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Renewable Energy Communities (RECs) in the path of energy transition: the Italian experience

Comunidades de Energia Renovável no caminho da transição energética: a experiência italiana

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Abstract: The objective of the contribution is the examination of the European and Italian regulation in the field of Renewable Energy Communities (RECs), communities that play an important role in the path of the energy transition, involving multiple actors and achieving economic, environmental or social purposes. The various activities that RECs can carry out and the legal form that they can assume will be taken into account. Finally, attention will be focused on the first REC in Italy and on some positive and negative aspects of the most recent regulatory reforms.

Keywords: Renewable energy communities. Energy transition. Feed-in tariffs. Legal form of RECs. Climate change.

Resumo: O objetivo da contribuição é o exame da regulamentação europeia e italiana no campo das Comunidades de Energia Renovável, comunidades que desempenham um papel importante no caminho da transição energética, envolvendo múltiplos atores e alcançando propósitos econômicos, ambientais ou sociais. Serão tidas em conta as diversas atividades que as CERs podem realizar e a forma jurídica que podem assumir. Finalmente, a atenção será focada na primeiro CER na Itália e em alguns aspectos positivos e negativos das mais recentes reformas regulatórias.

Palavras-chave: Comunidades de energia renovável. Transição energética. Tarifas feed-in. Forma jurídica das CERs. Mudanças climáticas.

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1 Introduction

Renewable Energy Communities (RECs) play an increasingly important role in the path of the ecological transition and, specifically, the energy transition, due both to the involvement of multiple actors and to the purposes they intend to achieve. The strategic importance of RECs is based both on the involvement of citizens, businesses and local administrations for the production and sharing of renewable energy and on the economic, social and environmental purposes that they pursue.

Within RECs, private and public parties can become *prosumers*,¹ that is, at the same time producers and consumers of energy from renewable sources with benefits in terms of reducing costs, also because of lower network losses thanks to the reduced transit of energy on public networks.² Another benefit is the reduction of pollution by shifting away from fossil sources. Specifically, the members of a REC can carry out different activities: produce, consume, distribute, sell, accumulate, purchase energy, while pursuing environmental, economic or social purposes. This paper will refer to the European and Italian regulations on RECs, highlighting both the activities carried out by RECs and the purposes pursued by them. Attention will be paid both to the role that citizens, local authorities and businesses can play in RECs and to the legal form that RECs can assume. In conclusion, the first REC established in Italy will be taken into account, highlighting the most positive aspects. Finally, positive aspects and critical issues that emerge from the latest regulatory developments in the field of RECs will be highlighted.

2 European and Italian regulation on RECs

For a correct framing of the RECs study,³ it is necessary to recall the "Clean Energy for all Europeans" package, or CEP – Clean Energy Package, approved in

¹ The term *prosumer* was coined by TOFFLER, Alvin. *The Third Wave*. New York: Bantam Books, 1980.

See RUGGERI, Lucia. Needs and Barriers of Prosumerism in the Energy Transition Era, Madrid: Dikinson, 2021 and PERSICO, Antonio. "Le comunità energetiche e il ruolo sussidiario delle pubbliche amministrazioni territoriali". Rivista Giuridica AmbienteDiritto, 2021, n. 2, p. 1-18, p. 2.

About RECs in Europe see FERNANDEZ, Rosa. "Community renewable energy projects: the future of the sustainable energy transition?", *The international spectator*, 2021, vol. 56, n. 3, p. 87-104; LOWITZSCH, Jens; HOICKA, Christina E.; VAN TULDER, Felicia J. "Renewable energy communities under the 2019 European Clean Energy Package – Governance model for the energy clusters of the future?". *Renewable and Sustainable Energy Reviews*, 2020, vol. 122, p. 1-13; BIRESSELIOGLU, Mehmet Efe; LIMONCUOGLU, Siyami Alp; HAKAN DEMIR, Muhittin; REICHL, Johannes; BURGSTALLER, Katrin; SCIULLO, Alessandro;

2016 and consisting of 8 Directives that regulate some strategic sectors in the energy field, including renewable energy, RECs, energy performance in buildings, energy efficiency and the electricity market.

With regard to RECs, it is also necessary to recall Directive 2018/2021/EU of the European Parliament and of the Council, adopted on 11 December 2018, so-called RED II, on the promotion of the use of energy from renewable sources, which contains the definitions of collective self-consumption and RECs, and whose transposition by Italy should have taken place by 20 June 2021.⁴

Article 22 of this Directive highlights the fundamental role of the Member States which are required to guarantee final customers, in particular household customers, the right to participate in RECs, while maintaining their rights and obligations as final customers, and without being subject to unjustified or discriminatory conditions or procedures that would prevent their participation.

