies more similarities than differences between them. In particular, according to the Author, ERC and CEC resemble each other in seven respects: they are legal subjects distinct from their components; substantially pursue the same purposes; they are completely open organizations; they must offer the goods and services they produce to anyone; they are energy entrepreneurs and therefore "companies" according to EU law; they cannot be controlled by PP.AA.; they can enter into agreements with anyone to further their ends. Conversely, ERCs and CECs differ in five respects: (i) the requirements of their members; (ii) their energy activities; (iii) their democratic structure; (iv) the ownership of energy production facilities; (v) the presence of a territorially defined community.

²⁷ More extensively on the subject, see M. BOLOGNESI, A. MAGNAGHI, *Verso le comunità energetiche*, in *Scienze del territorio*, special issue *Abitare il territorio al tempo del Covid*, 2020; V. PEPE, *Le "comunità energetiche" come nuovi modelli giuridici di sviluppo sostenibile*, in *Rivista Giuridica AmbienteDiritto.it*, n. 3/2022.

sharing of renewable energy in an equal dimension²⁸. These realities are based on the assumption that anyone – public or private, company or citizen, producer or consumer – through the use of the collaborative tool, establishing or being part of the Community, can be both producer and consumer of energy at the same time; in fact, the ERCs mark a change of pace with respect to the traditional method of producing and distributing energy, without distorting the electrical infrastructures already available – optimizing, rather, their exploitation. The members of the Community, therefore playing an active role in the management of energy flows, are called «prosumers»: the noun derives from the crisis between the two English terms «consumer» and «producer», since each of them, owning an energy production plant, consumes it needs and feeds the excess energy produced into the grid²⁹. This is not only “transferred to the network”, but can be exchanged with other

²⁸ The equal dimension of the partnership between these parties is clearly deduced from the European and state regulatory framework that governs the ERCs, where these are designed as legal entities whose members are free to join or not to the formation-Community, as well as to leave it. See art. 2, par. 1, no. 16), Dir. 2018/2001/EU, whereby renewable energy communities are a legal entity which «is based on open and voluntary participation, is autonomous and is effectively controlled by shareholders or members who are located in the vicinity of the production of energy from renewable sources that belong to and are developed by the legal entity in question; whose shareholders or members are individuals, SMEs or local authorities, including municipalities; whose primary objective is to provide community-wide environmental, economic or social benefits to its shareholders or members or to the local areas in which it operates, rather than financial profits. The provision is thus implemented by the state regulatory text (art. 31, legislative decree n. 199/2021).

Undoubtedly, the open nature of the ERCs indicates equality between the parties, but it is believed that the most indicative point of this aspect lies in the fact that the control of the legal entity is independent of the intrinsic quality of the party (administration or private, whether consumer or producer in the market or company, it doesn't matter) and is based, rather, on the criterion of territorial proximity to the renewable energy production plants.

On the point v. also C. MARI, *Le comunità energetiche: un nuovo modello di collaborazione pubblico-privato per la transizione ecologica*, in *Federalismi.it*, n. 29/2022, spec. p. 114: «the public and private entities that are part of the energy community are placed in a condition of substantial equality, in which the different juridical positions are placed on the same level and in a symmetrical way».

²⁹ The term *prosumer* owes its coining to A. TOFFLER, *The Third Way*, New York, William Morrow, 1980, transl. it. ed. by L. BERTI, *La terza ondata*, Milan, 1987. According to what was theorized by Toffler, prosumers are individuals who produce some of the goods and services that they themselves consume. Reconstructs the thesis well P. KOTLER, *The Prosumer Movement: a New Challenge For Marketers*, in *NA - Advances in Consumer Research Volume 13*, eds. Richard J. Lutz, Provo, UT: Association for Consumer Research, pp. 510 ff., 1986: «Toffler defines prosumers as people who produce some of the goods and services entering their own consumption. They can be found making their own clothes, cooking their own food, rearing their own cars, and hanging their own wallpaper. All of these services could be purchased in the marketplace and in fact, most people today purchase these goods and

participants in the Community and transferred to third parties³⁰. In the figure of the prosumer, the ERC component not only satisfies its own needs, at the same time it promotes environmental sustainability thanks to the use of renewable sources and limits the

services from others. This is the essence of being a consumer. The essence of being a prosumer, on the other hand, is to prefer producing one's own goods and service». The A. distinguishes the three "waves" described by Toffler based on consumer behavior: «The dominant process of First Wave societies is self-production, the norm is survival, and the social nexus is kinship, friendship, tribe. The Second Wave occurred with the Industrial Revolution in England. The factory became the dominant institution [...]. With industrialization and marketization, people increasingly become specialized producers and are increasingly unable to produce almost anything else, even cooking well. Toffler sees the post-industrial age as moving toward a syntheses of First and Second Wave societies, which he calls the Third Wave. The dominant institution in Third Wave societies is the home, or electronic cottage, in which most people carry on their own production and consumption. Toffler sees the dominant process in Third Wave societies to be demarketizations including demassification as well». According to the Author, if Toffler had been right, this would have resulted in a challenge for the market, which would have developed two figures of prosumers: one aimed at self-production as a hobby; the other to self-production out of necessity, avoiding massification.

For further details see also K. CSERES, *The Active Energy Consumer in EU Law*, in *European Journal of Risk Regulation*, n. 2/2018, pp. 227 ss.; A.M. BENEDETTI, *Lo scambio dei ruoli ovvero l'utente che produce energia: la regolazione convenzionale dello «scambio sul posto»*, in G. NAPOLITANO, A. ZOPPINI (a cura di), *Annuario di diritto dell'energia. Regole e mercato delle energie rinnovabili*, Bologna, 2013, pp. 189-198.

³⁰ As reported by R. MICCÙ, M. BERNARDI, *Premesse ad uno studio sulle Energy communities: tra governance dell'efficienza energetica e sussidiarietà orizzontale*, in *Federalismi.it*, n. 4/2022, p. 617, this contributes to the creation of a market which to a top-down system, controlled by the public authorities, prefers an accumulation of «bottom-up local actions and spontaneous initiatives by the new market players, who place themselves in the middle of the ford of the energy transition, between environmental, social and regulatory issues: in stimulating the growth of local energy production and the efficiency of the entire system, prosumers and energy communities contribute to outlining a framework in which the energy dependence of consumers is greatly reduced».

