SPECIAL REPORT 10/2026 **EN**

Energy communities

Potential yet to be fulfilled

CURIA RATIONUM
EUROPEAN
COURT
OF AUDITORS

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01

Main messages

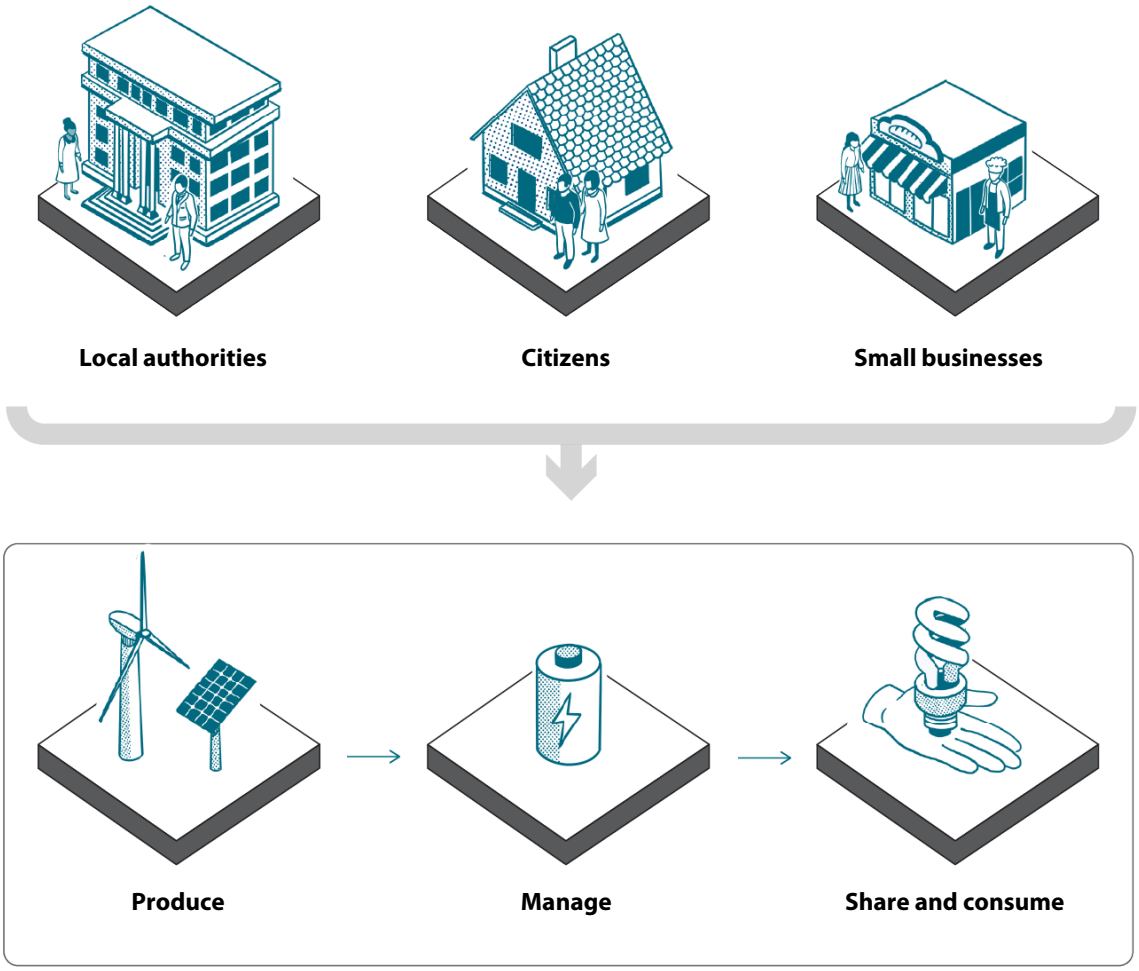
Why this area is important

01 Renewable energy plays a key role in the EU's long-term strategy to be climate-neutral by 2050, and in achieving the EU's energy transition. The EU set a target for the share of renewable energy of at least 42.5 % by 2030 (up from 25.4 % in 2024). The Commission estimated that half of the EU's citizens could produce up to 50 % of the EU's renewable energy by 2050[1].

02 Energy communities are legal entities that **empower citizens, small businesses and local authorities to produce, manage, share and consume their own energy** (see ***Figure 1***). The Commission introduced **EU legal definitions for energy communities** in Directive (EU) 2018/2001 on the use of energy from renewable sources (RED II) and Directive (EU) 2019/944 on the internal market for electricity (IMED). In the 2022 EU Solar Energy Strategy, the Commission set a political objective (referred to in this report as the 'EU objective'): The EU and member states will work together to set up **at least one renewables-based energy community in every municipality with a population over 10 000 by 2025**. In the 2016 Impact Assessment of RED II, the Commission stated that, in the EU, "*by 2030, more than 50 GW wind and more than 50 GW solar could be owned by energy communities, i.e. respectively 17 % and 21 % of installed capacity*".

[1] European Commission, *In focus: Employment in EU's renewable energy sector*, 16 May 2022, accessed 2 September 2025.

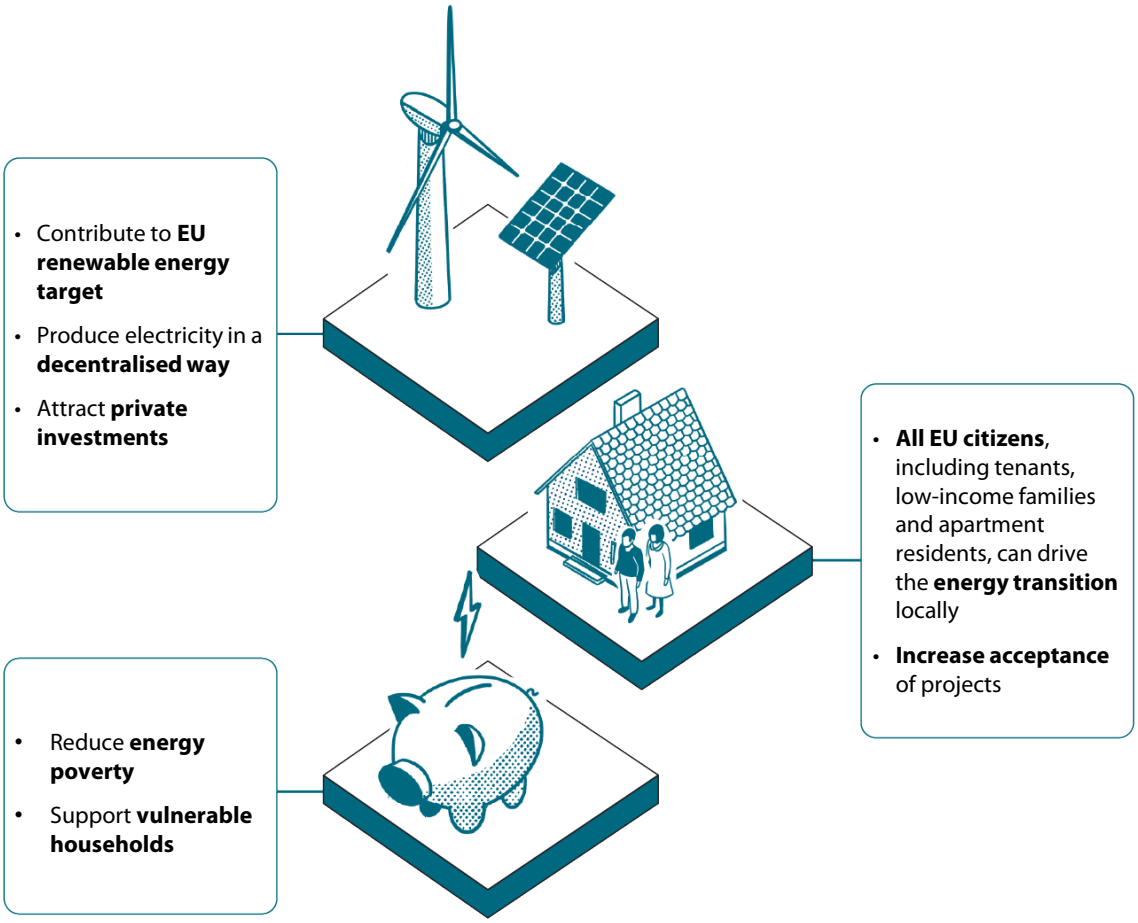
Figure 1 | What is an energy community?



Source: ECA.

03 According to the Commission, energy communities could bring several benefits (see ***Figure 2***).

Figure 2 | Expected benefits of energy communities



Source: European Court of Auditors (ECA), based on the Commission's website.

04 We carried out this audit because of the potential of community-owned renewable energy projects to **accelerate the energy transition**; **the need to involve citizens** in this transition; and to make the transition **affordable for all** in order to strengthen the social dimension of the Energy Union. We expect our work to support the development of energy communities in the EU by presenting the main challenges they face, anticipating potential remedies, and contributing to the recast of the Renewable Energy Directive and the implementation of the upcoming Citizens Energy Package.

05 We assessed whether the Commission and four member states (**the Netherlands**, **Poland**, **Italy** and **Romania**) met the EU objective and had **effectively engaged energy communities** to deliver their expected benefits. Specifically, we checked whether the Commission had set well-designed **EU objectives**, endorsed by member states, which were adequately monitored and on track to be reached. We also examined whether the Commission and member states had established the **right conditions** for communities to thrive. See ***Annex I*** for more details on our audit scope and approach, and ***Annex II*** for the communities we visited.

What we found and recommend

06 We conclude that the EU is unlikely to have at least one renewables-based energy community in every municipality with more than 10 000 inhabitants by 2025, as it had reached only 27 % of its objective by January 2025. This objective sets an ambition but does not cover the expected benefits of energy communities, lacks formal endorsement by member states, and is incompletely monitored. Even considering the good example, among our selected member states, with well-developed energy cooperatives, we also estimated that energy communities could own 4 % of solar and wind energy generation capacity by 2030, i.e. below the 21 % and 17 % stated by the Commission in the impact assessment of RED II. Moreover, governments have not created all the necessary conditions to support the development of communities, in particular by failing to address unresolved regulatory aspects and delays in grid connections, often caused by peak-time grid congestion, for which energy storage could provide solutions. The national authorities have provided us with their reactions to these recommendations (see ***Annex III***).

The EU objective sets an ambition, but is not well designed, lacks support and monitoring, and is unlikely to be reached

07 We found that EU definitions of renewable and citizen energy communities are unclear. Although the Commission has issued guidance to clarify these definitions, national authorities and stakeholders highlighted their ambiguity and the resulting confusion. Two governments out of four audited use concepts of energy communities that are not aligned with the EU definitions. Our analysis also showed that various legal options allow citizens to collectively build and operate renewable-energy installations, share the energy produced, or sell surplus electricity, but the Commission has not issued guidance clarifying these options. This lack of clarity is particularly relevant for apartment buildings, which housed 48 % of the EU population in 2023, especially if the existing owners' associations created for managing buildings cannot be used as a simple means of creating energy communities (see paragraphs ***17***-***23***).

Recommendation 1

Clarify access to the production, sharing and selling of renewable energy in apartments

The Commission should publish guidance and best practices on legal ways to involve apartment owners, directly or via owners' associations, in the production, sharing and selling of renewable energy.

Target implementation date: December 2026

08 We conclude that the expectations from Commission's 2016 Impact Assessment of RED II were overly optimistic. An updated forecast for the **Netherlands**, where energy cooperatives are already well developed, suggests that they could own around 4 % of both by 2030, compared to the expectations from 2016 that energy communities could own 21 % of solar and 17 % of wind energy generation capacity by 2030 (see paragraphs ***24***-***27***).

09 Although the Commission based the objective for energy communities on a stakeholder consultation, we found no justification of how this objective was determined. Furthermore, although the objective sets an ambition and is specific and time-bound, it is difficult to measure and lacks relevance (e.g. renewable energy generation capacity and the number of citizens involved are not covered). Moreover, the Commission did not analyse whether it was achievable. Half of the audited member states (**Italy** and **Poland**) included energy community targets in their national energy and climate plans, but these were not fully aligned with the EU's. The Commission did not recommend changes, because EU law does not make it mandatory to define national objectives. The fact that member states' plans do not reflect the EU objective indicates a low level of national ownership and contributes to the risk that the EU may miss its objective (see paragraphs ***28***-***34***).

Recommendation 2

Design SMART objectives for energy communities and reflect them in national energy and climate plans

(a) The Commission should, **based on a proper justification**, design **SMART objectives** relating to the expected benefits of energy communities, such as covering the number of citizens involved or the renewable energy generation capacity of energy communities.