Private undertakings are also required to fulfil the condition that their participation in a REC should not constitute their primary commercial or professional activity.⁵ RECs should be granted certain rights by Member States, such as: (a) produce, consume, store and sell renewable energy, including through renewable power purchase agreements; (b) share, within the renewable energy community, renewable energy that is produced by the production units owned by that renewable energy community, while maintaining the rights and obligations of the renewable energy community members as customers; (c) access all suitable energy markets both directly or through aggregation in a non-discriminatory manner.⁶

In order to implement Articles 21 and 22 of Directive 2018/2001/EU, relating to the renewables self-consumption and RECs,⁷ a transitional regulation

FERRERO, Edoardo. "Legal provisions and market conditions for energy communities in Austria, Germany, Greece, Italy, Spain and Turkey: A comparative assessment". Sustainability, 2021, n. 13, 11212, p. 1-25.

See also the Parliament and Council Directive 2019/944/EU, adopted on 5 June 2019, the so-called IEM Directive, which established the Citizen Energy Communities (CEC). The IEM Directive was transposed by Legislative Decree no. 210 of 8 November 2021, which in Article 14 contains the definition of CECs. The substantial difference between CECs and RECs lies in the fact that the electricity that CECs manage can come from both renewable and non-renewable sources. On the other hand, the energy produced and managed by RECs must necessarily come from renewable sources. From the regulation contained in the RED II Directive and in the IEM Directive it emerges how the European Union favours RECs, through the provision of the obligation to promote communities exclusively with regard to RECs. In addition, in line with the approach of the European Union, the Italian Integrated National Energy and Climate Plan (PNIEC) provides for the promotion and support, including economic, of RECs only. See, in this regard, CUSA, Emanuele. "Sviluppo sostenibile, cittadinanza attiva e comunità energetiche". Orizzonti del Diritto Commerciale, 2020, n. 1, p. 71-126, p. 123; PERSICO, Antonio. "Le comunità energetiche e il ruolo sussidiario delle pubbliche amministrazioni territoriali". Rivista Giuridica Ambiente Diritto, 2021, n. 2, p. 1-18, p. 3. Also the Italian Recovery and Resilience Plan (PNRR) provides under measure 2, component 2, the investment 1.2 for the promotion of CERs, pp. 129, 130 et seq. See: https://www.mise.gov.it/images/stories/documenti/ PNRR_Aggiornato.pdf.

⁵ Article 22, par. 1, Directive 2018/2021/EU.

⁶ Article 22, par. 2, Directive 2018/2021/EU.

About RECs in Italy see BOLOGNESI, Monica; MAGNAGHI, Alberto. «Verso le comunità energetiche in Scienze del territorio", special issue Abitare il territorio al tempo del Covid, 2020, p. 142-150; CANDELISE, Chiara;

was introduced, contained in Article 42 *bis* of Legislative Decree no. 162 of 30 December 2019, an article converted by Law no. 8 of 28 February 2020. In order to implement Article 42 *bis*, the Italian Regulatory Authority for Energy, Networks and Environment (ARERA) adopted Resolution 318/2020/R/EEL,⁸ which defined the economic incentives relating to electricity from renewable sources shared by a group of self-consumers who act collectively in buildings and multi-apartment buildings or shared within a REC.⁹

With the approval of Legislative Decree no. 199 of 8 November 2021, Directive 2018/2001/EU was definitively transposed with the aim of accelerating Italy's energy transition towards the achievement of the EU decarbonisation objectives, such as the 55% reduction in emissions by 2030 compared to 1990 and the achievement of net-zero emissions by 2050.