Significant in this sense is the contribution of A. BUTENKO, *User-centered innovation and regulatory framework: energy prosumers' market access*, in *Eu regulation*, n. 2/2016, which identifies the characterizing feature of the emerging energy market model in the so-called user-centered innovations, despite the current weakness of prosumers: «Despite its growing occurrence, the prosumerism of energy (also referred to as self-supply) is still relatively marginal compared to the 'traditional' top-down model of energy supply- that is, consumers procuring energy from energy suppliers- and its share in the total energy mix is far from significant. [...] Currently prosumers are not self-sufficient in most cases, both because their demand could exceed their production, and because the moments of demand often do not coincide with the moments of production (in the absence of storage): eg during the day, when the production of solar panels is at its peak, many prosumers are away from home, and thus not able to consume. As a consequence, these prosumers still have a connection to the grid (be it electricity, gas, or heat) as a backup», see p. 6.

consumption of electricity produced from gas in times when the supply of this precious commodity it's difficult³¹.

The set of users who, through voluntary acceptance of a contract, can collaborate with the aim of producing, self-consuming and placing the excess energy produced on the market, in accordance with current legislation, can be private citizens (units housing), SMEs, professional firms, local authorities and third sector bodies³².

³¹ Without a doubt, however, this activity of the prosumer must be encouraged: in other words, the consumer's interest in producing and consuming energy must be reflected in economic or tax incentives, so as to make the emphasis on the mutual purpose more marked. See the observations of E. CUSA, *Il diritto dell'Unione europea*, cit., spec. p. 325.

³² Moreover, for the same third sector entities, a system of aid has been set up precisely in terms of high bills: decree law 144/2022 (so-called Aiuti-ter decree) has taken care of it, whose art. 8 – following the conversion with l. 17 November 2022, no. 175 – known as «Urgent provisions in favor of third sector entities». In particular, in paragraph 1: 'In consideration of the increase in the costs of thermal and electrical energy recorded in the third quarter of the year 2022, a special fund is established [...], with an endowment of 120 million euros for the year 2022, aimed at the recognition, within the aforementioned expenditure limits and in proportion to the increase in costs incurred with respect to the same period of the year 2021, of an extraordinary contribution in favour of the Third Sector entities registered in the single national Third Sector Register [...] of voluntary organisations and associations for social promotion [...], non-profit organisations of social utility [...], registered in the relevant register and civilly recognised religious bodies, which provide social-health and social-welfare services in residential or semi-residential settings for people with disabilities'.

Only two days later, Decree Law No. 176 of 18 November 2022 (the so-called Aid-quater decree) intervened, which, in Article 3, 'Support measures to cope with high utility bills', paragraph 12 of which increases the allocation in favour of the Third Sector. In particular:

- it increases from 120 to 170 million the fund for the support against high utility bills destined to 'third sector organisations and civilly recognised religious organisations that manage social and social services in residential and semi-residential settings for people with disabilities'. These additional 50 million are earmarked for third sector organisations (with specific prerequisites) that run services for the elderly. This is the fund envisaged by Article 8, paragraph 1 of Law Decree aiuti-ter.

- increases from 50 to 100 million the contribution for other odv, aps and onlus "for the recognition of an extraordinary contribution calculated in proportion to the costs incurred in 2021 for the energy and natural gas component" provided for by Article 8, paragraph 2, d.l. aiuti-ter.

Only two days later, the legislative decree 18 November 2022, n. 176 (so-called Aiuti-quater decree) which, in art. 3, "Support measures to deal with high bills", paragraph 12 of which increases the allocation in favor of the Third Sector. Particularly:

From a strictly regulatory point of view, Directive 2018/2001/EU (RED II) is the European source which, as mentioned, first regulates renewable energy communities and goes hand in hand with Directive 2019/944/EU (relating to common standards for the internal electricity market), which instead focuses on the energy communities of citizens. The RED II Directive, setting by 2030 the ambitious goal of setting the minimum threshold of energy produced from renewable sources at 32% that each EU country should use to meet its national energy needs, provides in art. 22 a detailed discipline on energy communities, not failing to underline that the collaborative relationship between public and private subjects is essential to be able to make the ERC “live”³³.

In the domestic dimension, the process of transposition and implementation of Community legislation was divided into two phases.

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- increases from 120 to 170 million the anti-expensive bill support fund intended for “third sector entities and civilly recognized religious entities that manage social, health and social services carried out in a residential, semi-residential regime aimed at people with disabilities”. These additional 50 million are intended for Third Sector entities (with specific requirements) that manage services for the elderly. This is the fund envisaged by article 8 paragraph 1 of the aiuti-ter.
 - increases from 50 to 100 million the contribution for other SBs, local authorities and non-profit organizations “for the recognition of an extraordinary contribution calculated in proportion to the costs incurred in 2021 for the energy component and natural gas” provided for by article 8 paragraph 2 of the aiuti-ter.

³³ The art. 22 paragraphs 1 and 2 of Directive 2018/2001/EU provides as follows: «1. Member States shall ensure that final customers, in particular household customers, have the right to participate in renewable energy communities while maintaining their rights or obligations as final customers and without being subject to unjustified or discriminatory conditions or procedures which would prevent their participation in a renewable energy community, provided that, as regards private enterprises, their participation does not constitute the main commercial or professional activity.

2. Member States shall ensure that renewable energy communities have the right to: (a) produce, consume, store and sell renewable energy, including through renewable electricity trading agreements; b) exchange, within the same community, the renewable energy produced by the production units owned by that renewable energy producer/consumer community, without prejudice to the other requirements of this article and the maintenance of the rights and obligations of the members of the renewable energy producer/consumer community as customers; (c) access all appropriate electricity markets, directly or through aggregation, in a non-discriminatory manner».

The first coincided with a – so to speak – experimentation of early transposition of the Directive, which took place on 2 March 2020 with art. 42-bis, Legislative Decree 162/2019 (so-called Milleproroghe Decree 2019), converted with Law 8/2020³⁴.

The second phase is the one that still today sees the consolidation of the disciplinary lines on the subject, first through the complete transposition in Italy of the Directive by Legislative Decree no. 199/2021, issued on 8 November 2021 and entered into force on 15 December 2021; then – for the CEC – with the legislative decree n. 210/2022.