(b) In the recast of the Regulation on the Governance of the Energy Union and Climate Action, the Commission should consider proposing an obligation for **national energy and climate plans to include energy communities' objectives** that are aligned with relevant EU strategies and action plans.

Target implementation date: December 2027

10 In 2024, the Commission tracked the number of energy communities using an inventory compiled on an ad hoc basis by consultants. However, these data are not sourced from reliable and consistent national registers of energy communities. The Commission provided member states with some guidance on registering communities, but this guidance was not sufficiently focused on the key elements needed for EU-level monitoring. Furthermore, neither the Commission nor the member states monitored or reported progress against the EU objective. By early 2025, we estimate that the EU had reached about 27 % of its objective, making it very unlikely to be met in 2025. However, the rapid growth of communities in **Italy** and **Poland** in January – June 2025 offers an optimistic outlook (see paragraphs *35*-*41*).

Recommendation 3

Improve the registration and monitoring of energy communities

The Commission should publish improved guidance for member states on how to register and monitor energy communities.

Target implementation date: December 2026

The audited member states did not establish all the necessary conditions for developing energy communities

11 Four years after the transposition deadlines, of the four audited member states, only **Italy** had demonstrated transposition of all energy communities' articles of both directives. The Commission performed the required transposition checks and followed up on non-transposition cases by issuing letters of formal notice and reasoned opinions. However, it had not referred the remaining cases of non-transposition to the European Court of Justice (see paragraphs *42*-*45*).

12 Only **Poland** and the **Netherlands** published the RED II-mandated national assessment of barriers to and potential for energy communities. Without such assessments, national and

EU action risks being ineffective and delaying the growth of communities (see paragraphs *46*-*49*).

Recommendation 4

Report on the assessment of barriers to and the potential for developing renewable energy communities

The Italian Ministry for Environment and Energy Security and the Romanian Ministry of Energy should **assess and report on the existing barriers to and potential for developing renewable energy communities**.

Target implementation date: July 2027

13 The Commission's guidance to member states has been effective overall. At national level, support for communities is structured, practical and easy to access in the **Netherlands**. In **Poland**, **Italy** and **Romania**, information is more fragmented or difficult to apply without expert help, thus creating barriers for communities (see paragraphs *50*-*57*).

14 None of the audited member states had adopted specific legal provisions to actively promote participation in energy communities by citizens. As for support for vulnerable households, only **Romania** established dedicated legislation. Nonetheless, the **Netherlands** developed incentives to protect the role of citizens and **Italy** did so for vulnerable households. The Commission provided specific guidance on the involvement of citizens. It also provided guidance on the involvement of vulnerable households, but this guidance has not been updated since, and was not known by the stakeholders we met (see paragraphs *58*-*66*).

Recommendation 5

Promote the role of citizens and vulnerable households

(a) The Commission should update and disseminate guidance on **involving vulnerable households** in energy communities and on **developing incentives** for energy communities to do so.

(b) The Polish Ministry of Climate and Environment, the Italian Ministry for Environment and Energy Security, and the Romanian Ministry of Energy should design provisions to **promote the role of citizens** in energy communities.

Target implementation date: December 2026

15 We found that delays and refusals of grid connections due to grid congestion slow down the development of energy communities in the **Netherlands** and **Poland**. Grid operators could speed up these connections if energy communities provided flexibility services such as energy storage, which could help to smooth out peaks in consumption or production. This would allow energy communities to consume more electricity produced locally and thus alleviate grid congestion. The Commission has taken several steps to support electricity storage, but not specifically for energy communities (see paragraphs *67*-*76*).

Recommendation 6

Support energy storage

(a) In its upcoming Citizens Energy Package, the Commission should encourage member states to incentivise energy communities to **develop energy storage solutions**.

(b) The Dutch Ministry of Climate and Green Growth and the Polish Ministry of Climate and Environment should **provide incentives for energy communities to develop energy storage** (alone or in combination with renewable energy generation) or other **flexibility services** in order to help to reduce grid congestion.

Target implementation date: (a) December 2026, and (b) July 2027

16 Public support in the **Netherlands**, **Poland** and **Italy** allows paybacks aligned with the Commission's expectations (shorter than 10 years). We found that the Dutch revolving fund to derisk projects at an early stage is an effective way of using public funds. In **Romania**, the absence of subsidies undermines the creation of energy communities. In all four audited member states, community members do not pay the corresponding network charges when they consume the electricity they produce or share, but they remain connected to the grid to cover periods when self-generation is insufficient or unavailable. However, none of the audited countries formally assessed how reduced charges, self-consumption, and energy-sharing affect other consumers – an issue that has raised concerns in the **Netherlands**, where prosumers and cooperatives are widespread (see paragraphs ***77***-***86***).

02

A closer look at our observations

The EU objective sets an ambition, but is not well designed, lacks support and monitoring, and is unlikely to be reached

EU definitions of energy communities lead to confusion and inconsistent use in half of the audited countries

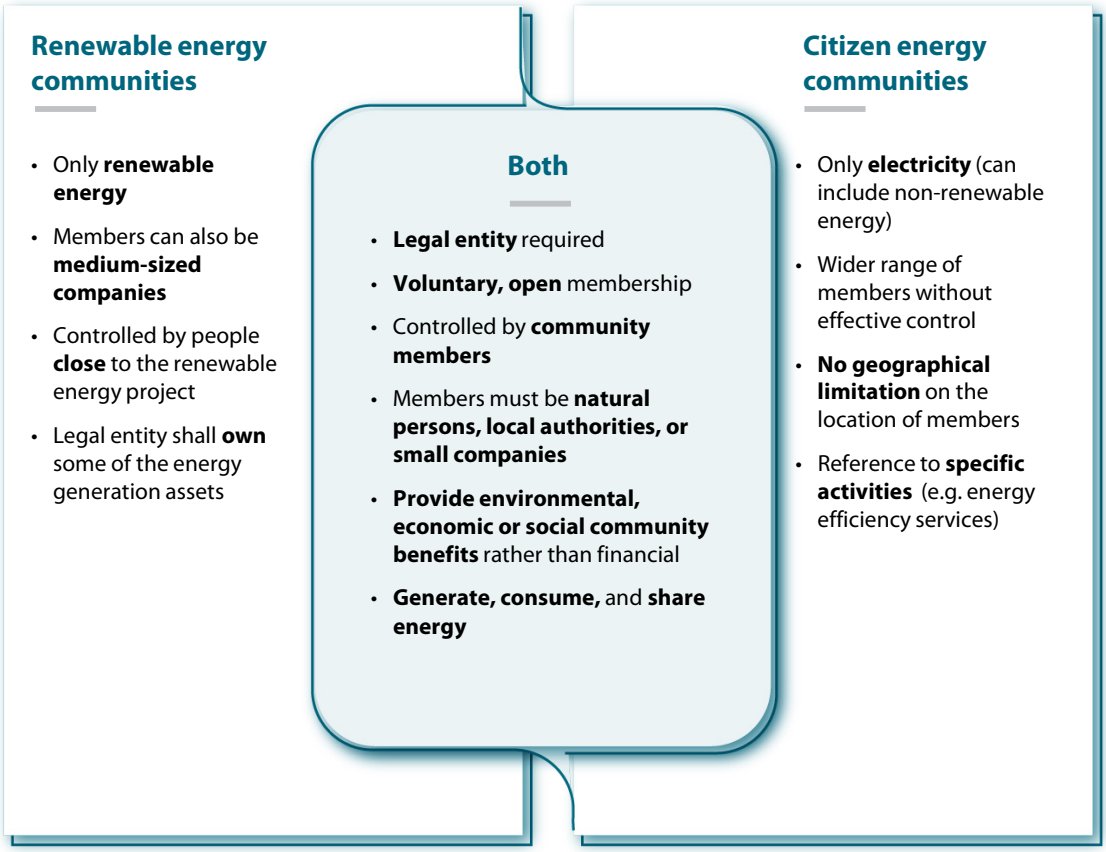
17 The EU has two legal definitions of energy communities: **renewable energy communities** under RED II and **citizen energy communities** under the IMED. These definitions outline minimum requirements to ensure that energy communities are citizen-led, inclusive, and primarily focused on environmental and social objectives rather than profit. Member states should implement concepts of energy communities that are aligned with these EU definitions. We examined whether the EU definitions of energy communities are clear and were properly used at national level.

18 We found that the legal definitions of renewable and citizen energy communities at EU level are unclear: they differ on some aspects but also overlap. For example, renewable energy communities can only generate renewable energy, whereas citizens energy communities may also produce non-renewable electricity. They overlap in terms of governance and purpose (see ***Figure 3***). Although the Commission has issued guidance to clarify the definitions of energy communities, national authorities and stakeholders[2]

[2] See, for example, Q&A: What are 'citizen' and 'renewable' energy communities?, REScoop.eu, 2019; Citizens' Energy Package: citizens' engagement, energy communities and prosumerism, European Economic and Social Committee, 2025, paragraphs 1.2 and 5.5.

highlighted their ambiguity and the resulting confusion. ***Box 1*** shows examples of energy communities.

Figure 3 | Citizen and renewable energy communities – key distinctions and common principles



Source: ECA, based on Directive (EU) 2018/2001; Directive (EU) 2019/944.

Box 1

Examples of energy communities

'La Buona Fonte' is an **Italian renewable energy community** founded in 2021. It installed a 19-kW solar plant on an abandoned school, generating 20 MWh per year, with one third shared among its 25 members. In 2024, it used its €1 500 revenue for social projects, such as urban furniture and school activities.

Founded in 2014, the **Dutch energy cooperative 'Vrijstad Energie'** has 375 members and manages solar roofs and parks (1.3 MW) and windmills (6 MW). It also informs the public about renewable energy and saving energy.

Solar carport generating renewable electricity and charging electric cars (© Amar Sjauw En Wa)

Members of the community in front of their windmills

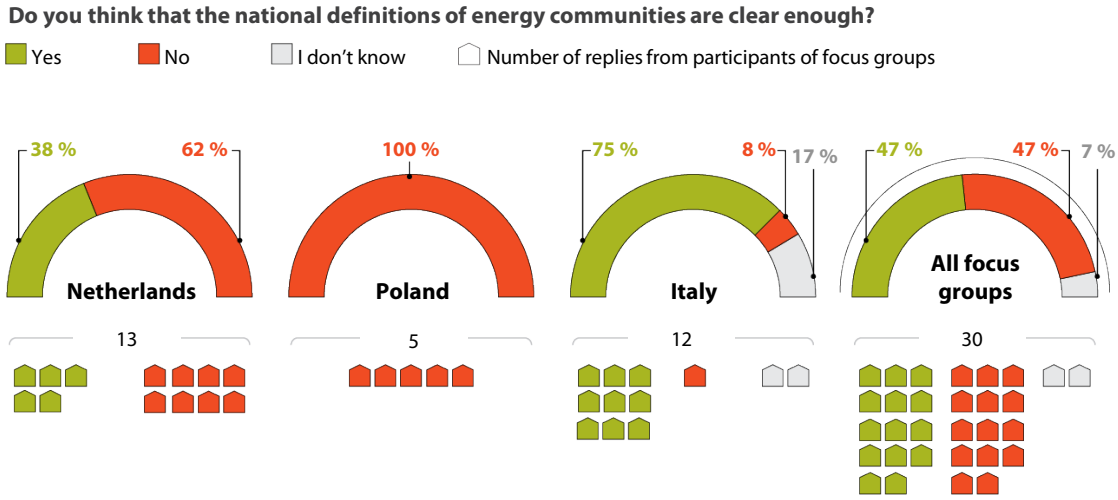
19 We found that two out of the four audited member states use concepts of energy communities that are not aligned with the EU definitions. As of July 2025, the **Netherlands** only had energy cooperatives: citizen-owned organisations where members jointly produce, use or trade renewable energy, but not based on the EU legal framework. They adopted a single definition of energy communities, covering both renewable and citizen energy communities, in new legislation in force since 2026. **Poland** transposed definitions of both renewable and citizen energy communities under a single concept – 'citizen energy communities' – so as to avoid having two definitions of energy communities with similar activities. It also uses two older national legal concepts, energy cooperatives and energy

clusters, similar to energy communities but not based on the EU legal framework, in addition to organisational structures with a specific legal status[3] ('collective prosumers', 'virtual prosumers' and 'tenant prosumers').

20 In this report, we use the word 'communities' for the sake of simplicity to refer collectively to energy communities across the four audited member states, including the Dutch cooperatives and Polish cooperatives and clusters, as they fulfil similar goals even if they do not correspond to the official EU definitions.

21 In our focus groups (see ***Annex I***), half of the participants found the national definitions of energy communities unclear (see ***Figure 4***).

Figure 4 | Half of respondents find the national definitions of energy communities unclear



Source: ECA, based on focus groups.