Legislative Decree no. 199/2021 has extended the scope of application of RECs with respect to the previous regulation, overcoming some critical issues that arose under the transitional regulation. In the first place, the geographical area within which RECs can be constituted has been expanded, accepting, for the purposes of participation, the connection of consumer units and facilities to the same primary substation, ¹⁰ while the experimental legislation limited participation

RUGGIERI, Gianluca. "Status and Evolution of the Community Energy Sector in Italy". *Energies*, 2020, n. 13, 1888, p. 1-22; FERRERO, Edoardo. "Le comunità energetiche: ritorno ad un futuro sostenibile". *Ambiente & Sviluppo*, 2020, VIII-IX, pp. 677-681; PEPE, Vincenzo. "Le 'comunità energetiche' come nuovi modelli giuridici di sviluppo sostenibile". *Rivista Giuridica AmbienteDiritto.it*, 2022, n. 3, p. 1-22; GRIGNANI, Anna; GOZZELINO, Michela; SCIULLO, Alessandro; PADOVAN, Dario. "Community Cooperative: A New Legal Form for Enhancing Social Capital for the Development of Renewable Energy Communities in Italy", *Energies*, 2021, n. 14, 7029 *et seq*. https://doi.org/10.3390/en14217029, p. 1-15; DE VIDOVICH, Lorenzo; TRICARICO, Luca; ZULIANELLO, Matteo. *Community Energy Map, Una ricognizione delle prime esperienze di comunità energetiche rinnovabili*, Milano: Franco Angeli, 2021.

The Resolution of ARERA 318/2020/R/EEL of 4 August 2020 (available at https://www.arera.it/allegati/docs/20/318-20.pdf) adopted from Article 22 of Directive 2018/2001/EU the definition of REC.

In Annex A of Resolution 318/2020/R/EEL adopted by the Italian Regulatory Authority for Energy, Networks and Environment (ARERA), the requirements and procedures for access to the service of exploitation and incentivisation of shared electricity were defined for the first time. The Ministerial Decree of 16 September 2020 identified the feed-in tariff for the remuneration of renewables installations included in the experimental configurations of collective self-consumption and in RECs. The feed-in tariff is paid by Gestore dei Servizi Energetici (GSE s.p.a.), the Italian company wholly owned by the Ministry of Economy and Finance, which is responsible for promoting the development of renewable sources and energy efficiency, qualifying photovoltaic plants, providing incentives and carrying out verification and control activities. The feed-in tariff recognised by the Ministerial Decree of 16 September 2020 consists of an amount paid to the owner of the photovoltaic plant for each KWh of clean energy fed into the network by the plant. More in detail, in the case of electricity produced by renewable plants within the RECs, the owner of the plant is entitled, for 20 years, to a feed-in tariff of €100/MWh for the installation of a collective self-consumption configuration and €110/MWh for the installation of a REC. Resolution 318/2020/R/EEL will be replaced by Resolution 727/2022/R/EEL, adopted by ARERA on 27 December 2022, starting from the last date between 1 March 2023 and the date of entry into force of the decree of the Minister of the Environment and Energy Security (MASE), which must update the feed-in mechanisms and tariffs for renewable energy plants inserted in configurations of collective self-consumption or in RECs with power not exceeding 1 MW.

Article 32, par. 3, lett. a), Legislative Decree 199/2021. Both the primary substation and the secondary substation are electrical installations that have the function of transforming high-voltage input energy into medium-voltage energy.

in the community to the same secondary substation. Only a few users connected to the primary substation are also connected to the secondary substations, since they are local. Since in Italy there are about 2000 primary substations and about 430,000 secondary substations, approving, for the purposes of participation in RECs, the connection of consumer units and facilities to the same primary substation, means significantly expanding the number of users who can participate in RECs. Secondly, the power limit of the facility has been raised to 1 MW, compared to the limit of 200 kW provided for by the transitional regulation, relevant for access to the direct incentive mechanism.¹¹

Thirdly, the category of subjects that can be part of RECs has been extended to include research and training bodies, religious bodies, third-sector and environmental organisations, as well as local administrations identified in the list of public administrations published by the Italian Institute of Statistics (ISTAT).¹²

In the light of the aforementioned regulatory reform, therefore, the RECs that can have access to the mechanisms of exploitation and incentivisation of shared energy can be composed of a large number of users, thanks to the provision of the requirement of connection, no longer to the same secondary substation, but to the primary substation and without prejudice to the requirement of proximity to the facilities. This requirement is fulfilled by the presence of members in the same municipal territory, in which the energy sharing facilities are located.

The subjects who can be part of a REC are the subjects to whom Article 31, par. 2, lett. b), of Legislative Decree 199/2021 recognises the exercise of powers of control over the community, which can be natural persons, including users belonging to low-income families, small and medium-sized enterprises, with the exclusion of businesses that within the community would carry out commercial and industrial activities as a main activity, religious bodies, third-sector, environmental, research and training bodies, as well as territorial entities and local authorities. The fundamental character of RECs is the sharing of energy, energy that must necessarily be produced from renewable sources and from plants that are available and under control of the community itself.