We must add that, in 2021, Italian National Recovery and Resilience Plan (Piano Nazionale di Ripresa e Resilienza – PNRR) has specified the financial resources reserved for the energy transition³⁵: it allocates 2.2 billion Euros in investments for the promotion of renewable

³⁴ Article 42-bis, «Self-consumption from renewable sources»: «1. Pending the complete transposition of Directive (EU) 2018/2001 of the European Parliament and of the Council, of 11 December 2018, on the promotion of the use of energy from renewable sources, in implementation of the provisions of articles 21 and 22 of the same directive, it is permitted to activate collective self-consumption from renewable sources or to create renewable energy communities according to the methods and conditions established by this article.[...]

2. For the purposes referred to in paragraph 1, electricity consumers can associate to become self-consumers of renewable energy who act collectively pursuant to article 21, paragraph 4, of directive (EU) 2018/2001, or can create renewable energy communities pursuant to article 22 of the same directive, under the conditions set out in paragraphs 3 and 4 and within the time limits set out in paragraph 4, letter a), of this article». The following are the technical provisions which in fact constitute the transposition of the Directive.

As regards the implementation of this legislation, the details dictated by the ARERA Resolution 318/2020 and by the MiSE decree of 16 September 2020 on the identification of the incentive tariff were indispensable, which provided a sort of transitional regime until the adoption of the provisions pursuant to Legislative Decree no. 199/2021 and no. 210/2021.

³⁵ See PNRR, available on <https://italiadomani.gov.it/en/home.html>, in particular Mission 2 (Green revolution and ecological transition), Component 2 (Renewable energy, hydrogen, and sustainable mobility), Investment 1.2.: it «focuses on supporting energy communities and collective self-production facilities and will make it possible to extend the experimentation already begun with the early transposition of the RED II Directive to a more significant dimension and to focus on areas where the greatest socio-territorial impact is expected. The investment, in fact, identifies public administrations, households and micro-businesses in municipalities with fewer than 5,000 inhabitants, thus supporting the economy of small municipalities, often at risk of depopulation, and strengthening social cohesion.

In particular, this investment aims to secure the necessary resources to install about 2,000 MW of new electricity generation capacity in a distributed configuration by renewable energy communities and self-consumers of renewable energy acting jointly.

energies through support for Energy Communities and collective self-production structures. The recipients of this investment, as members of these communities or as part of a collective self-consumption group, are local public administrations, families, and micro-enterprises. The importance of the role attributed to the climate issue in the PNRR is highlighted by the obligation to allocate at least 37% of the total resources to the ecological transition.

As far as production requirements are concerned, Legislative Decree no. 199 provides in art. 8 that can access the incentives renewable production plants that have a power not exceeding 1MW. Moreover, from 28 November to 12 December 2022 a public consultation phase was opened, called by the Ministry of the Environment and Energy Security³⁶: the points subject to consultation to which attention has been paid obviously concern the incentives for photovoltaic plants, on which a zonal correction factor of 4 €/MWh will be provided for the regions of Central Italy and 10 €/MWh for the regions of Northern Italy, as well as the sale price of energy exceeding the needs of the energy communities.

In fact, among the proposals put forward by the Ministry there is that of setting a maximum price of 80 €/MWh in the event that the share of shared energy placed on the free market is less than 70% of the total energy produced, while if the shared energy placed on the market exceeds 70% of the energy produced, the price would be left to the operator's decisions. Surely, also paying attention to the comments of the technicians involved in the work, the proposals on the table are interesting and full of ideas but, since they are still in the embryonic stage, they require greater and more careful regulatory provision.

The realisation of these measures, assuming they concern photovoltaic plants with an annual output of 1,250 kWh per kW, would produce about 2,500 GWh per year and contribute to an estimated reduction in greenhouse gas emissions of about 1.5 million tonnes of CO₂ per year. To achieve higher shares of energy self-consumption, these configurations can also be combined with energy storage systems» (see p. 133, PNRR).

³⁶ Public consultation on the implementation of the discipline for the regulation of incentives for energy sharing pursuant to article 8 of legislative decree 8 November 2021, n. 199 (Energy communities and self-consumption systems – power plants up to 1 MW), in <https://www.mase.gov.it/bandi/consultazione-pubblica-attuazione-della-disciplina-la-regolamentazione-degli-incentivi-la>.

Meanwhile, the most recent regulatory contribution on ERCs came from the Regulatory Authority for Energy, Networks and the Environment (henceforth, ARERA)³⁷, which with resolution 727/2022/R/eel of 27 December 2022, instead defined a further aspect, that relating to the regulation of widespread self-consumption, as required by Legislative Decree no. 199/'21 and by Legislative Decree no. 210/'21, approving the related integrated text (Tiad).

As already anticipated at the beginning of the contribution, by «widespread self-consumption» we mean the energy supply obtained from plants, also managed by third parties, which, although available and under the control of the representatives of the respective communities or self-consumption groups, produce energy in places physically distant from the actual place of use.

The resolution determines the calculation methods for determining the incentives (also by virtue of the energy dispersion deriving from the distance between the place of production and the connection point), but not only: it specifies that plants connected with a direct electricity line cannot be located at a distance of more than 10 km from the actual place of availability of the prosumer, thus also drawing boundaries limited to the “same market area” for the plants that use the distribution network.

The picture that emerges so far is that of a system that is preparing to welcome a more widespread diffusion of energy self-consumption communities: now by elaborating authorization procedures, now by designing their possible legal form, now by encouraging their use and implementation through specific tariff arrangements.

4. THE MUNICIPAL DIMENSION OF THE ERCs

³⁷ On the regulatory value of the ARERA resolutions and – more generally – on the issue of placing in the system the sources of the regulatory provisions issued by the independent Authorities, it is allowed to refer to P. PANTALONE, *Autorità indipendenti e matrici della legalità*, Naples, 2018. The monographic work brings together bibliographic and jurisprudential references on the issue of compatibility between the implicit powers of the Authorities and the principle of legality, expressly dedicating a large part of the reflections to ARERA.