22 Our analysis also showed that the EU Directives allow citizens to use alternative organisational models to carry out activities similar to renewable and citizen energy communities, such as collective self-consumption, but they differ from these in their set-up requirements, governance, purpose and access to benefits. This variety offers flexibility but can also make it difficult to deploy energy communities. This is particularly relevant for apartment buildings, which housed 48 % of the EU population in 2023, where residents are already organised collectively (see ***Box 2***). The Commission has not issued guidance clarifying the different options available for apartment owners – from simple collective self-consumption to a fully established energy community – to support informed choices

[3] Life Loop, ConnectHeat, Comanage, Tandems, *Enabling frameworks for energy communities: a state of play*, Energy Cities, 2025, p. 24.

and participation in energy communities. Poland and Romania stated that such a guidance would be useful.

Box 2

Energy communities in multi-apartment buildings

Multi-apartment buildings offer large surfaces for installing solar panels. RED II allows apartment owners to act as 'jointly acting renewables self-consumers', whereby multiple consumers located in the 'same building or multi-apartment block' can organise themselves to generate, consume, store and sell self-produced renewable electricity. Member states are free to allow such arrangements without the need to create a legal entity. In the four audited member states, apartment owners can organise collectively to:

- install renewable-energy installations;
- share energy, either by using the energy generated for common areas to reduce residents' bills, or by allocating the energy generated – or the benefits generated by the sale of energy – to residents;
- sell the energy generated.

The same consumers may wish to go further and engage in other activities, or reach out to other buildings or small businesses by creating an energy community. This must be done through a legal entity. According to the Commission, they cannot use the existing owners' association – the legal structure to act collectively and manage common areas – to register as an energy community, because membership of such associations is required by law. By contrast, establishing an energy community requires voluntary and open membership. Instead – as is the case for house owners – they would have to create an entirely new separate legal entity. For apartment owners, the need to create another administrative structure adding to the existing building management may be unclear and perceived as burdensome, thus hampering the uptake of energy communities.

23 Unclear EU definitions of energy communities, inconsistent use of these concepts in two audited member states, and a lack of clarity regarding the various organisational models for citizens to collectively build renewable-energy installations, share the energy produced, or sell surplus electricity, risk deterring citizen involvement. They can also delay the creation of energy communities.

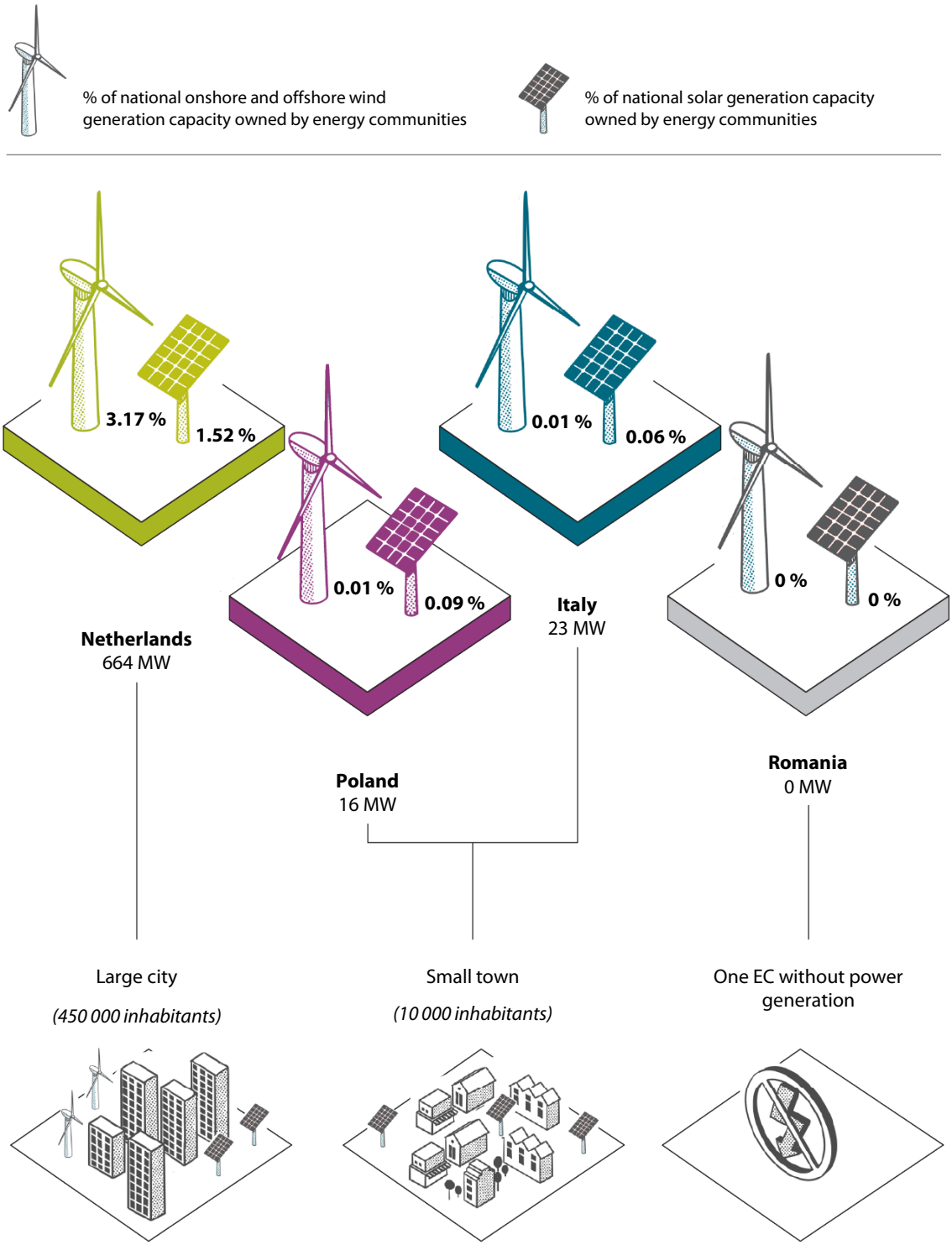
The expected contribution by energy communities to renewable energy generation was overestimated

24 In the 2016 Impact Assessment of RED II, the Commission relied on a study by a consultant, CE Delft[4], to state that, in the EU, "*by 2030, more than 50 GW wind and more than 50 GW solar could be owned by energy communities, i.e. respectively 17 % and 21 % of installed capacity*". The Commission's expectations were based on a broad concept of energy communities, as the EU definitions of the Directives had not yet been adopted. Nine years later, we checked whether this estimate was realistic.

25 ***Figure 5*** shows the 2024 solar and wind generation capacity of the energy communities in the audited member states. In **Poland** and **Italy**, they contributed to about 0,1 %. of solar generation capacity and 0.01 % of wind generation capacity in January 2025. Their contribution was higher in the **Netherlands** – 1.5 % and 3.2 %. The combined energy of these communities could power a large city in the **Netherlands** and a small town in **Poland** or **Italy**. In **Romania**, the sole energy community does not generate electricity.

[4] CE Delft, *The potential of energy citizens in the European Union*, September 2016.

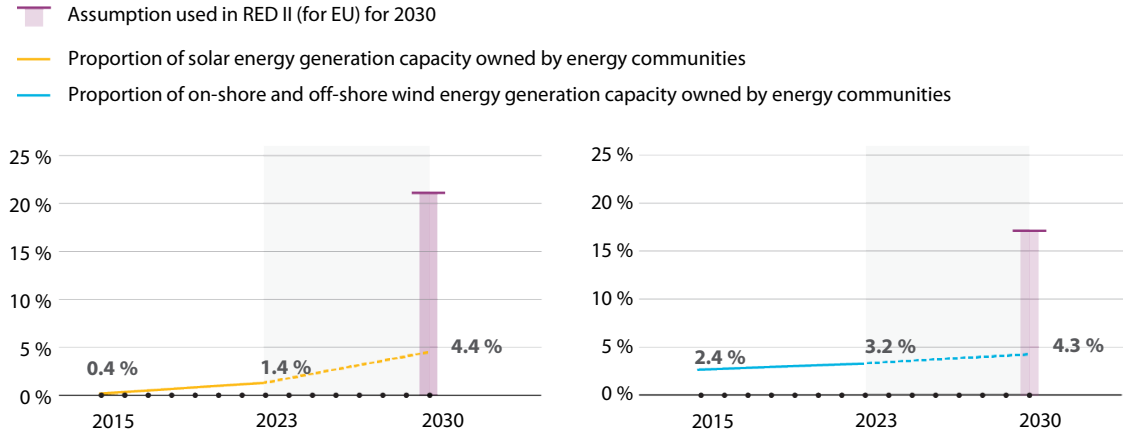
Figure 5 | Contribution of energy communities to solar and wind renewable power capacity in the audited member states (2024)



Source: ECA, based on Eurostat data, the National Regulatory Authority and the Ministry of Climate and Environment in Poland, the Hier foundation in the Netherlands, Gestore dei Servizi Energetici (GSE) in Italy, and the Ministry of Energy in Romania.

26 In 2024, CE Delft[5] issued four forecasts of the potential of energy cooperatives by 2030 in the **Netherlands**, using 2023 data. Dutch energy cooperatives are now well developed, which makes a forecast more reliable than in the Commission's impact assessment of 2016. Our analysis (see ***Figure 6***) shows that energy cooperatives, in the **Netherlands**, could contribute to about **4.4 % of solar generation capacity** and **4.3 % of wind generation capacity** in 2030 – far below the 21 % and 17 % estimated in 2016.

Figure 6 | Proportion of renewable energy generation capacity owned by energy communities in the Netherlands



Note: We adjusted the CE Delft analysis by adding national offshore wind capacity (which was not included in their original work) and assumed that energy cooperatives would not own such assets because of their costs. We also used the most realistic scenario according to CE Delft.

Source: ECA analysis, based on *The potential of energy citizens in the European Union*, CE Delft, 2016; *Potential energy communities. Study into the potential of energy communities in the Netherlands*, CE Delft, 2024; *Electricity production capacities for renewables and wastes*, Eurostat, 2025; *Development Framework for Offshore Wind Energy* commissioned by the Dutch Council of Ministers, 2022.

27 In summary, we consider that the expected contribution by energy communities to renewable energy generation capacity, as forecast in the 2016 Impact Assessment of RED II, was overly optimistic.

The EU objective sets an ambition, but lacks relevance, measurability and national endorsement

28 The Commission has included an objective for energy communities in the EU Solar Energy Strategy: "*The EU and member states will work together to set up at least one renewables-based energy community in every municipality with a population higher than 10 000*

[5] CE Delft, *Potential energy communities. Study into the potential of energy communities in the Netherlands*, October 2024.

by 2025". It explained that this objective was the outcome of a political iterative process. It took into consideration the views of the European Parliament[6] and the position paper by REScoop.eu and Energy Cities[7], both obtained when consulting stakeholders for the EU Solar Energy Strategy. We found no justification of how the EU objective as proposed by the Commission was determined, either in the EU Solar Energy strategy, the 2016 impact assessment, or in any other public or internal Commission document.

29 We assessed whether this objective is Specific, Measurable, Achievable, Relevant and Time-bound (SMART). We find that the EU objective sets an ambition, showing that the EU supports the development of energy communities. The objective is also **Specific** (number of renewables-based energy communities) and **Time-bound** (by 2025).

30 However, the objective is **difficult to measure**: the term 'renewables-based energy communities' used in the objective does not align with the official EU definitions of energy communities (see paragraph ***18***). According to the Commission, the objective encompasses renewable energy communities, but also those citizen energy communities that produce renewable electricity. Furthermore, there is no guidance specifying what the objective should include – for example, whether it covers different national definitions of energy communities, such as energy cooperatives in the **Netherlands** and **Poland** (see paragraph ***19***) or other organisational forms of collective self-consumption.

31 Furthermore, the Commission did not analyse whether this objective was **Achievable**. We also find it lacks **Relevance** as regards the expected benefits of communities (see ***Figure 2***). For example, it neither quantifies the number of participating citizens nor measures the renewable energy generation capacity. Including and monitoring both aspects would highlight citizens' contribution to the energy transition better. These aspects were already addressed in the Commission's impact assessment, and are tracked by some member states (see ***Box 3***). REScoop.eu[8] also indicated that the current monitoring system does not provide sufficient insight into the contribution of energy communities to renewable energy production or to the empowerment of citizens in the energy transition.

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[6] Greens/EFA group, *Letter to President Von der Leyen*, 2022, pp. 2-3.

[7] REScoop.EU and Energy Cities, *Position paper on Consultation on the EU solar strategy - common response*, 2022.

[8] REScoop.eu, Response to the Commission's call for evidence on the Citizens Energy Package, September 2025, p. 18.