On 27 December 2022, ARERA approved Resolution 727/2022/R/EEL which, replacing Resolution 318/2020/R/EEL, introduces procedural indications and simplifications with respect to the transitional regulation in force from 2020, introduced by Article 42 *bis* of Legislative Decree 162/2019, and implements Legislative Decrees 199/21 and 210/21. With the aforementioned Resolution, the

¹¹ Article 8, par. 1, Legislative Decree 199/2021.

Article 31, par. 1, lett. b), Legislative Decree 199/2021. In the list of public administrations published by the Italian National Institute of Statistics (ISTAT), various public entities are identified, all united by the local dimension of their activity.

TIAD (Testo Integrato Autoconsumo Diffuso) was approved, which defines all systems for widespread self-consumption: groups of self-consumers who act collectively in buildings and multi-apartment buildings, RECs and individual self-consumers on the public network.

Among the most important novelties are the unambiguous definitions for all the various configurations of widespread self-consumption and the distinction of two geographical areas: the market area, in order to identify shared electricity, and the area underlying the primary substation, in order to identify the real self-consumed electricity. Since following the approval of Legislative Decree 199/2021, as already noted above, the exploitation of widespread self-consumption refers to the area underlying the primary substation, and no longer to the secondary substation, in the TIAD the criteria are outlined on the basis of which the network operators identify, in a conventional way, the areas underlying each primary substation starting from the actual configuration of the electricity networks, with the possibility of introducing geographical corrections. In the TIAD, the first identification of the areas is expected to have a short validity of 7 months and is subject to consultation by the distributors, with the aim of allowing any corrections to be made promptly. After this first short period, the validity period of the areas, which will be detected for the new configurations, will be equal to 2 years.

The TIAD must be applied from the last date between 1 March 2023 and the date of entry into force of the decree of the Italian Minister of the Environment and Energy Security (MASE 13), which must update the feed-in tariffs and mechanisms for renewable energy plants inserted in configurations of collective self-consumption or in RECs with power not exceeding 1 MW. 14

The MASE has prepared the outline of the Ministerial Decree on feed-in tariffs for renewable energy plants inserted in configurations that provide for the use of the existing distribution network underlying the same primary substation. ¹⁵ In this outline, subject to public consultation concluded on 12 December 2022, a 110 Euros/MWh premium is envisaged for RECs, regardless of the technology used and the power size, as long as it does not exceed 1 MW. In the outline of the Ministerial Decree, it is assumed to provide for a total quota over the entire period equal to 5 GW, at the achievement of which the Ministerial Decree would no longer be applicable, without prejudice to a subsequent provision or an increase in the power quota. The premium, recognised for a period of 20 years, is equal to 100 Euros/MW for collective self-consumption systems from renewable sources and

With Legislative Decree 173/2022, converted by Law no. 204 of 16 December 2022, the Ministry of Ecological Transition (MITE), changed its name to the Ministry of the Environment and Energy Security (MASE).

¹⁴ As required by Article 8, Legislative Decree 199/2021.

¹⁵ The incentive may, therefore, concern: a) systems of individual self-consumption of renewable energy at a distance, b) systems of collective self-consumption from renewable sources and c) RECs.

for individual self-consumption systems of renewable energy that are remote and without a direct line, and is equal to 110 Euros/MWh for RECs. 16 In the outline of the Ministerial Decree, a correction of the tariff for photovoltaic plants is foreseen to take into account the different levels of sunshine that characterise the regions of Italy: for central and southern Italy the proposed correction factor is equal to ± 4 /MWh, while for the regions of northern Italy the proposed correction factor is equal to ± 10 /MWh.

On 23 February 2023, the MASE submitted to the EU Commission the Ministerial Decree outline on feed-in tariffs for renewable energy plants, enriched by the proposals made during the public consultation, in order to obtain the necessary approval for its entry into force.¹⁷

3 Activities of general interest carried out by RECs

The activities that RECs can carry out concern the production of energy from renewable energy plants that are within their availability, ¹⁸ instantaneous on-site self-consumption or the sharing of energy with members of the REC, the accumulation of excess energy and its sale. ¹⁹ In addition to these main activities, RECs can promote integrated home automation interventions, energy efficiency interventions as well as offer electric vehicle charging services to their members, take on the role of retail companies and provide ancillary and flexibility services. ²⁰ In any case, all activities of RECs must comply with the constraint constituted by the main objective that must be pursued, represented by the production of environmental, economic or social benefits in favour of its members or local reference areas. ²¹ RECs are prohibited from pursuing as their main objective the realisation of financial profits, while a lucrative purpose can be admitted if it is aimed at remunerating the investments made for the establishment of the community and for the installation of renewable

¹⁶ This is the same amount provided for by Ministerial Decree 16 September 2020.