Local administrations have been hit, like households and businesses, by the excessive prices of energy supplies. In fact, during 2022 the energy costs of the PA has increased by 57%, with costs of over 5.2 billion euros³⁸. Of the total figure, the greatest weight was borne by the Municipalities, with a wholesale of 3 billions, to which must be added the 98 millions of the metropolitan cities. The local administrations that suffered the most from the price increase were the southern ones, where there is a chronic shortage of cash, less self-sufficiency and greater dependence on State transfers. These extra costs have imposed the need to find structural solutions for the supply of low-cost energy for the urban fabrics in their entirety, not only households and businesses but also the PA, giving a strong acceleration to the energy transition.

The constant development of renewable electricity generation (photovoltaic, wind and biomass) is the condition for creating local energy systems for the production and consumption of electricity. Sharing local energy production leads to an increase in its economic and social value: it reduces bill costs, fights energy poverty, develops the local economy while maintaining local profits, stimulates energy awareness and culture among citizens and local administrations. We are undergoing a paradigm shift compared to the old “top down”, the “collective creation of public value” becoming central³⁹, because it is no longer up to central administrations alone to create value but to the Community as a whole with a strongly collaborative dimension for the best realization of the public interest⁴⁰.

Local administrations, the closest to citizens, to the needs of the administered community, are called to govern the process of building energy communities through the enhancement of the skills of local stakeholders towards the desirable (re)municipalization of energy services.

Together with citizens and businesses, the PAs have the opportunity to (re)build cohesive and more responsible local communities (aware of the sustainability or otherwise

³⁸ The data was processed by Officine Cst for *MF-Milano Finanza*, 11 february 2023.

³⁹ M. MAZZUCATO, *Missione economia. Una guida per cambiare il capitalismo*, Roma-Bari, 2021.

⁴⁰ *Ibid.* In particular, according to the Author, «by reorienting our economy – putting the concepts of common good and public value at the center of production, distribution and consumption – we will be able to shape and co-create the economy in order to produce a more inclusive and sustainable society».

of their consumption) which will be able to develop shared projects for the benefit of the community. As will be better seen below, among the purposes, in addition to the production and sharing of energy, the ERCs have those of combating energy poverty⁴¹, with interventions aimed at energy efficiency and the implementation of electric vehicle recharging infrastructures or flexible services for its members⁴². What has been said can only follow the same objectives of the local administrations.

In the collaborative dimension of the local community, citizens, businesses and administrations can act in concert to create the community for the benefit of the participants and the community. On the private front, citizens can promote the establishment of ERCs and companies can be part of the community or play a management role as “external” subjects; on the public side, administrations can participate or limit themselves to supporting the implementation of projects.

Promoting the production of renewable energy in order to abandon fossil fuels for the energy transition can take the form of a new form of public-private partnership based on the principle of horizontal subsidiarity and in particular on art. 118, paragraph 4 of the Constitution, which requires local authorities to encourage the autonomous initiative of citizens for activities of general interest.

The participation of public entities in ERCs as contributor and member could have significant value. The participating Administration as a prosumer, like private citizens or SMEs, would assume the role of guaranteeing the goodness and stability of the project from an organizational and economic point of view, as well as providing suitable spaces for the installation of systems (think to the large flat roofs of municipal buildings) and skills that can support citizens, often in conditions of information asymmetry with respect to businesses and administrations⁴³.

⁴¹ See the recital (whereas) n. 67 of Directive (EU) 2018/2001.

⁴² Art. 31, paragraph 1, lett. f), of Legislative Decree no. 199/2021.

⁴³ A. PERSICO, *Le comunità energetiche e il ruolo sussidiario delle pubbliche Amministrazioni territoriali*, in *Ambientediritto.it*, n. 2/2022, pp. 1-18.

5. COLLECTIVE PARTICIPATION: A PUBLIC-PRIVATE PARTNERSHIP MODEL

Within the ERCs, a collaboration between public and private is formed, as in the forms of PPP envisaged by the Code of Public Contracts, where the private subjects admitted to participate assume a leading role by becoming protagonists of the production of energy in a system distributed on the municipal area (within the limits of the pertinent substation), contributing to the achievement of individual and collective energy needs, as foreseen in particular by decree no. 199/2021 to art. 31, para. 1, lett. b)⁴⁴.

The central role of citizens (*prosumers*) emerges, to whom the right to promote initiatives is recognized, without basing this power on the socio-economic condition, therefore on the financial capacity to be able to bear the costs of installing the systems and their connection to the network. The regulation makes participation in renewable energy communities open to all consumers, including those with low incomes or vulnerable ones, with the aim of achieving social inclusion, involving not only wealthy users or businesses but also low-income families, with the direct aim of combating energy poverty.

Well, through the widest possible involvement of citizens through the ERCs, renewable energies are put at the service of the community, helping to abandon the use of fossil fuels and protect them from the volatility of their prices. The figure of producer/consumer, being put in a position to satisfy their individual energy needs, also contributes at the same time to the collective benefit by sharing the utility achieved and the responsibilities with the public administration, in compliance with the shared administration models⁴⁵.

In order for this level of awareness and citizen involvement to be achieved, we must look, as mentioned, at the role that the Administrations can play. In order for a fruitful

⁴⁴ The article establishes that: «the community is a subject of autonomous law and the exercise of control powers belongs exclusively to natural persons, SMEs, territorial bodies and local authorities, including municipal administrations, research and training bodies, religious entities, those of the third sector and environmental protection as well as the local administrations contained in the list of public administrations disclosed by the National Institute of Statistics [...]».

⁴⁵ In this sense, see T. FAVARO, *Transizione energetica e amministrazione decentrata*, in *GiustAmm.it*, n. 6/2020, which highlights how energy communities constitute a shared administration tool.

collaboration to take place, primarily between private subjects and then between private and public subjects, the Administrations must act to bridge the information asymmetries between the public and private sectors. Citizens must have knowledge of the economic, environmental and social benefits obtainable by participating in the CERs and be aware of how to become part of them, increasing their usefulness. The fundamental role of information is also expressed in the RED II directive which, in the preamble, point 26, underlines that «Member States should ensure that renewable energy communities can participate in available support schemes on an equal footing with large participants. To that end, Member States should be allowed to take measures, such as providing information, providing technical and financial support, reducing administrative requirements, including community-focused bidding criteria, creating tailored bidding windows for renewable energy communities, or allowing renewable energy communities to be remunerated through direct support where they comply with requirements of small installations».