Box 3

Examples of member states which track the number of community members and renewable energy generation capacity

In the **Netherlands**, a government-cofinanced foundation, HIER, tracks the number of community members and the renewable energy generation capacity or makes estimates (figure for the previous year, or low flat rate).

In **Italy**, the national agency for promoting renewable energy (GSE) tracks, for each community, the generation capacity and type, the members' personal data, as well as other data such as storage capacity.

In **Poland**, the National Support Centre for Agriculture tracks the number of members of each energy community and the generation capacity and type.

Source: Hier website; GSE website; National Support Centre for Agriculture website.

32 The Governance Regulation[9] requires member states to include in their national energy and climate plans (NECPs), "*where applicable, […] national trajectories and objectives, including those [for] renewable energy communities*". We checked whether governments have endorsed the EU objective by reflecting it in their NECPs.

33 We found that the Commission's guidance[10] left it optional to include objectives for energy communities in NECPs, in line with the wording of the Regulation. As a result, only **Italy** and **Poland** reflected targets for energy communities in their plans (see ***Box 4***), but these were not fully aligned with the EU objective. The Commission's recommendations on the draft NECPs did not address the absence of energy communities' objectives where these were missing or misaligned because, under the Governance Regulation, national objectives are not legally required.

[9] Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action, Annex I.

[10] European Commission, Commission Notice on the Guidance to Member States for the update of the 2021-2030 national energy and climate plans, 2022; Annotated Annex I template (part I, Section A) of the Governance Regulation for preparing the updated NECPs.

Box 4

Targets for energy communities in Italy and Poland

In its NECP, **Italy** referred to a €2.2 billion Recovery and Resilience Facility (RRF) measure targeting collective self-consumption and renewable energy communities in municipalities with less than 5 000 inhabitants, the aim being to develop at least 2 GW of renewable energy capacity by 2026. However, it is not aligned with the EU objective, set for municipalities above 10 000 inhabitants, and it does not set a target for the number of communities. In July 2025, **Italy** extended the RRF target to municipalities with up to 50 000 inhabitants.

Poland estimated that it could have 300 energy communities – one third of the 881 Polish municipalities with more than 10 000 inhabitants – by 2030 – and not 2025 as in the EU objective.

Source: Final updated Italian NECP, June 2024; draft updated Polish NECP, March 2024 (the final updated NECP has not been published).

34 Overall, we find that the Commission based the EU objective for energy communities on a stakeholder consultation, but we found no justification of how this objective was determined. Although the objective sets an ambition and is specific and time-bound, it is not fully relevant and is difficult to measure, and the Commission did not analyse whether it was achievable. Moreover, member states' plans do not fully mirror the EU objective in their NECPs, which indicates low national ownership. These limitations risk undermining the effectiveness of EU policy.

Monitoring is incomplete, and the EU's 2025 objective is unlikely to be reached

35 We assessed whether the Commission had established a monitoring system, based on reliable and consistent data, to track progress towards the EU objective, in line with the Commission's commitment[11] to "*monitor progress in the implementation of this initiative on an annual basis*". We also checked whether it reported on progress against this objective.

36 We found that, in 2024, the Commission relied on an ad hoc inventory of energy communities compiled by a contractor to track the number of energy communities. This inventory includes communities not established under the EU definitions, such as about 700 energy cooperatives in the **Netherlands** (see paragraph ***19***), and collective self-

[11] European Commission, EU Solar Energy Strategy, COM(2022) 221.

consumption organisational concepts, for example in **Poland**. It also does not identify which communities are 'renewables-based'. The Commission is aware of these drawbacks, and plans to correct the inventory through the Citizen Energy Advisory Hub, an EU initiative providing technical assistance to citizens and local stakeholders such as energy communities. The Commission did not match the energy communities with the population of the municipalities where they are located in order to monitor progress against the EU objective. It plans to do so in 2026, after the deadline set for the objective. As of December 2025, the Commission had not published any report on progress towards the EU objective.

37 We found that none of the audited member states track national progress towards the EU objective by matching energy communities with municipalities. **Poland** and **Italy** maintain a register, check that communities meet national legal requirements and update their register every week or month. In the **Netherlands**, HIER[12] annually updates an inventory of energy cooperatives by checking their statutes and activity status. **Romania** does not maintain any registration system or inventory of communities. Furthermore, neither the **Netherlands** nor **Poland** have issued guidance clarifying whether cooperatives not established under the EU definitions should be registered in the same way (see paragraph ***30***). While the Commission provided member states with some guidance[13] on registering communities, this guidance was not sufficiently focused on the key elements needed for EU-level monitoring (e.g. whether communities are renewables-based).

38 The lack of systematic monitoring based on reliable and consistent data hinders the ability of national and EU authorities to assess progress towards the EU objective, take corrective action if the objective is likely to be missed, and adjust policies accordingly.

39 We checked whether the EU is on track to achieve its objective at the beginning of 2025. We collected the inventory – covering all member states – delivered to the Commission in November 2024. Although it has limitations (see paragraph ***36***), we consider it to be the best inventory of communities that is currently available. We updated it with figures collected from the audited countries in March 2025. Lastly, we mapped the communities to municipalities with more than 10 000 inhabitants in order to assess progress towards the EU objective.

40 As ***Figure 7*** shows, Denmark, the **Netherlands** and Ireland made good progress towards the EU objective. Other countries were less advanced: for example, less than 10 % of

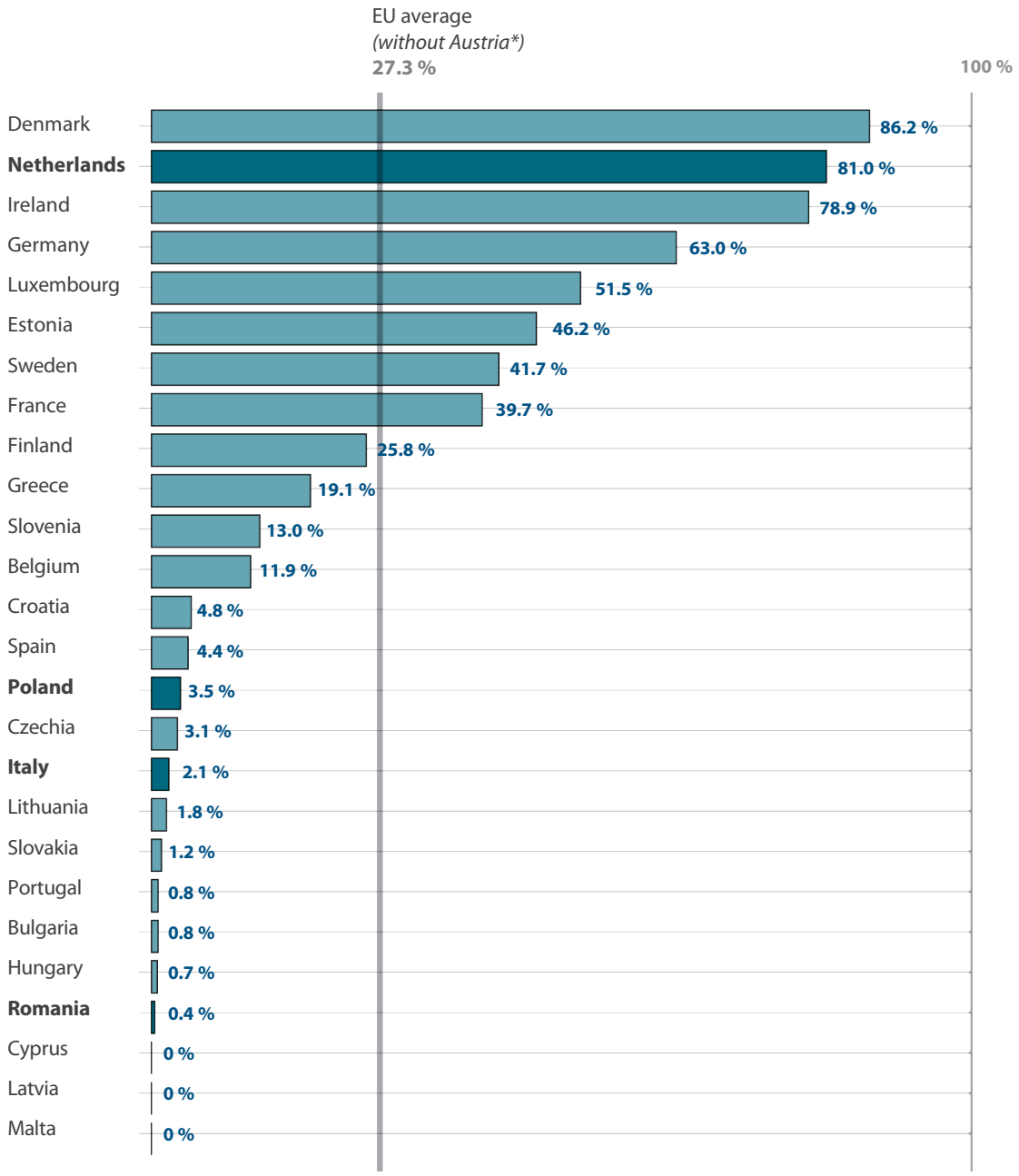
[12] HIER, *Lokale Energie Monitor*, 2024.

[13] See, for example: European Commission, A roadmap to developing a policy and legal framework that enables the development of energy communities, pp. 40-44.

municipalities above 10 000 inhabitants in **Poland**, **Italy** and **Romania** had an energy community. On average, the EU had reached around 27 % of its objective.

Figure 7 | Progress towards the EU Solar Energy Strategy objective

Percentage of municipalities above 10 000 inhabitants with at least one renewables-based energy community



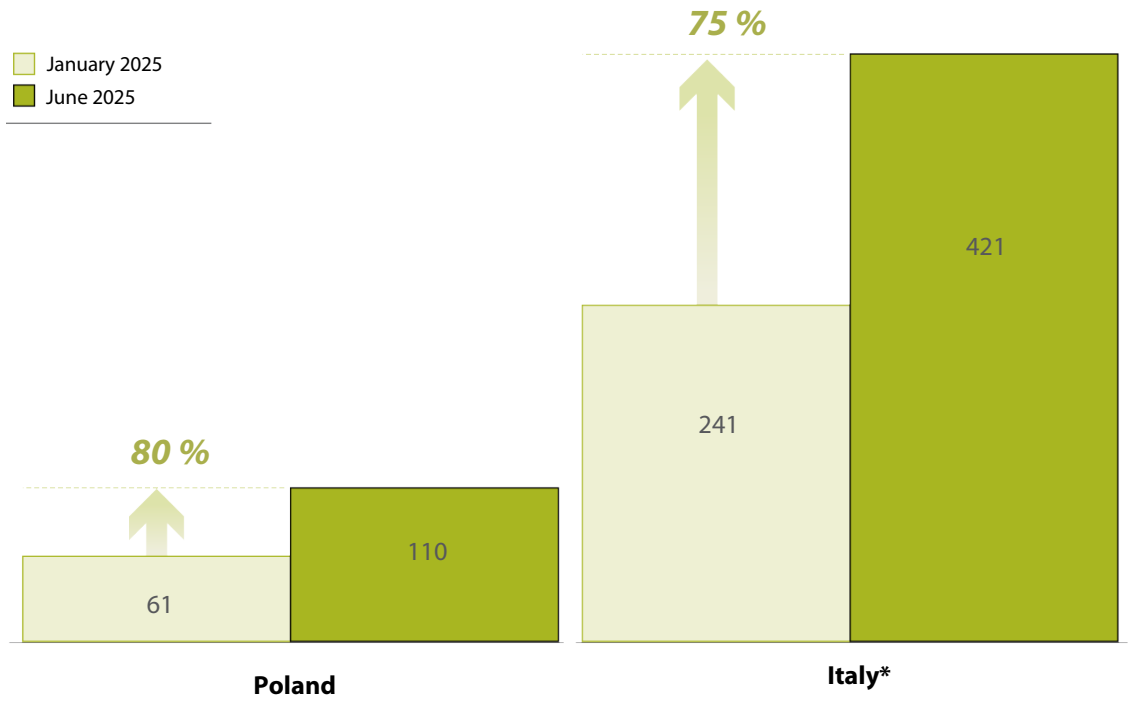
** The TANDEM database did not include any location data for the Austrian energy communities.*

Source: ECA, based on the TANDEM inventory (November 2024), updated with data from national registers in the Netherlands, Poland, Italy and Romania in March 2025, and the Eurostat Local Administrative Units database of 2023 showing the population per administrative unit.