See: https://www.mase.gov.it/comunicati/mase-avvia-iter-con-ue-su-proposta-decreto-cer. Pending the adoption of the Ministerial Decree, the Ministerial Decree of 16 September 2020, adopted in implementation of article 42 bis, par. 9, Legislative Decree 162/2019, converted by Law 8/2020.

Plants are not required to be community-owned. Resolution 318/2020/R/EEL, Annex A, article 1, lett. o), referred to the concept of "property", by virtue of which the full availability of the plant is required on the basis of a legal title that can be different from property, such as usufruct, loan for use, provided that the mere ownership or availability of the plant based on a title other than property is not an obstacle to the achievement of the objectives of the community. Article 31, par. 2, lett. a), of Legislative Decree 199/2021 also refers to property, where it specifies that each consumer who participates in a community can own renewable source plants that are built as referred to in Article 30, par. 1, lett. a), point 1, of Legislative Decree 199/2021, that is to say that they are production plants from renewable sources directly interconnected to the end customer. These plants, pursuant to Article 30, par. 1, lett. a), point 1, of Legislative Decree 199/2021, may be owned by a third party.

¹⁹ Article 31, par. 2, lett. b), Legislative Decree 199/2021.

 $^{^{\}rm 20}$ Article 31, par. 2, lett. f), Legislative Decree 199/2021.

 $^{^{\}rm 21}~$ Article 31, par. 1, lett. a), Legislative Decree 199/2021.

energy plants. Members of RECs can access the incentives provided for energy produced by renewable energy plants,²² consisting of the tariffs established and updated with Ministerial Decree of the MASE.

4 The environmental, economic or social purposes of RECs

As anticipated, the main purpose of RECs is represented by the environmental, economic or social benefits that they must achieve.²³

The economic purpose is represented by the reduction of costs that are lower, thanks to the use of own energy, than the costs related to the supply of energy from the public network, due to the exclusion of system charges. ²⁴ In addition, the establishment of RECs allows families and businesses to be less exposed to possible, and often sudden, price increases in the market, mainly due to international geopolitical events. ²⁵

The social purpose is achieved through the establishment of a community of subjects who cooperate with each other to meet collective needs in a responsible way, also for the benefit of citizens with fewer economic resources. Finally, the environmental objective is pursued through the option for the production of energy from renewable sources, with the aim of abandoning fossil sources, in pursuit of the objective of climate neutrality by 2050, thus achieving the green transition, requested by the European *Green Deal*, by European Regulation 2021/1119/EU, containing the "European Climate Law" and by European Regulation 2021/241/EU, 8 establishing the Recovery and Resilience Facility (PNRR).

This is the incentive constituted by the tariff paid by GSE on the electricity produced by the plant, or on the part of this production that is fed into the network or self-consumed. See Articles 5 and 6 of Legislative Decree 199/2021. See LA ROSA. Giuseppe. "Le comunità energetiche rinnovabili: riflessioni sull'affidabilità del sistema di incentivazione di cui al decreto Red II. *Rivista Giuridica Ambiente Diritto.it*, 2022, n. 1, p. 1-17.

²³ Article 31, par. 1, lett. a), of Legislative Decree 199/2021 states that: «the primary objective of the community is to provide environmental, economic or social benefits at the community level to its members or to the local areas in which the community operates and not to make financial profits».

MARI, Chiara. "Le comunità energetiche: un nuovo modello di collaborazione pubblico-privato per la transizione ecologica". Federalismi, 2022, n. 29, p. 111-134, p. 112.

PERSICO, Antonio. "Le comunità energetiche e il ruolo sussidiario delle pubbliche amministrazioni territoriali". Rivista Giuridica Ambiente Diritto, 2021, n. 2, p. 1-18, p. 3.

²⁶ Pursuant to Article 31, par. 1, lett. d) of Legislative Decree 199/2021, the community «is open to all consumers, including those belonging to low-income or vulnerable families».