But not only that: the same directive returns to the awareness and information of citizens in art. 18, para. 6, which provides for an active role on the part of the Member States which must prepare adequate information, awareness, guidance or training programs «in order to inform citizens of how to exercise their rights as active customers, and of the benefits and practicalities, including technical and financial aspects, of developing and using energy from renewable sources, including by renewables self-consumption or in the framework of renewable energy communities».

Local administrations must therefore take care of the publication of the projects for the creation of the ERCs on their institutions to give notice also to non-participating citizens, in application of the principle of transparency provided by Legislative Decree 14 March 2013, n. 33. This form of advertising makes information on energy communities available to citizens, allowing them to monitor the development of the related projects, without burdening them with the burden of submitting an access request pursuant to Legislative Decree 19 August 2005, n. 195 which regulates the right of access in environmental matters.

With a view to a more widespread and engaging stakeholder engagement, an important role can be played by the profiles of local administrations on social media,

pervasive and agile tools, perfect for allowing an audience of non-experts to quickly find out about the projects launched⁴⁶.

6. LEGAL MODEL AND IMPLEMENTATION OF THE ERC

The RED II directive and Legislative Decree 199/2021 do not prescribe a specific legal form for ERCs, but set a series of characteristics and objectives that circumscribe the field of legal-organizational models that can be adopted. Particularly:

- the ERC must be an autonomous legal entity⁴⁷ separate from its members, with its own organization and bodies;
- the ERC must not have profit-making as its main purpose. This automatically excludes from the panorama of legal forms that can be used all entities that are necessarily mainly profit-making (partnerships, joint-stock companies), limiting the choice to legal forms that have – or may have – a main purpose other than profit. This does not mean that ERC cannot carry out commercial activities, linked, for example, to the sale of products or services. However, these activities must always have an accessory or instrumental or functional character to achieve the primary purpose that the legislation sets for the Renewable Energy Communities - that is, to provide environmental, economic or social benefits to their members or to the local areas in which they operate;
- participation in the ERC must be open and voluntary for all subjects admitted by law to be part of this configuration. Naturally, limits may be set on the maximum

⁴⁶ On the use of technology for the involvement of data subjects, see R. CAVALLO PERIN, D.-U. GALETTA (eds.), *Il diritto dell'amministrazione digitale*, Torino, 2020.

⁴⁷ According to E. CUSA, *Il diritto dell'Unione Europea*, cit., p. 303, «The requirement of autonomy is here to be understood as the necessary democratic structure of the ERC, as Recital no. 71 of the same directive makes clear: “Renewable Energy Communities should be able to maintain their autonomy from individual members and other traditional market actors that participate in the community as members or shareholders, or cooperate by other means, such as investment”. From the aforementioned Recital 71, I draw the conclusion that the ERC should not only remain democratic internally, but also independent externally. This means, for example, that an ERC may not submit itself, even contractually, to management and coordination activities by other entities, at least when this entails joining a vertical group as a coordinated entity».

number of participants, in consideration of the overall power of the plants available to the Energy Community, their relative producibility on an hourly basis and the aggregate energy demand – again on an hourly basis – of the users who can be aggregated. In fact, the ERC must be sized in an optimal manner, adopting as a fundamental criterion the maximization of the amount of shared energy;

- the components retain their rights as final customers, including the right to choose their vendor. They must have the possibility to exit the ERC at any time; in the event of early withdrawal, however, any considerations – fair and proportionate – agreed for the sharing of the investments supported remain unchanged. Participants keep their electricity supply contract with their chosen seller or the protected regime. In fact, the ERC does not operate as a reseller, nor does it bind its participants to stipulate energy supply contracts. The only difference lies in the fact that, periodically, each participant will receive a share of the proceeds achieved by the ERC, as established by the statute. There is currently no immediate discount on the bill, because the breakdown depends on the regulation adopted by the single ERC. Every citizen participating in the ERC, therefore, contributes to the generation of income and will be able to enjoy a part of it;
- the ERC must designate a delegated subject responsible for the distribution of the shared electricity.

Legal regimes more in line⁴⁸ with the requirements set for the ERCs indicated by current legislation – both national and community – are those of the association and the cooperative⁴⁹. The association can be recognized or unrecognized. The recognition entails

⁴⁸ Recital no. 44 of Directive 2019/944/EU (when it specifies that it would be “possible for the Member States to provide that citizens’ energy communities can be established in the form of any legal entity, for example an association, a cooperative, a partnership, a non-profit organization profit-making or small or medium-sized enterprises”) must be interpreted in the sense that the Member States have the right to admit more than one organizational form to form energy communities.

⁴⁹ Again E. CUSA, *Il diritto dell’Unione Europea*, cit., p. 327: «because of the purposes imposed on the ETCs and ERCs by Dir. 2018/2001/EU and by Dir. 2019/944/EU, I have no doubt that the optimal models for pursuing them are: (i) the cooperative society (hopefully with an internal organization governed by the domestic consumer members), if one intends to pursue a mutual purpose; (ii) the cooperative society (since in this case it is necessary to provide for a cooperative of special law without mutualistic purposes, already admitted abstractly by article 2520, paragraph 2, of the civil code, but for now effectively absent in our legal system, as I have argued elsewhere) in in

the perfect patrimonial autonomy of the entity. The associative one is a legal regime particularly suitable for ERCs, as:

- institutionally non-profit;
- it allows free entry and free exit of members;
- it has low constitutive and management costs (higher if recognition is opted for);
- it allows the democratic participation of the members in the life of the institution, through the application, in the assembly, of the principle of one vote per person. If established in compliance with the requirements established by the Third Sector Code (Legislative Decree No. 117/2017), the association also enjoys the status of Third Sector Entity, which entitles you to a series of tax breaks (currently being definition).

The cooperative is a form of enterprise that is well suited to achieving the social purpose identified by the reference regulations on the subject of ERCs, as it is characterized by:

- typically mutual purpose;
- open door principle;
- principle of *per capita* voting;
- perfect patrimonial autonomy.