41 Nevertheless, energy communities grew rapidly – by 80 % and 75 % respectively – in **Poland** and **Italy** during January-June 2025 (see ***Figure 8***). The number of cooperatives

remained relatively stable in the **Netherlands** (688 in 2023 and 702 in 2024; 2025 data not yet available) because it was already high and unchanged in **Romania** (one energy community). This dynamic growth provides a positive outlook for the further development of energy communities. Although a direct causal relationship cannot be established, financial incentives in **Poland** (such as reduced network charges) and measures in **Italy** (including RRF subsidies, operational rules, improved guidance, streamlined registration, expanded eligibility, and wider energy-sharing areas) are likely to have contributed to the growth of energy communities.

Figure 8 | Evolution of the number of energy communities between January and June 2025



** Number of "configurations", i.e. groups of people sharing energy in different municipalities*

Source: ECA, based on the Polish and Italian registers.

The audited member states did not establish all the necessary conditions for developing energy communities

Transposition of EU directives is incomplete

42 Member states were required to transpose the IMED by 31 December 2020 and RED II by 30 June 2021. The Commission is responsible for overseeing the application of EU law by member states and taking appropriate action to enforce compliance. We checked whether governments had transposed both directives on time, and the Commission had addressed delays or inadequate transposition.

43 We found that the four audited member states declared full transposition of RED II and the IMED. However, their declarations ranged from five months to nearly four years after the transposition deadlines. According to the Commission's transposition checks, of the four audited member states, only **Italy** had demonstrated transposition of all energy communities' articles of both directives as of July 2025. **Poland** and **Romania** demonstrated that they had transposed all the necessary provisions of the IMED, but not of RED II.

44 The Commission followed up on the lack of transposition by issuing letters of formal notice and reasoned opinions. However, as of June 2025, the Commission had referred none of the four remaining cases of non-transposition (non-transposition of RED II for the **Netherlands**, **Poland** and **Romania** and non-transposition of the IMED for the **Netherlands**) to the European Court of Justice.

45 Incomplete or delayed transposition not only undermines the legislative intent of the directives. It also introduces uncertainties for stakeholders seeking to participate in or launch energy community initiatives.

Half of the audited member states reported on the mandatory national assessment of the barriers

46 RED II requires that governments should assess both the barriers to and potential for developing renewable energy communities. These assessments should provide insights into the barriers faced by energy communities across Europe, and support evidence-based policymaking at national level. We checked whether the audited member states reported on their assessments, and we analysed the existing ones.

47 The Commission collected assessments from 11 member states (41 %). However, it regards several of them as not meeting the requirements of RED II: some are too general (e.g. renewable energy generation capacity in general) or reduced in scope (e.g. assessment of barriers but not of potential). The Commission used these reports for:

- the barriers and drivers report;
- choosing topics for the Concerted Action for the Renewable Energy Directive IV meeting.

48 In the **Netherlands**, the *Hier* foundation published an assessment of barriers[14] in 2023 and 2024. In April 2024, the Dutch authorities reported, in a letter to the Parliament, on the actions planned to address these barriers. The **Polish** Ministry of Climate and Environment published the required assessment in 2024 (see ***Box 5***). The **Italian** Ministry of Environment and Energy claimed that it had worked on the elements of such an assessment. However, it neither prepared nor published a formal report. The two reports provided by **Romania** address market entry barriers only for new renewable electricity production in general, but do not identify the specific barriers faced by energy communities. Moreover, the reports do not assess the potential for developing renewable energy communities.

Box 5

Examples of barriers listed by Polish Ministry of Climate and Environment

- **The legal framework** for energy communities is fragmented between multiple legislative acts, lacks clear interpretation, changes frequently, and is marked by excessive formalism. This creates legal uncertainty and increases administrative and compliance costs.
- Energy cooperatives frequently experience delays or refusals from grid operators when seeking to **connect new renewable energy installations** because of the poor condition of local grids.
- **Financial support schemes** are considered inadequate, overly complex, and difficult to access. Cooperatives struggle to obtain loans due to their limited financial track record and low creditworthiness.

Source: ECA, based on *Analysis of Legal, Administrative and Organisational Barriers Hindering the Development of Energy Communities*, 2024, Polish Ministry of Climate and Environment.

[14] HIER, *Knelpunteninventarisatie energiecoöperaties*, 2024.

49 Thus, we found that only half of the audited countries reported on their assessment of the barriers to and potential for energy communities. In the absence of these assessments, both national and EU actions risk losing effectiveness, slowing the expansion of energy communities.

Guidance exists, but is often difficult to apply without expert help

50 The Commission should provide guidance (e.g. guidelines, forums for information exchange, and training) to member states on supporting the development of energy communities. In turn, national authorities should provide guidance and tools (e.g. templates, training, advisory services, and online information) so as to enable citizens, small businesses and local authorities to create and operate energy communities easily. We examined whether the Commission and member states had issued clear guidance to support the development of energy communities.

51 The **European Commission** supported national authorities and energy communities by holding events (see examples in ***Box 6***), and provided guidance through, for example, the Energy Communities Repository: it published guides on barriers and drivers, one stop-shops, and energy sharing. The Commission plans some updates in 2026, including a revised EU-wide barriers report and new guidance under the Citizen Energy Advisory Hub.

Box 6

Examples of Commission events on energy communities

The annual Citizens Energy Forum allows for exchanges of best practices regarding consumer issues, including energy communities.

Co-funded under Horizon 2020 and running from 2021 to 2026, the Concerted Action for Renewable Energy Directive IV[15] allows countries to exchange experiences on RED II implementation.

The Commission also organised ad hoc seminars, for example on the citizen energy communities' provisions of the IMED in May 2022 and on self-consumption, active customers and energy communities in May 2025.

[15] CA-RES IV, *Concerted Action on the Renewable Energy Directive*, Horizon 2020 project, 2021 2026.

52 In the four member states we visited, national authorities were satisfied overall with the Commission's support. However, they would welcome more exchanges of best practices and tailored support, for example to draft secondary legislation.

53 National governments also provided guidance to support the development of energy communities. The **Netherlands** co-finances two organisations, Energie Samen and HIER, which support energy communities with training, templates and tailored administrative services. Communities consulted through the focus groups found this support sufficient and suited to their needs. However, the two communities we visited encountered difficulties in securing timely support from municipal administrations due to a lack of local expertise. The issue was also highlighted by non-governmental organisations (NGOs) in **Italy** and **Poland**[16].

54 In **Poland**, several programmes aimed to facilitate the development of communities (e.g. the Energy for Rural Areas loan scheme, the RENALDO project, and the COMMENCE guidelines). These initiatives produced handbooks, calculation tools and training material. Despite these efforts, half the communities consulted through the focus group lacked support, or found the guidance too complex. The NGOs we met confirmed that support is fragmented and not accessible to non-experts.

55 In **Italy**, the GSE website[17] hosts explanatory videos, legal templates and interactive tools for registering and operating communities. National authorities also organised awareness-raising events. Our discussions with energy communities and other stakeholders show that communities considered the guidance extensive and well-structured, but felt that using it often requires professional interpretation. Although **Italy** had established a national observatory in 2023 to disseminate good practices, it had not yielded results by the time of our audit.

56 In **Romania**, the National Regulatory Authority (NRA) for Energy[18] provided information on request, but no dedicated material was publicly available as of April 2025. A network of 42 one-stop-shops became operational in 2025. The Ministry of Energy stated that further guidance would be developed once secondary legislation has been adopted.

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[16] Life Loop, ConnectHeat, Comanage, Tandems, *Enabling frameworks for energy communities: a state of play*, Energy Cities, 2025, pp. 21 and 24.

[17] GSE, *Autoconsumo – elenco delle configurazioni*.

[18] National Regulatory Authority for Energy (ANRE), anre.ro – Autoritatea Națională de Reglementare în Domeniul Energiei.

57 Overall, the Commission's guidance has effectively supported member states and citizens in developing energy communities. In the Netherlands – where over a hundred cooperatives already existed ten years ago – national assistance is well-structured, practical and easy to access. By contrast, in Poland, Italy and Romania, the information available is more fragmented or harder to use without expert support, creating barriers for emerging communities.

Gaps remain in citizen involvement and inclusion of vulnerable households

58 Increasing participation by citizens and bringing benefits for vulnerable households is one of the Commission's stated aims for energy communities (see ***Figure 2***). In line with RED II, the Commission and member states had to ensure that communities involve citizens. Prioritising natural persons as members helps to increase public acceptance of renewable energy projects[19]. RED II also requires member states to allow vulnerable households to access communities. We analysed whether the Commission had issued legal provisions or guidance to promote the involvement of citizens and vulnerable households, and whether member states had established legislation or support measures to this end.

59 The Commission's original legislative proposal[20] included a minimum threshold for citizen membership of renewable energy communities, but this requirement was not retained in the final directive. The Commission's interpretative guidance allows member states to introduce stricter national definitions – such as requiring at least 51 % of members with voting rights to be natural persons – but does not mandate it. The directive supports the involvement of vulnerable households by requiring them to be given the opportunity to join renewable energy communities. The Commission also provided member states with guidance[21] on the involvement of vulnerable households, but the stakeholders we met in the four audited member states were not aware of it. Furthermore, it has not been updated in the light of recent EU-financed research work[22] and policy developments, e.g. the establishment of the EU Social Climate Fund.

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[19] E.g. *Effects of trust and public participation on acceptability of renewable energy projects in the Netherlands and China*, ScienceDirect, 2019.

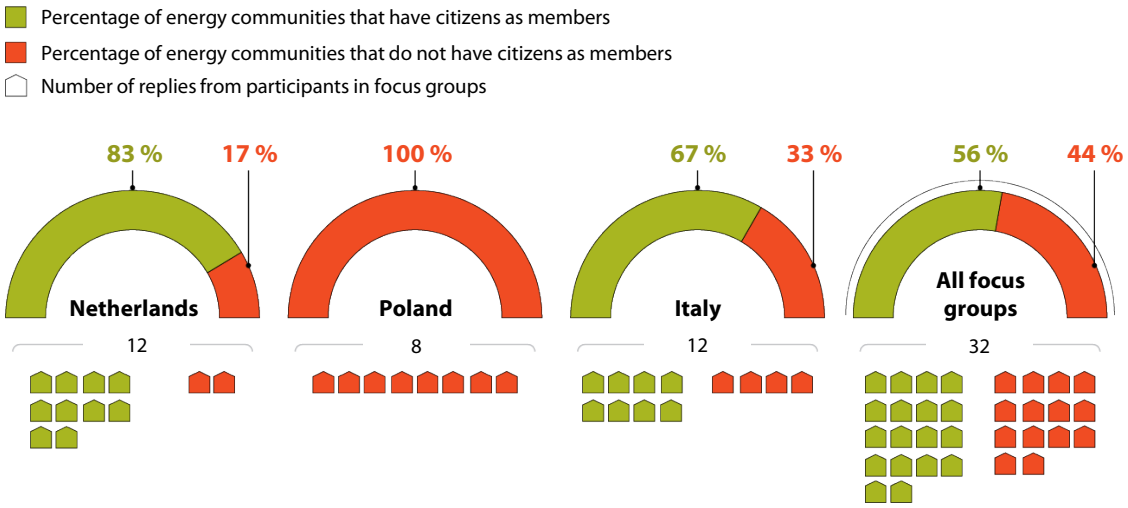
[20] European Commission, COM(2016) 767, 2016.

[21] See, for example: European Commission, Commission Staff Working Document (SWD/2023/647): EU guidance on energy poverty, 2023.

[22] See, for example: Territorial Analysis of Decentralised Energy Markets, ESPON.

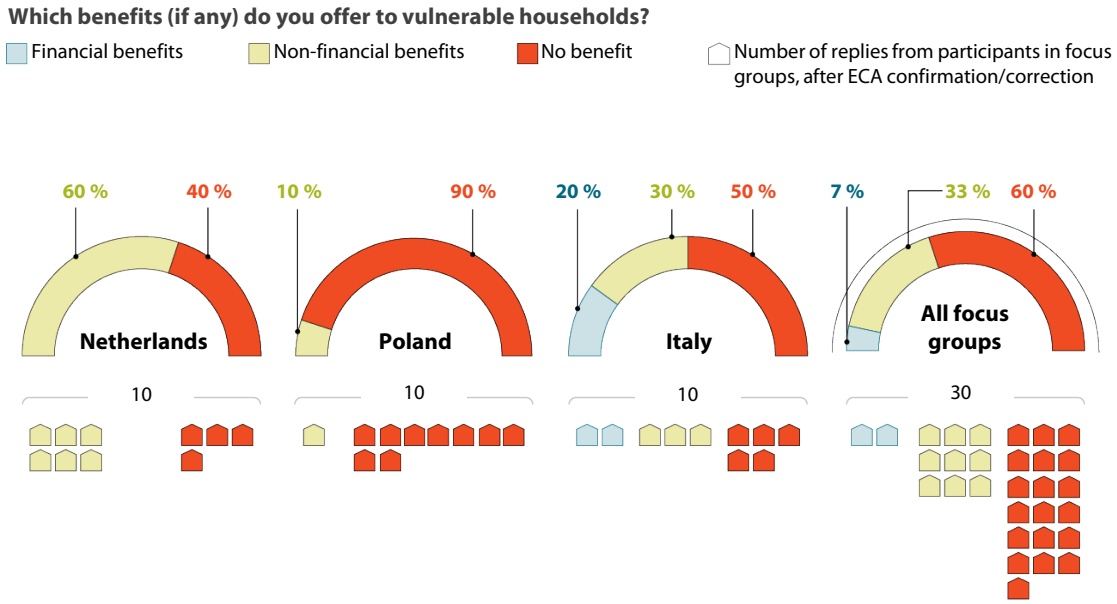
60 About half the energy communities which joined our focus groups have citizens as members (see ***Figure 9***). 40 % offer some support to vulnerable households, including free access to solar energy, financial assistance, or energy-saving advice (see ***Figure 10***).