The Parliament and Council Regulation (EU) No. 1119/2021 on the "European Climate Law", implementing the European *Green Deal*, has set out in Article 1, par. 2, the binding objective for Member States of climate neutrality in the European Union by 2050. In Article 4, on "Intermediate Union climate targets", paragraph 1 establishes, in order to reach the climate neutrality objective, the binding Union 2030 target, which consists of a domestic reduction of net greenhouse gas emissions by at least 55% compared to 1990 levels by 2030. In order to reach the intermediate binding objective, in Legislative Decree 199/2021, in article 3, relating to "National objectives on renewable sources", the minimum target of 30% was set as a total share of energy from renewable sources in gross final consumption.

The Parliament and Council Regulation (EU) No. 241/2021 provides that recovery and resilience plans of the individual Member States should use at least 37% of the total allocation to contribute to the green

The PNRR drawn up by the Italian Government,²⁹ approved on 13 July 2021 by Implementing Decision of the Council of the European Union, envisaged as the second mission, of the six total, that related to the green revolution and ecological transition. As part of the second mission, with regard to the second component relating to renewable energy, hydrogen, network and sustainable mobility, investments were allocated to ensure the necessary resources to install around 2,000 MW of new electricity generation capacity in a shared configuration, with RECs and renewable energy self-consumers acting jointly.³⁰

Open participation in RECs: the role of individuals, local authorities and businesses

Pursuant to Legislative Decree 199/2021, RECs are characterised by an open participation³¹ to all consumers and by the possibility of withdrawal by participants from the self-consumption configuration, which can be exercised at any time.³² RECs should, therefore, allow the maximum possible participation to consumers, in line with the provisions of Directive 2018/2001/EU which specifies that «participation in renewable energy projects should be open to all potential local members based on objective, transparent and non-discriminatory criteria».³³

The active role that citizens and businesses can play in the production of energy in a "widespread" and sharing system was highlighted, thus helping to fulfil both individual and collective needs.³⁴

In order to encourage the active participation of citizens in the concrete constitution of RECs, it is necessary to provide information and training plans on issues related to RECs. In this regard, Directive 2018/2001/EU in Article 18, par. 6, requires Member

transition, including biodiversity, or to address the challenges resulting therefrom, in accordance with the principle of "do not significant harm" (DNSH) to the environment.

²⁹ See: https://www.governo.it/it/approfondimento/pnrr-gli-obiettivi-e-la-struttura/16702. See LAZZARI, Silvia. "La transizione verde nel Piano Nazionale di Ripresa e Resilienza 'Italia Domani'", Rivista Quadrimestrale di Diritto dell'Ambiente, 2021, n. 1, p. 198-220.

The implementation of the interventions, assuming that they concern photovoltaic plants with an annual production of 1,250 kWh per kW, would produce about 2,500 GWh per year, being able to contribute to a reduction in greenhouse gas emissions estimated at about 1.5 million tons of CO2 per year. See https://openpnrr.it. The investment envisaged by the Italian Recovery and Resilience Plan for RECs and self-consumption amounts to €2.20 billion. See https://www.governo.it/it/approfondimento/pnrr-gli-obiettivie-la-struttura/16702, p. 130.

The Parliament Resolution (EU) of 26 May 2016, on a «new deal» for energy consumers, N. 2323/2015 (INI) stresses that «in the context of a well-functioning energy system, local authorities, communities, cooperatives, households and individuals have a key role to play, should contribute substantially to the energy transition and should be encouraged to become energy producers and suppliers, if they choose to do so:

³² Article 32, par. 1, lett. b), Legislative Decree 199/2021.

 $^{^{\}rm 33}$ Whereas no. 71 of Directive 2018/2001/EU.

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States to develop suitable information, awareness-raising, guidance or training programmes «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 renewable self-consumption or in the framework of renewable energy communities».

The necessary exchange of information can take place through information campaigns, which can start "from below" and see as main protagonists the associations and among them, in particular, the environmental associations that work for the protection of the environment. Information and training can be guaranteed by the public administration, in particular by local authorities, through the publication on their institutional sites of REC implementation projects, guidelines etc.

In particular, municipalities can perform an important role, starting precisely from the dissemination of information, the training of community members regarding energy production, the sharing of it and the multiple forms recognised and encouraged by the legislature, including in particular the constitution of RECs. Alongside citizens and public administrations, in particular local authorities, a key role can be played by businesses that can participate in communities, provided that their participation does not constitute the main commercial and industrial activity. The establishment of a REC necessarily requires technical and managerial skills and competences that a local authority may not have. The involvement of businesses could overcome this drawback: businesses can, in fact, have the technical skills that are necessary for the establishment of a REC, for the construction of energy plants from renewable sources and for their management, being able to also assume the role of private operator.