It is a more structured legal reality than the association and involves higher management costs, but its better structure could make it even more suited to the experience of the ERC, compared to the association.

the first place or the association or foundation in the second place, if instead the intention is to exclusively pursue an altruistic purpose. I stated that it would be preferable to establish the energy community under Italian law always in a cooperative form, even if it pursued an altruistic purpose, since the civil law of associations and foundations was conceived for organizations normally carrying out non-economic activities, while the energy community must be an entrepreneur; therefore, the energy community, if it were in an associative or foundational form, would risk being governed by rules incapable of adequately protecting the various interests involved in the exercise of its economic activities and, in particular, the interests of its creditors. The cooperative form is then ideal for the ERC, since this community must be democratic and since the cooperative corresponds to the only democratic business organization conceived by common law».

The choice between these two models is left to the negotiating autonomy of the participants in the Community. The cooperative model, in particular, seems to provide additional facets (benefit cooperative, community cooperative), all of which are equally suited to constitute an Energy Community.

To these forms can be added that of the foundation⁵⁰ and the social enterprise⁵¹: which, appropriately created in line with the reference regulations, have an open character and a purely non-profit purpose. Both of them, moreover, can receive the qualification of Third Sector Entities, so institutionally providing solidarity.

In this scenario, we may also think to a specific enterprise that can be created – Energy Community Enterprise (in Italian: Imprese di Comunità Energetiche ICE) – self-organised and self-regulated aggregations of individuals that, in addition to the more traditional fields of action of community enterprises, could deal with of energy issues⁵².

⁵⁰ According to E. CUSA, *Il diritto dell'Unione Europea*, cit., p. 320, the foundation contract – pursuant to Articles 23-26 of Legislative Decree No. 117/2017 – applied to an Energy Community requires «more significant adaptations than would be necessary to establish an Energy Community in associative form».

⁵¹ According to E. CUSA, *Il diritto dell'Unione Europea*, cit., p. 321, an Energy Community can be a social enterprise only if «the relevant entity pursues (if it is not a social cooperative) “civic, solidarity and socially useful purposes” within the meaning of Article 2(1) of Legislative Decree no. 112/2017 and, alternatively, has at least thirty per cent of its workers belonging to the categories of disadvantaged persons referred to in Article 2(4) of Legislative Decree no. 112/2017, or carries out on a permanent and main basis energy enterprises subsumed under the general interest activity referred to in Article 2(1)(e) of Legislative Decree no. 112/2017, or 112/2017, or carries out, on a stable and principal basis, energy enterprises subsumed under the activity of general interest referred to in Article 2, paragraph 1, letter e) of Legislative Decree no. 112/2017 (“interventions and services aimed at safeguarding and improving the conditions of the environment and the prudent and rational use of natural resources, excluding the activity, habitually exercised, of collecting and recycling urban, special and hazardous waste”»).

⁵² As L. TRICARICO, *Energia come community asset e orizzonte di sviluppo per le imprese di comunità*, in *Riv. Impr. Soc.*, n. 5/2015, p. 55, says: «A polycentric energy generation system of this kind can also be made more effective by smart grids and the availability of enabling technologies, i.e. new types of “interactive smart grids” to which multiple units can be connected. While traditional electricity grids distribute energy from a single producer centre to passive users, in this case we will have a multiplicity of prosumers (consumers and producers) connecting to networks capable of handling multiple flows of energy that can indifferently go in one direction rather than the other. Such a network is able to respond in a timely manner to the requests for less or more consumption of the various users, guaranteeing optimal and immediate management of the whole. As Moroni (Moroni, 2015) argues “it is not necessary for the smart grid to be public (Lowi, Crews, 2003); nor is it necessary for it to be unique and universal.

7. THE BENEFITS: ENVIRONMENTAL, ECONOMIC, SOCIAL

The community in its entirety, from citizens to businesses, up to the Administrations, is outlined as the place of realization of the Renewable Energy Communities which have their own distinctive feature in the collaborative dimension. Participants contribute to the benefit of the community with distinct but connected roles. The private citizen can already promote the establishment of a ERC and companies can be part of it or deal with management only as “external” subjects; on the public side, the public administration can become directly part of the Community or limit itself to promoting its creation.

The collaborative relationship between Administrations and companies allows to identify the ERCs as a form of a new public-private partnership orbiting around the principle of horizontal subsidiarity⁵³ pursuant to art. 118, paragraph 4, of the Constitution, which establishes the importance of the role played by local authorities, which have an obligation to encourage the autonomous initiative of citizens for activities of general interest⁵⁴.

In order to have a concrete realization of the ERCs, horizontal cooperation must necessarily be sought between citizens, businesses and especially municipal administrations, the closest to citizenship⁵⁵. Public subjects in this scheme carry out an essential activity of

In this scenario, not only are there no intrinsic reasons to speak of a 'natural monopoly' in energy generation; there are none in distribution either”».

⁵³ There is now a large literature on public-private partnerships. See, for references, E. CAMPAGNANO, *Le nuove forme del partenariato pubblico-privato*, Padova, 2020.

⁵⁴ As C. MARI, *Le comunità energetiche*, cit., p. 124, says, public authorities «have a facilitating role vis-à-vis citizens' initiatives by being able to provide information, make buildings available or provide financial support, as well as becoming components of ERCs. The specific ways in which local governments intervene can be found in regional laws that deal with identifying instruments to promote RECs aimed at horizontal cooperation. One regulated modality consists of protocols of understanding to identify the roles of individual actors in agreement between administration and private parties».

⁵⁵ The phenomenon constitutes «an effective horizontal collaboration between citizens and municipal administrations in the pursuit of the goals underlying environmental sustainability and the development of the territories. In this sense, it must be specified that the principle of horizontal subsidiarity does not entail a mere

direct intervention or promotion of initiatives by citizens and businesses, especially if for the pursuit of economic, social and environmental purposes⁵⁶.

Now, in this line of analysis of the ERCs, one cannot fail to focus on the benefits that these communities create.

First of all, the environmental ones.

The Renewable Energy Communities are created to contribute to the achievement of the decarbonisation objectives at European level⁵⁷, especially to promote the greater use of renewable sources. The main environmental benefit of the production of energy from renewable sources consists in not using fossil fuels imported in large part from abroad, thus avoiding the production of greenhouse gases. The greater participation of end users in the decarbonisation process, as a tool for the decentralization of energy production, leads to a more efficient use of the resource, reducing losses due to the transport of electricity. Furthermore, local and distributed production in the area leads to a reduction in the power peaks absorbed both by the transformation substations and by the national transmission grid, helping to improve network reliability and reduce component failures due to overload. Finally, it should not be overlooked that the ERCs significantly promote energy efficiency: for individual participants, in fact, having evidence of their consumption and the benefits obtainable through membership of the Energy Community tends to favor the adoption of virtuous behaviors useful for reducing consumption. Participation in these realities also leads to an increase in awareness and skills in the energy and environmental fields, which, in turn,

withdrawal of public powers, but a strengthening of the participation of individuals and energy communities in the administration of the energy service»: thus, R. MICCÙ, M. BERNARDI, *Premesse*, cit., p. 641.