Figure 9 | About half the consulted energy communities have citizens as members



Source: ECA, based on focus groups.

Figure 10 | 60 % of consulted energy communities offer no benefits for vulnerable households



Source: ECA, based on focus groups and confirmation/correction of replies through internet research.

61 The **Netherlands** does not require energy cooperatives to include citizens or to support vulnerable households. However, it does offer incentives for including citizens: the Subsidy Scheme for Cooperative Energy Generation (see paragraph ***78***) requires a minimum

number of participants per project (one per 5 kW of generation capacity) and that all participants should have equal voting rights. 83 % of the Dutch communities that participated in focus groups had citizens as members, and 60 % offered benefits to vulnerable households.

62 **Poland** does not legally require the presence of citizens in energy cooperatives, clusters or citizen energy communities. Most energy communities are actually made up entirely of legal entities. In a random sample of 20 cooperatives (out of 94), only 10 % included citizens as members. The Polish register published in August 2025 reported that the 127 cooperatives had on average 3-4 members per cooperative: this low number shows the predominance of institutional stakeholders over citizens. 2024 research[23] also indicated that the involvement of residents is too small. There is no specific provision relating to the involvement of vulnerable households. None of the Polish communities that participated in focus groups had any citizen members, and only one offered non-financial benefits to vulnerable households.

63 **Italy** does not legally require the presence of citizens in energy communities and does not require them to support vulnerable households. In May 2025, to encourage individuals to participate in Renewable Energy Communities, Italy extended eligibility for the full premium tariff on shared energy from RRF-financed installations to individuals; previously, this eligibility was limited to public and non-profit entities[24]. Two thirds of the **Italian** communities we consulted through our focus groups had citizens as members, and half of the communities provided support for vulnerable households. We also identified two regions where European Regional Development Fund mechanisms incentivise inclusion of vulnerable households: one assigns[25] additional points to project proposals that address social inclusion, and another[26] increases grant values for energy communities involving vulnerable groups.

64 95 % of the members of the only **Romanian** energy community are citizens. There is no national legislation promoting citizens' inclusion. In November 2025, **Romania** enacted

[23] D. Kostecka-Jurczyk, M. Struś, K. Marak, *The Role of Energy Cooperatives in Ensuring the Energy and Economic Security of Polish Municipalities*, 2024.

[24] Decreto del Ministro dell'ambiente e della sicurezza energetica n° 127 of 16 May 2025, Article 1, comma 1, sub f), ii.

[25] Regione Lombardia, *Bando RELOAD CER*, 2025.

[26] Regione Lazio, *Avviso pubblico CER – Allegato al Decreto G17990*, 2024.

legislation allowing energy communities to offer preferential prices to vulnerable and energy-poor consumers[27].

65 In **Poland**, **Italy** and **Romania**, the absence of provisions or incentives to ensure minimal participation by citizens increases the risk that companies or municipalities may form communities only to access targeted benefits. This risk was highlighted by NGOs such as REScoop.eu[28] and the Romanian NRA[29]. The European Economic and Social Committee (EESC) warned[30] that "*too many investments are made without real local involvement or shared value, reinforcing a top-down model that risks public resistance*". It advises linking energy subsidies to community participation and ensuring that tenants and vulnerable citizens are included in energy communities.

66 Our analysis demonstrates that citizens are not well represented in **Polish** communities but are well represented in the **Dutch**, **Italian** and **Romanian** energy communities, although legislation does not make their presence mandatory. As for support for vulnerable households, only **Romania** established dedicated legislation, and **Italy** provides incentives to this end. While the Commission provided guidance on engaging citizens, the guidance on the participation of vulnerable households had not been updated and the stakeholders we met were unaware of it.

Energy communities, as renewable energy producers, face long delays for grid connection

67 Although EU law does not set specific deadlines for connecting energy communities to the grid, RED II, Council Regulation (EU) 2022/2577 and Directive (EU) 2023/2413 'RED III' contain provisions for speeding up grid connections in various contexts. We therefore expected Distribution system operators (DSOs) to process grid connection requests by energy communities as quickly as those by other renewable energy producers, so as to establish and adhere to predictable timeframes for granting grid access.

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[27] Government Emergency Ordinance No. 59/2025 of 7 November 2025.

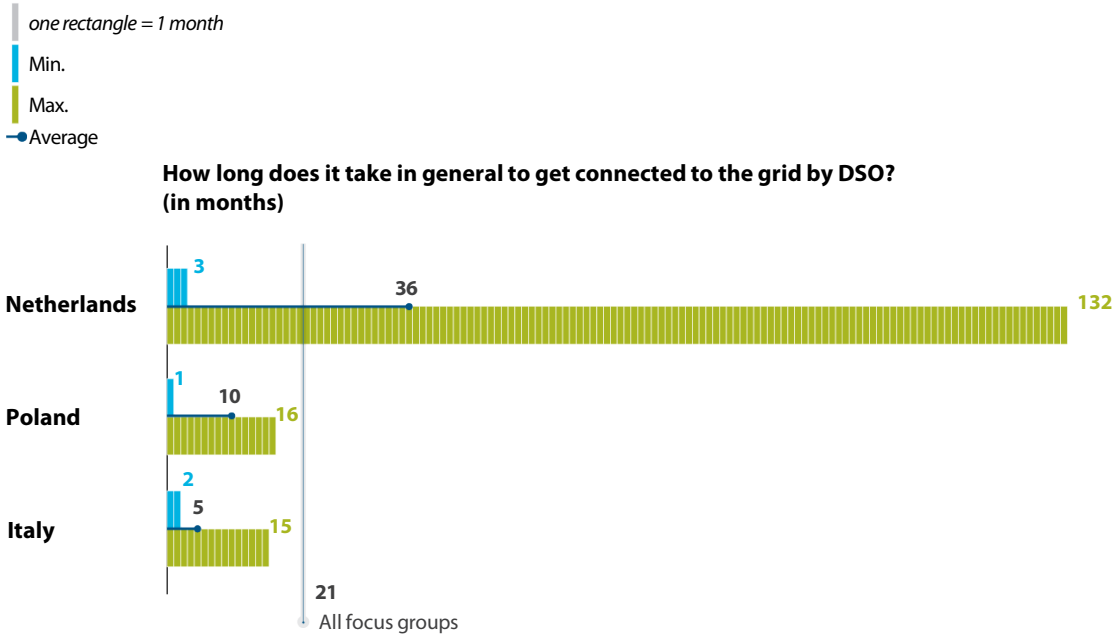
[28] REScoop.eu, *Energy communities: building bridges for energy democracy*, May 2024.

[29] ANRE and Romanian Council for Competitiveness, *Final report on legislative barriers to connecting new renewable electricity capacities to the National Electricity System*, 2023, p. 75.

[30] Citizens' Energy Package: citizens' engagement, energy communities and prosumerism, European Economic and Social Committee, 2025, paragraph 4.6.

68 The energy cooperatives that joined our focus groups referred to average connection times of nearly two years (see ***Figure 11***).

Figure 11 | Grid connection times of consulted energy communities vary widely between countries, with the longest delays in the Netherlands

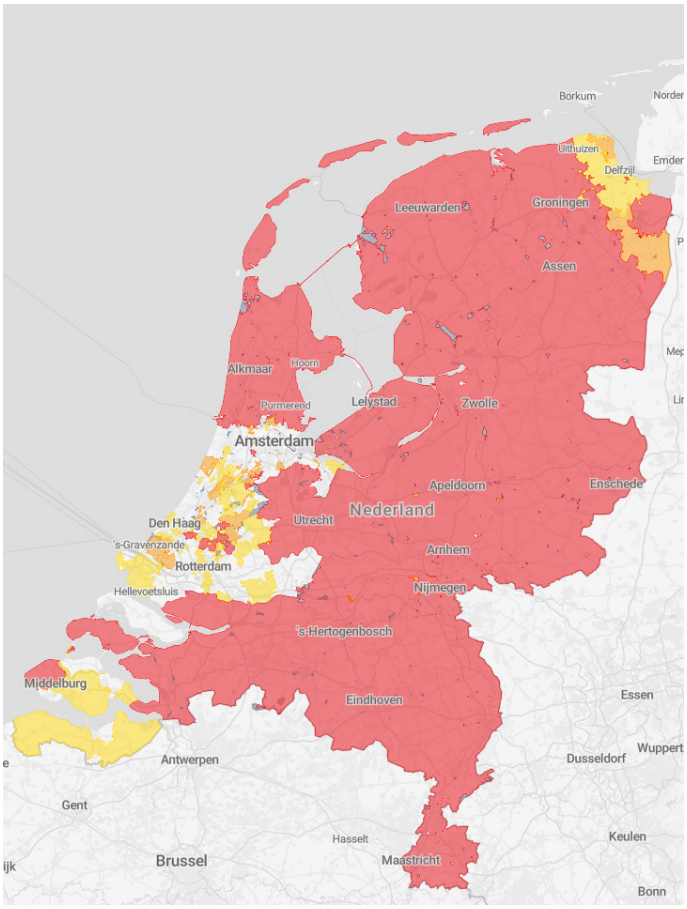


Source: ECA, based on focus groups.

69 **Dutch** energy law prohibits discrimination between user categories when processing grid connection requests. For connections of 50 kW or less, access must be granted within 84 days if no excavation is required, or 126 days otherwise. However, a grid congestion map established by the DSO shows that in most of the country (see ***Figure 12***), grid congestion prevents timely connection of renewable energy projects, including those proposed by energy communities. The Dutch assessment of barriers 2024 recalls that "*connection to the electricity grid remains persistently problematic*". The participants in our focus group needed an average of 1 000 days (3 years) to get connected. In such cases, DSOs place applicants on a waiting list until the congestion is resolved. One DSO reported that the average connection time for new renewable energy projects increased from 210 to 280 days (+33 %) between 2020 and 2024. As of 2024, over 4 GW of renewable capacity was waiting to be connected[31] – enough to supply electricity to three million people.

[31] ABN AMRO, ESG Economist - Dutch grid delays cost up to EUR 376 million every year, September 2024.

Figure 12 | Grid congestion in the Netherlands



Source: Partners in Energie, *Capaciteitskaart – Totaal afname*, accessed June 2025. © Netbeheer Nederland, © powered by Esri Nederland, © MapTiler, © OpenStreetMap contributors.

70 **Poland** identified delays or refusals from DSOs as a main barrier to the development of cooperatives (see ***Box 5***). Although a preferential connection time of 30 days applies to energy cooperatives with micro-installations (up to 50 kW), the participants in our focus group needed an average of 300 days (10 months) to get connected.

71 **Italy** set no specific procedures or priority for energy communities, although grid operators must give priority to connection requests from renewable installations and process them within specific deadlines – for example, within 10 days for solar installations up to 200 kW. However, the average connection time of a large DSO was 105 days in 2024. The participants in our focus group referred to an average timeframe of 150 days (5 months) to be connected to the grid.

72 In **Romania**, there is no specific procedure for energy communities. For capacities of less than 400 kW, DSOs have 20 days to connect new prosumers or existing prosumers, when no additional works are necessary. Otherwise, they have up to 62 days.

73 Even when connected to the grid, the energy communities we met said that DSOs could switch off their connection when electricity generation exceeds grid capacity. For example, in **Poland**, 600 GWh of renewable electricity overall was curtailed in the first half of 2025[32] – up 34 % from the same period in 2024. The Agency for the Cooperation of Energy Regulators estimated that congestion cost €4 billion in the EU in 2023. The Commission's Joint Research Centre estimated that between 111 and 310 TWh of EU renewable electricity could be curtailed due to grid congestion in 2040.