6 The legal form of RECs

A REC is defined as an «autonomous legal entity» 36 and in fact, in the case of Italy, it assumes the legal form of an unincorporated association 37 or a cooperative society. 38

The unincorporated associations are part of the third-sector bodies and are collective non-profit organisations set up for the pursuit of civic, solidaristic and social utility purposes.³⁹ Among the activities of general interest that third-sector bodies, and among these unincorporated associations, propose to carry out are

 $^{^{\}rm 35}$ Article 31, par. 1, lett. c), Legislative Decree 199/2021.

³⁶ Article 31, par. 1, lett. b), Legislative Decree 199/2021.

³⁷ The regulation of unincorporated associations is contained in Legislative Decree no. 117 of 3 July 2017 and Articles 36, 37, 38 and 42 bis of the Italian Civil Code.

³⁸ The regulation of cooperatives is contained in the Italian Civil Code in Articles 2511 et seq.

³⁹ Article 4, par. 1, Legislative Decree 117/2017. Civic, solidaristic and social utility purposes are pursued by third-sector bodies through the performance, exclusively or mainly, of one or more activities of general interest in the form of voluntary action or free provision of money, goods or services, or mutual aid or

interventions and services aimed at safeguarding and improving environmental conditions and the prudent and rational use of natural resources. ⁴⁰ There is now no doubt that RECs, through the production and sharing of energy produced from renewable sources, aim at safeguarding and improving environmental conditions and the prudent and rational use of natural resources.

The other form chosen for the constitution of RECs is represented, as anticipated, by the cooperative society. Cooperatives are companies with variable capital, engaged in the production of goods or services, with a mutual purpose, 41 which translates into the advantage that the members obtain thanks to the performance of the activity, not with third parties, but directly within the company itself. The cooperative form also responds to the characteristics provided for by the regulations concerning RECs: production and consumption among peers, independence of participants, absence of profit as main purpose of the activity.

Now it is necessary to question whether a municipality can be part of a REC, considering the main forms that are chosen for its realisation: the unincorporated association and the cooperative society. The answer to this question, in the case of a REC constituted as an unincorporated association, must be positive because, on the basis of the provisions of Legislative Decree no. 175 of 19 August 2016, 42 public bodies can participate in incorporated and unincorporated private-law associations, membership-based foundations or public bodies, even if they were to carry out business activities in one capacity or another. Consistently with the legislative provisions, the first RECs in Italy took on the legal form of unincorporated associations.

It must also be verified whether a municipality can be admitted to being part of a REC when it has been established as a cooperative. Also for this hypothesis the answer is affirmative by virtue of the combined provisions of Article 3, par. 1, and Article 4, par. 7 of Legislative Decree 175/2016, but some clarifications are necessary. Pursuant to Article 3, par. 1 of Legislative Decree 175/2016, public administrations may participate, directly or indirectly, exclusively in companies, including consortia, constituted as public limited companies or limited liability companies, also in a cooperative form.

Pursuant to Article 4, par. 7, of Legislative Decree 175/2016, the participation of public administration in companies whose main corporate purpose is the production of energy from renewable sources is admitted as well as, as a consequence, the participation in the RECs that have assumed the legal form of cooperatives.

production or exchange of goods or services. Third-sector bodies must be registered in the national third sector register.

⁴⁰ Article 5, par. 1, lett. e), Legislative Decree 117/2017.

⁴¹ Article 2511 of the Italian Civil Code defines cooperatives as companies with variable capital and a mutual purpose and establishes that they must be enrolled in the register of cooperative societies.

 $^{^{\}rm 42}$ Article 1, par. 4, lett. b) and Article 3, par. 1, Legislative Decree 175/2016.

However, it is necessary to bear in mind that pursuant to Article 4, par. 1, of Legislative Decree 175/2016, public administrations may, directly or indirectly, set up companies, or acquire or maintain shares in companies which have as their object the production of goods and services, only insofar as the activities of production of goods and services are strictly necessary for the pursuit of their institutional purposes.