⁵⁶ The art. 31, paragraph 1, law a) of Legislative Decree no. 199/2021 states: «the main objective of the community is to provide environmental, economic or social benefits at the community level to its partners or members or to the local areas in which the community operates and not to make financial profits». See also ARERA, Guidelines on configurations for self-consumption provided for by legislative decree 199/2021 and by legislative decree 210/2021, consultation document, n. 390/2022/R/EEL, p. 30.

⁵⁷ S. LAZZARI, *La transizione verde nel Piano Nazionale di Ripresa e Resilienza "Italia domani"*, in *RQDA*, n. 1/2021.

can be transferred to other areas related to sustainability: think, for example, of the food supply chain, or the issue of waste disposal.

As for the economic benefits.

By participating in a ERC it is possible to reduce the costs of one's energy consumption, thanks above all to the incentive that the Community obtains on shared energy and which, generally, it distributes – at least in part – among the participants.

Speaking of the issue of incentives⁵⁸, the legislator has recognized for each plant a unitary incentive on shared energy, i.e. that produced by the plants available to the ERC and simultaneously consumed by its members, within each hour, even with accumulation systems, equal to 7.78 €/MWh for low voltage users until 31 December 2022. The forecast remains that, also in subsequent years, an incentive will be recognized for a higher value of the variable distribution component for users low voltage equal to 0.59 €/MWh for the following 20 years. A nice advantage if we consider the energy sales prices recorded by ARERA, which for the fourth quarter of 2022 amount to 6.8 €/kWh. Lastly, the GSE recognizes from a premium rate on the energy used of 110 €/MWh.

The incentive, therefore, does not reward the maximum production of the plant itself, but the maximum production that is consumed at the same time – more precisely: over the hour – by the members of the ERC. In other words, the measure aims to reward the ability of ERC participants to consume energy in the hourly period in which it is generated, thus maximizing the amount of shared energy.

The incentive provided for shared energy in favor of ERCs, in particular, will replace the on-the-spot trading mechanism, which will be definitively abolished at the end of 2024⁵⁹.

⁵⁸ See G. LA ROSA, *Le comunità energetiche rinnovabili: riflessioni sull'“affidabilità” del sistema di incentivazione di cui al decreto RED II*, in *Ambientediritto.it*, n. 1/2022, pp. 1-17.

⁵⁹ Metering on the spot is a mechanism that allows the energy produced by your photovoltaic system not consumed at the time of production to be fed into the electricity grid, withdrawing it when needed. To this end, the electricity grid is used as a “virtual storage” tool for the surplus energy produced by the plant; the mechanism is virtual because the energy is not stored in special accumulation systems, but is released to the electricity system and exchanged on site at a later time, as compensation. The energy balance between the energy fed into the grid and that withdrawn is,

The ERC produces revenues linked to the energy fed into the grid. The energy produced by the plants available to the ERC and fed into the grid can be sold on the free market; alternatively, you can opt for a dedicated retreat⁶⁰ by the GSE.

Finally, the social benefits.

By becoming producers of energy from renewable sources and sharing it with the members of the ERC, the participating subjects assume the role of protagonists of the energy transition and, thanks to the incentives on shared energy, have the possibility of promoting new sustainable projects, thus fueling a virtuous circle. Furthermore, ERCs constitute a tool for mitigating energy poverty⁶¹ situation also widespread in Italy⁶². Especially compared to small municipalities, the establishment of ERCs is also able to revitalize and contribute to the growth of the local community economy, especially inland and mountain areas.

in this case, carried out on an annual basis, with obvious advantages in terms of management simplification of the measurements and the calculation of the fees.

⁶⁰ With Dedicated Withdrawal (RID) we mean a simplified method available to producers for the valorization of the electricity fed into the grid, which provides for: application of the hourly market zonal price; standardized contractual conditions established by the Authority (ARERA); fixed management administrative fee; activation of the agreement and withdrawal from it via the GSE portal.

⁶¹ The art. 31, paragraph 1, law d) of Legislative Decree no. 199/2021 provides that the community «is open to all consumers, including those belonging to low-income or vulnerable families, it being understood that the exercise of control powers is held by subjects with the characteristics referred to in letter b)». We can distinguish energy poor from energy vulnerable: the first are those who find it difficult to purchase a minimum basket of energy services or are constrained by an excessive diversion of household resources, affecting the maintenance of a decent standard of living, people's health and well-being; the latter, on the other hand, are those households that, in addition to potential economic hardship, are also exposed to a situation of fragility due to an inefficient dwelling, different from the purely economic vulnerable, i.e. with an energy-efficient dwelling.

⁶² According to a survey conducted by Spi CGIL and the Fondazione Di Vittorio, energy poverty does not only belong to the weaker economies, but is a current phenomenon in Italy as well, not necessarily linked to specific geographical areas. The energy poor are also found in the richest regions of northern Italy. The survey shows that the energy poor in Italy amount to 8.5 per cent of the population, are mostly single people, not living together, with low schooling, living in detached houses built before 1970 and of low socio-economic background. See <https://www.collettiva.it/copertine/welfare/2023/01/02/news/poverta-energetica-ricerca-aree-periferiche-poveri-vulnerabili-2588330/>.

Furthermore, by actively involving citizens in the energy transition, the Energy Communities also translate into a model for promoting inclusion and social collaboration⁶³.

8. FINAL REFLECTIONS

Renewable energy communities represent a great opportunity, not only in the short term (reducing the disbursements due for expensive energy), but also in the long term, since small companies or public bodies that own a plant could reduce electricity costs, thus allocating other resources to make its activities more efficient. Precisely the Administrations could make use of their vast real estate availability, the immense quantity of unused flat roofs, which can represent an opportunity for development, also with a view to urban regeneration and could turn into a much more interesting earning opportunity.