74 Researchers[33] claim that by bringing energy generation closer to consumption, energy communities can help to alleviate grid congestion[34], reduce the need to transport electricity over long distances[35], and so reduce energy losses[36]. The Commission also highlighted that self-consumption can be beneficial to the grid[37]. However, to maximise such benefits, the energy produced should be consumed within the community in real time (i.e. every second, as it is generated)[38]. This is usually not the case: energy communities' production patterns (such as solar generation peaking at midday and ceasing at night) do not match typical consumption patterns (which peak early morning and early evening).

75 The DSOs we met in the **Netherlands** and **Poland** underlined that they would be willing to connect new renewable electricity assets to the grid faster if energy generation were coupled with demand response, load shifting or energy storage, because this would decrease grid congestion. Research[39] and stakeholders[40] also stressed the need to

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[32] A. Vassileva, *Poland adds 637 MW of solar capacity in Q1*, Renewables Now, July 2025.

[33] P. Ponnaganti, N. Andreadou, A. Purvins and M. Masera. *Flexibility provisions through local energy communities: A review*, *Next Energy*, Vol. 1, Issue 2, Article 100022, 2023.

[34] *Trading in smart energy communities: the more the merrier?*, CWI, February 2024.

[35] S. E. Berggren, E. Olausson, K. Tews, P. D. Lund, M. B. Blarke et al., *Energy Communities*, Nordic Energy Research, 2023.

[36] I. Diahovchenko and L. Petrichenko, *Assessment of energy losses in power distribution systems with individual prosumers and energy communities*, The Journal of Engineering, 2023.

[37] *In focus: Energy communities to transform the EU's energy system*, European Commission, December 2022.

[38] Knirsch, F., Langthaler, O. and Engel, D., *Trust-less electricity consumption optimization in local energy communities*, Energy Informatics, 2019.

[39] P. Ponnaganti, N. Andreadou, A. Purvins and M. Masera, *Flexibility provisions through local energy communities: A review*, *Next Energy*, Vol. 1, Article 100022, 2023.

[40] REScoop.eu, Response to the Commission's call for evidence on the Citizens Energy Package, September 2025, p. 5 and pp. 32-34.

combine the development of renewable electricity assets with such flexibility services, especially storage, to balance supply and demand every second, reduce grid congestion during peak times, and increase self-consumption. The Commission also emphasised the importance of load-shifting[41] and of combining solar rooftops with energy storage[42]. It has also started to take action, for example as part of the revised EU renewable energy rules and its 2025 proposal on the acceleration of permit-granting procedures to support electricity storage, but not specifically for energy communities. In **Poland**, we found that clusters (but not cooperatives or citizen energy communities) are expected to benefit from reduced tariffs for installing energy storage once the relevant measure is adopted by the Commission. We found no such incentives in the other audited member states. The **Netherlands** recognised that "*currently, energy communities lack concrete financial incentives for matching supply and demand and for system optimisation, which could potentially exacerbate grid congestion*"[43].

76 Overall, we found no evidence of discrimination against energy communities when their grid connection requests were being processed. However, delays and refusals of grid connections due to grid congestion slow down the development of energy communities in the **Netherlands** and **Poland**. According to research, DSOs and the Commission, one way to accelerate these connections is for energy communities to provide flexibility services.

Financial incentives for energy communities allow paybacks aligned with the EU Solar Energy Strategy ambition

77 The lack of predictable and accessible financing has been recognised as a major obstacle for energy communities, particularly during the early stages of project development. To address this, the EU Solar Energy Strategy states that member states should establish robust support frameworks for solar rooftop systems – the typical energy source for communities – based on predictable payback times of less than 10 years. In line with RED II and the IMED, energy communities should also be subject to 'cost-reflective network charges', meaning they should not bear charges for costs they do not cause, nor receive exemptions that would unfairly shift the financial burden onto other network users without access to self-consumption.

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[41] *In focus: Energy communities to transform the EU's energy system*, European Commission, December 2022.

[42] European Commission, EU Solar Energy Strategy, 2022.

[43] Letter from the Minister for Climate and Green Growth to the President of the House of Representatives of the States General (Parliament), The role of energy communities in the energy system, September 2025.

78 We analysed whether financial incentives to energy communities in the audited member states allowed reasonable payback periods. *Table 1* summarises the financial incentives for energy communities in the member states we visited.

Table 1 | Summary of financial incentives specific to energy communities

Member state	Exemptions from network charges	Support schemes
Netherlands	Not applicable	• Revolving development funds • Feed-in premium on energy generated
Poland	• Cooperatives: Exemption from renewable energy, capacity, cogeneration and distribution fees • Clusters: Exemption from renewable energy and cogeneration fees, reductions in distribution service fee • Citizen Energy Communities: Not applicable	• Cooperatives and clusters: RRF support for renewable energy infrastructure • Cooperatives: Net-metering • Citizen Energy Communities: Not applicable
Italy	Variable component of the transmission tariff is reimbursed for electricity shared within the community	• Feed-in premium on energy shared • RRF support for renewable energy infrastructure
Romania	Not applicable	Not applicable

Source: ECA.

79 The **Netherlands** do not offer exemptions from network charges, but there are two types of support schemes specific to energy cooperatives:

- a revolving development fund providing loans to energy cooperatives for the start-up costs of wind and solar projects (see *Box 7*);
- the Subsidy Scheme for Cooperative Energy Generation, a feed-in premium calculated yearly, aiming to make energy cooperatives' installations profitable.

Box 7

The Renewable Generation Development Fund in the Netherlands

Cooperatives can apply for interest-free loans (€10 000 to €300 000 depending on the project phase; up to 80 % of development costs for wind and solar projects), intended for project leadership, feasibility studies, permit applications, and other preparatory expenses. The cooperative itself contributes 20 % in cash or volunteer hours.

Loans are risk-free for cooperatives: if a project is cancelled, the loan is forgiven, but if it reaches financial closure, the cooperative repays the loan with a levy, ensuring the fund's self-sufficiency. This mechanism strengthens local cooperative initiatives at an early stage, when projects entail the greatest risk.

The Commission[44], REScoop.eu[45], the EESC[46] and other NGOs[47] consider this Fund as a good practice. According to REScoop.eu[48], each €1 of public investment crowds in €40 of private investment.

Source: ECA based on Energie Samen, *Voorwaarden Ontwikkelfonds Opwek voor aanvragers en projecten*, June 2024.

80 We analysed the payback periods for six cooperative-owned projects. The period ranged from 6 to 12 years, largely as recommended by the EU Solar Energy Strategy for solar rooftops (see ***Figure 13***). The variation reflects changes in energy prices and the annually calculated feed-in premium.

[44] European Commission, Looking at energy communities through a local authority lens: perceptions, experiences and needs, 2024. European Commission, A roadmap to developing a policy and legal framework that enables the development of energy communities.

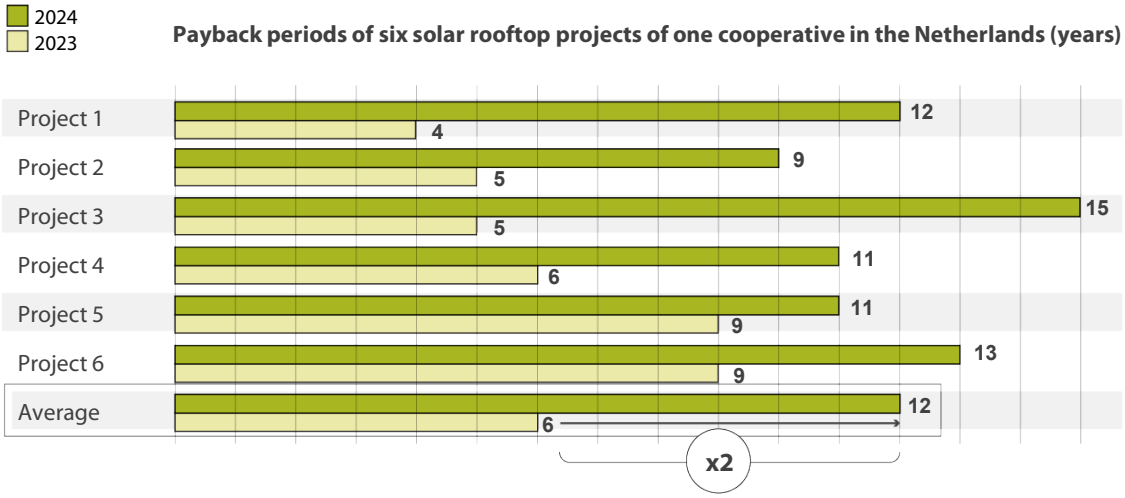
[45] REScoop.eu, Leveraging European Public Funds to Support Energy Communities.

[46] Citizens' Energy Package: citizens' engagement, energy communities and prosumerism, European Economic and Social Committee, 2025, paragraph 1.3.

[47] J. Arnould and D. Quiroz, Friends of the Earth, Energy communities in the EU: Opportunities and barriers to financing, October 2022.

[48] REScoop.eu, Response to the Commission's call for evidence on the Citizens Energy Package, September 2025, p. 27.

Figure 13 | Payback periods align with Solar Energy Strategy expectations, but vary with energy prices and the feed-in premium calculation



Source: ECA, based on the 2023 and 2024 financial statements of an energy cooperative.

81 In **Poland**, energy cooperatives benefit from network charge exemptions, namely from renewable energy, capacity, cogeneration and distribution fees. Clusters are exempted from renewable energy and cogeneration fees and can lower their distribution tariff (still subject to the Commission's state aid approval). In addition, both energy cooperatives and clusters can receive RRF support for renewable energy infrastructure (up to 91-95 % of costs) and cooperatives can also benefit from net-metering: members can, for every kilowatt hour fed into the grid, draw 0.6 kWh for free on a rolling 12-month basis. According to research[49], Polish energy cooperatives could, through these mechanisms, theoretically achieve a payback period of 2.5 to 3 years – consistent with our analysis of both a cooperative and a cluster that plan to recover their investment within three years. Citizen energy communities do not benefit from any exemption nor support scheme.

82 In **Italy**, communities benefit from exemptions from network charges, as the variable part of the transmission tariff is reimbursed for electricity shared within the community. In addition, it offers two main incentives for renewable energy communities: a feed-in premium on the energy shared within the community (calculated on an hourly basis), paid for 20 years at around €0.10 per kWh, and a capital grant covering up to 40 % of eligible investment costs, funded through the RRF. Various case studies indicate payback periods of 5 to 14 years (see ***Box 8***). The Italian authorities estimated payback times of 11 to 13 years for five theoretical projects to justify state aid intensity.

[49] J. Jasinski, M. Kozakiewicz, M. Sołtysik, *Analysis of the Economic Soundness and Viability of Migrating from Net Billing to Net Metering Using Energy Cooperatives*, Energies, vol. 17, no. 6, 2024.

Box 8

Examples of payback periods for Italian renewable energy communities

An economic feasibility analysis of a renewable energy community in the municipality of Tirano (Lombardy), equipped with a biomass cogeneration plant, a mini-hydro plant, and a photovoltaic system, found a payback period of around 5 years[50].

A feasibility study of a Calabrian renewable energy community with energy generation and storage found a payback period ranging from 6 to 8 years[51].

A 2 MWp renewable energy community led by the municipality of Assisi (Umbria) calculated a payback period of around 8 to 14 years[52].

83 **Romania** does not offer exemptions from network charges, and energy communities are not eligible for any schemes or subsidies. The stakeholders we met and a recent NGO report highlighted this as a main challenge.

84 In all four audited countries, network charges are paid in proportion to electricity consumed from traditional suppliers. When community members consume the electricity which they produce, or which is shared by other members in **Italy**, they do not pay all the corresponding network charges, thus reducing their financial contribution to maintaining and developing the grid. However, they remain connected to the grid to cover periods when self-generation is insufficient or unavailable – a pattern common to all types of prosumers. This means that, as energy communities and self-consumption expand, a larger share of network costs is borne by consumers who are not part of such communities and

[50] F. Ceglia, E. Marrasso, C. Roselli and M. Sasso, *Biomass-based renewable energy community: economic analysis of a real case study*, Energies, vol. 15, no. 15, 2022.

[51] D. Cirone, R. Bruno, P. Bevilacqua, S. Perrella and N. Arcuri, *Techno-Economic Analysis of an Energy Community Based on PV and Electric Storage Systems in a Small Mountain Locality of South Italy: A Case Study*, Sustainability, vol. 14, no. 21, 2022.

[52] E. Moretti, E. Stamponi, *The Renewable Energy Communities in Italy and the Role of Public Administrations: The Experience of the Municipality of Assisi between Challenges and Opportunities*, Sustainability, vol. 15, no. 15, 2023.

do not have access to generation assets – typically less affluent households[53]. None of the audited member states formally assessed how reduced charges, self-consumption, and energy sharing affect other consumers.