In addition, compliance with this condition must result from the statement of reasons contained in the deliberative act setting up a company or purchasing shares, even indirect, by public administrations in companies already incorporated. And the reasons must demonstrate the need for participation in the company for the pursuit of the institutional purposes of the public administration.⁴³

In any case, whether the form of unincorporated association or of cooperative society is chosen for the constitution of a REC, the members are required to acquire a memorandum and articles of association. In particular, the articles of association regulate the redistribution of the incentive provided by Gestore dei Servizi Energetici (GSE), management costs, agreements for any additional services, the entry of new members into the REC etc. In addition, Legislative Decree 199/2021 provided that final customers, self-consumers of renewable energy or organised in RECs, regulate relations through a private-law contract that must uniquely identify a person responsible for the distribution of shared energy.⁴⁴

7 Conclusions

It is believed that it may be of interest to give an account of the first REC established in Italy that arose in northern Italy, in Piedmont. It is the CER Energy City Hall, ⁴⁵ constituted, in the guise of unincorporated association, in Magliano Alpi, adhering to the «Manifesto delle Comunità Energetiche per una centralità attiva del Cittadino nel nuovo mercato dell'energia», promoted by the Energy Center of the Polytechnic University of Turin. ⁴⁶ This energy community is developed around a 20-kW photovoltaic solar plant, installed on the roof of the Town Hall which, connected to the POD (point of delivery, i.e. the point where electricity is withdrawn from the national network), is aimed at guaranteeing the self-sufficiency of the building itself and of some other public buildings, as well as exchanging surplus energy

⁴³ Article 5, par. 1, Legislative Decree 175/2016. Again pursuant to Article 5, par. 1, Legislative Decree 175/2016, the statement of reasons in the deliberative act must also indicate the reasons and purposes that justify the choice of government participation in the company, also in terms of economic convenience and financial sustainability. The reasons must also take account of the compatibility of the choice with the principles of efficiency, effectiveness and cost-effectiveness of the administrative action.

⁴⁴ Article 32, par. 1, lett. c), Legislative Decree 199/2021.

⁴⁵ Cer Energy City Hall was established pursuant to Legislative Decree 162/19 (Article 42 bis) and related implementing measures, such as resolution 318/2020/R/EEL of ARERA and Ministerial Decree 16 September 2020 of MISE.

⁴⁶ The Manifesto drawn up by the Energy Center of the Polytechnic University of Turin is available at the url: http://www.energycenter.polito.it/le_comunita_energetiche.

with 5 families participating in the REC. It is evident that the experience of the first Italian REC represents a form of public-private partnership, applying the principle of horizontal subsidiarity provided for by Article 118, par. 2, of the Italian Constitution, which requires local authorities to promote the autonomous initiatives of citizens relating to activities of general interest.⁴⁷

With regard to the latest regulatory developments in the field of RECs, some critical issues can be highlighted that emerge from the examination of the Ministerial Decree outline on feed-in tariffs for renewable energy plants.

A first critical aspect concerns the determination of feed-in tariffs that are confirmed in almost equal measure for widespread self-consumption entities and for RECs, without taking into account the fact that the operations to be carried out and the costs to be incurred are higher for the establishment of a REC than for widespread self-consumption models. For this reason, it was desirable to differentiate between the incentives granted.

Again, with regard to the aforementioned outline of the Ministerial Decree, it is unclear why the correction factor is foreseen to have a more favourable feed-in tariff for northern Italy compared to the areas of central and southern Italy⁴⁸. The different rate of correction, motivated by the greater gain that, with the same plants, the centre and the south would obtain due to the greater number of hours of sunshine to which these areas are exposed, results in a lack of promotion of economic and social conditions, in particular of southern Italy, which would have been achieved precisely by exploiting the most favourable climatic conditions, in terms of greater exposure to the sun, in central and southern Italy.

Finally, some novelties deserve praise in the text of the Ministerial Decree outline on feed-in tariffs for renewable energy installations, enriched by the proposals made during the public consultation, and submitted to the European Commission for its approval. It is the provision of a grant of up to 40% of the investment, limited to communities in municipalities with fewer than five thousand inhabitants and the extension of the benefits to all renewable technologies, such as, for example, in addition to photovoltaics, wind power, hydroelectricity and biomass.

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⁴⁷ Article 118, par. 4 of the Italian Constitution provides that the State, regions, metropolitan cities, provinces and municipalities shall promote the autonomous initiatives of citizens, both as individuals and as members of associations, relating to activities of general interest, on the basis of the principle of subsidiarity.

⁴⁸ For central and southern Italy, the proposed correction factor is + €4/MWh, while for northern Italy the proposed correction factor is €10/MWh.

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