The damage to households and businesses caused by the exorbitant costs of energy commodities in the past year calls for caution, especially because if it is true that the price of gas has been declining recently, it is also true that once the race for storage has resumed, it will strong upward price volatility. It is necessary to reflect on the concept of creating value necessary for the well-being of the community but which hardly takes into account environmental costs, but above all which has not adequately considered the scarcity of commodities. For years we have deluded ourselves, especially in Europe, that energy from fossil fuels would have been accessible forever at very low cost. Today the creation of value passes through other paths, such as access to technological tools that minimize consumption and keep final costs low. For this reason, the implementation of self-consumption groups and energy communities throughout the national territory could significantly contribute to the valorisation of buildings, which would thus evolve their function, no longer fulfilling only the housing or investment function (the preferred Italians), but becoming a source of wealth, autonomy and energy efficiency.

⁶³ On the various forms of cooperation between territorial administrations and citizens in the field of energy, especially on cooperation pacts, see A. PERSICO, *Le comunità energetiche*, cit.

The impact of the ERCs on the Italian territory is still quite mild, numbering around thirty⁶⁴, but the trend is growing strongly, thanks to the financial incentive systems. Conversely, Europe lists other contexts in which energy communities are now a consolidated reality: for example France, where there are about 280 energy projects of the citizens⁶⁵ and thousands of people and small municipalities are now in complete energy autonomy from renewable sources.

Undoubtedly, setting up a Renewable Energy Community today implies the awareness that energy production has become a sharing factor: it is the reading of the bottom-up market, which conceives energy from a rival and exclusive good (a commodity) to a good capable of being produced and shared through intrinsically democratic and autonomous organizations with shared rules (a common)⁶⁶.

The same regulations – when designing the ERCs – ratify the indifference of the statutes that own the production plants and the land on which these plants will be located:

⁶⁴ We refer only to the ERCs. To these are added another thirty between self-consumption communities and energy communities on the move. See the 2021 Renewable Community Report by Legambiente, in <https://www.legambiente.it/wp-content/uploads/2021/07/Comunita-Rinnovabili-2021.pdf>.

More broadly, see C. MICCICHÉ, R. DE LOTTO, E.M. VENCO, A. BONAITI, R. DI NAPOLI, *Energy Communities: Technical, Legislative, Organizational, and Planning Features*, in *Energies*, 2022, 15, 1731, <https://doi.org/10.3390/en15051731>: «In all of Europe, there are about 3500 renewable energy cooperatives, considered as a type of Energy Community. The total amount increases when including cooperatives, eco-villages, small-scale heating organizations, and other projects led by citizen groups. Moreover, the geographical spread, the size from the local to regional to nation-wide levels, and the number of members (from a few to thousands) are quite heterogeneous. Energy projects exist in diverse forms across Europe, providing different services and activities (generation, supply, consumption and energy sharing, distribution and networks, electro-mobility, financial services) and using different Energy technologies (wind, solar, hydro, bioenergy, geothermal)» (p. 7). About that, see C. MICCICHÉ, *Il PNRR, le politiche per l'energia e l'apertura alle Comunità Energetiche*, in *Munera*, 2022; (1): 43-51 [<http://hdl.handle.net/10807/203974>].

⁶⁵ See the data from the site <https://energie-partagee.org>.

⁶⁶ See the interesting reflections reported in D. BOURCIER, J. CHEVALLIER, G. HÉRIARD DUBREUIL, S. LAVELLE ET E. PICAVET (dir.), *Dynamiques du commun Entre État, Marché et Société*, Paris, 2021, especially by M. TSUCHIYA, *La dynamique des communs dans le secteur énergétique. Une mise en œuvre de la transition énergétique facilitée par les gestionnaires de réseaux?*, p. 187, and by Y. MARIGNAC, *La transition énergétique, une transformation pour et par les communs*, p. 201.

however, the territorial factor of the Community's proximity to its plant becomes crucial, because bringing the production at a low level implies decentralizing it and making it – precisely – close to both the producer and the consumer (not surprisingly, merged into the same subject, the prosumer).

Far from affirming slogans, there is no doubt that the ERCs therefore have strong potential in sustainable energy development: they are able to make up for energy poverty and to act as a shock absorber for the social gap; the incentives – especially in Northern Italy – are substantial and are able to cover up to 5GW; these, moreover, are financed by the bills of households and businesses, not burdening the state budget.

Still, however, the shadows are not lacking.

First of all because these communities currently concern only electricity, while the production of thermal energy, which is widely used, is excluded. Furthermore, the RES source used is generally photovoltaic: which will lead to a surge in the market for the sale of panels, while the other sources - although covered by the regulations - are of little use. This leads to another problem: the location of the plants, which in a territory like the Italian one, burdened by landscape constraints, may not be easy, encountering the protection of sensitive interests that are not necessarily recessive with respect to energy ones.

It is not excluded that the legislator can then provide more stringent indications with respect to the legal model that the Community must assume – especially the ERC – to make it more stable over time, including demanding actions and costs, which perhaps with a purely associative form could not ensure durability over the years.

Finally, the reduction of the incentive in central and southern Italy is encountering some difficulties. The reasoning would also be legitimate – in the south with the same plants you earn more than in the north because there are more hours of sunshine during the year – but, for once that it is more convenient to invest in the south, it is unclear why incentives are chosen to be spread out, when the south could drag the rest of the country along thanks to its natural resources. Equalizing incentives throughout the boot could help improve the social and economic status of the South, increasingly distant from Rome and the more prosperous regions of the Country.

We'll wait for the implementing decrees, which are currently being drafted: new dawns and new suns are expected.

***Abstract.** The paper analyses the role of energy communities in the production of energy in the Italian context: indeed, they constitute a tool of unquestionable relevance in order to obviate the danger of fuel shortages due to international conflicts with producer countries, but also in order to implement clean and renewable energy production.*

Energy communities thus succeed, on the one hand, in autonomising the country from dependence on other producer countries and, on the other hand, in realising forms of shared production of clean and renewable energy, involving even the most fragile citizens in the process, so to reach also goals of social cohesion.

Nevertheless, despite the legislator's efforts to regulate them, communities are still a relatively uncommon phenomenon, encountering technical difficulties in implementation and an economic incentive system that is not fully attractive.