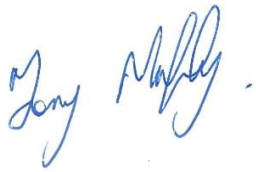
85 Given the high number of prosumers and energy cooperatives in the **Netherlands**, and the introduction of energy sharing as of January 2025, the Dutch NRA is concerned about this risk. One solution could be to design fixed – instead of proportional – network charges because they allow a fairer distribution of the burden. Another possible solution could be Time of Use pricing – a dynamic tariff structure where the cost of electricity varies depending on the time of day.

86 Overall, our assessment indicates that public support in the **Netherlands**, **Poland** and **Italy** enables payback periods in line with the Commission's expectations. In the **Netherlands**, a revolving fund is an effective way of using public funds. It helps energy cooperatives to cover the upfront costs of wind and solar projects in the early development stages, which is a common bottleneck. In **Romania**, however, the absence of subsidies hampers the emergence of energy communities. We also conclude that member states did not formally assess how reductions in network charges impacted other consumers.

[53] M. Van Steenberghe, A. D'hulster, J. Weytjens, M. Ovaere, and K. Schoors, Tracking Demographic and Financial Trends in Renewable Energy Cooperative Membership in Belgium Using Survey and Bank Transaction Data, no. 1093 (2025); G. Koukoufikis, H. Schockaert, D. Paci, F. Filippidou, A. Caramizaru et al., Energy Communities and Energy Poverty, JRC Science for Policy Report, EUR 31751 EN (Luxembourg: Publications Office of the European Union, 2023); European Environment Agency, Energy prosumers in Europe: Citizen participation in the energy transition, EEA Report No. 01/2022 (Luxembourg: Publications Office of the European Union, 2022).

This report was adopted by Chamber I, headed by Mrs Joëlle Elvinger, Member of the Court of Auditors, in Luxembourg at its meeting of 11 February 2026.

For the Court of Auditors



Tony Murphy
President

Annexes

Annex I – About the audit

Energy communities

01 Energy communities are legal entities that empower citizens, small businesses and local authorities to produce, manage, share and consume their own energy. According to the Commission, they could bring several benefits:

- contribute to the **EU Renewable Energy target** by attracting additional private investments to build decentralised renewable energy generation assets;
- increase **citizens' participation** – including those who cannot build their own energy generation assets (e.g. tenants, low-income families and apartment residents) – to drive the energy transition locally. This can facilitate the **public acceptance** of local renewable energy projects;
- reduce **energy poverty**, as the power produced can be sold to the grid or shared among communities' members, thereby ensuring more stable electricity prices and lowering bills for members, including **vulnerable households**.

Funding, roles and responsibilities

02 As beneficiaries of renewable energy measures, energy communities are eligible for several EU funds, such as the European Regional Development Fund and the Recovery and Resilience Facility (RRF). In particular, the RRF includes measures with an estimated cost of **€5.2 billion** supporting energy communities either directly or indirectly (e.g. through renewable energy measures), to be disbursed by December 2026. Energy communities can use these funds to install solar panels or build windmills, for example.

03 The roles and responsibilities of the Commission and member states are summarised in *Figure 1*.

Figure 1 | Roles and responsibilities

Source: ECA.

Audit scope and approach

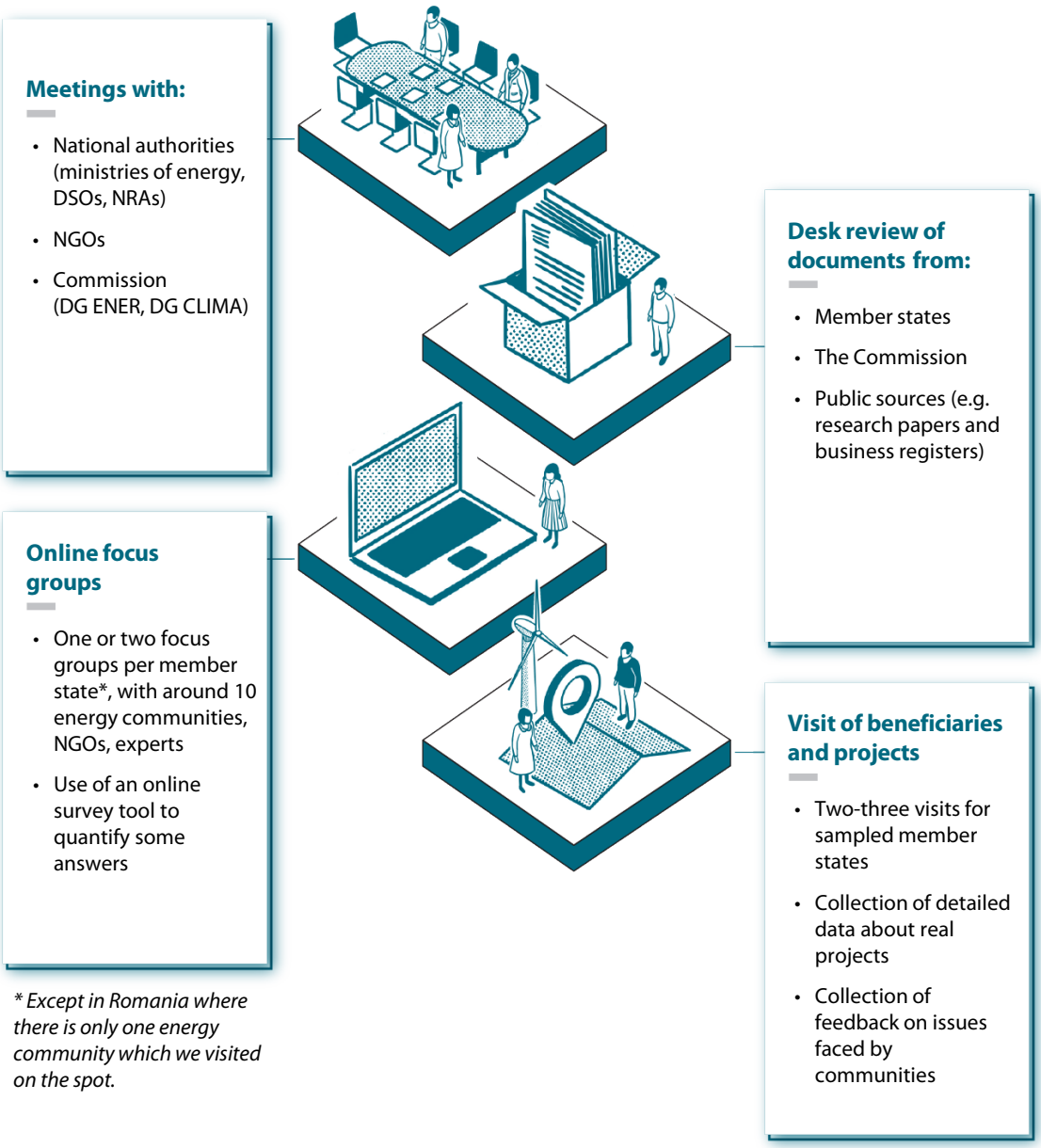
04 The aim of our audit was to assess whether the Commission and member states **effectively engage energy communities** to meet the EU objective set in the EU Solar Energy Strategy and deliver their expected benefits. To do so, we examined whether:

- the Commission set SMART **EU objectives**, endorsed by member states, which are adequately monitored and on track to be reached;
- the Commission and member states established the **right conditions** for energy communities to thrive.

05 The audit covered the Commission and four member states during the December 2020 - July 2025 period, which follows the transposition deadlines of the relevant directives: Directive (EU) 2019/944 on the internal market for electricity and Directive (EU) 2018/2001 on the use of energy from renewable sources. We focused the audit on renewable energy generation, for which the EU set a political objective, rather than on other energy services (such as energy efficiency). Our audit methodology complies with the international standards on auditing issued by the International Organization of Supreme Audit Institutions (INTOSAI).

06 ***Figure 2*** shows how we obtained evidence for our observations. With our focus groups and on-the-spot visits, we consulted 2 %, 20 %, 13 % and 100 % of communities in the **Netherlands**, **Poland**, **Italy** and **Romania**, respectively (see ***Table 1***). The EU Federation of Energy Communities and national NGOs, representing energy communities, provided additional input.

Figure 2 | Audit approach



** Except in Romania where there is only one energy community which we visited on the spot.*

Source: ECA.

Table 1 | Representativeness of focus groups and on-the-spot visits

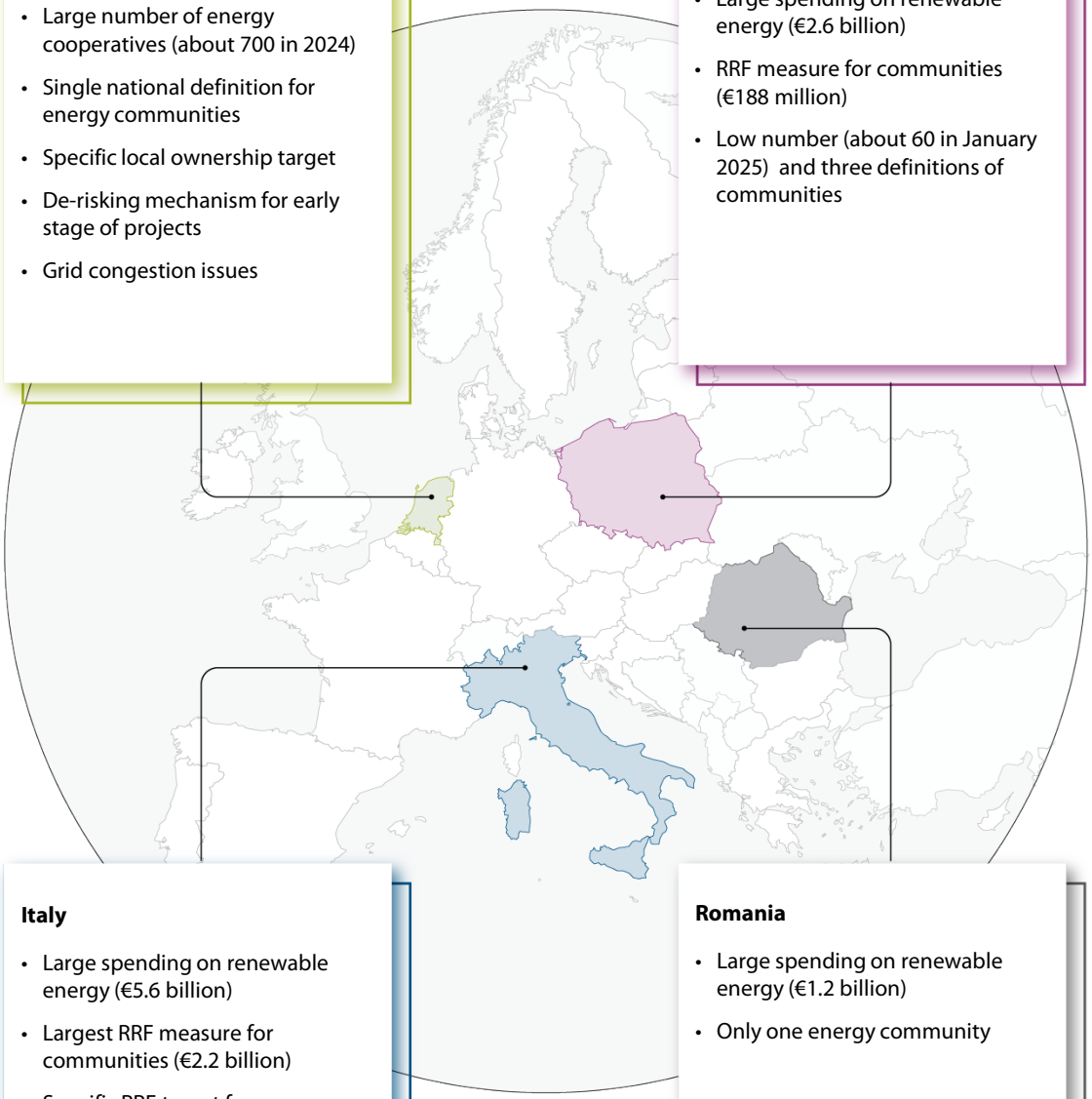
Member state	Number of energy communities as of January 2025	Participants in the focus groups	Communities visited on-the-spot	Representativeness of ECA sample
Netherlands*	702	14	2	2 %
Poland	61	10	2	20 %
Italy**	121	12	4	13 %
Romania	1	0	1	100 %

* 2024 data; 2025 data not available.
** Number of legal entities, not number of configurations.

Source: ECA.

07 We selected four member states for audit, based on their representativeness of the EU situation (see ***Figure 3***).

Figure 3 | Why the member states were selected



Source: ECA.

Annex II – Energy communities visited

Member state	Name	Number of members	Renewable energy infrastructure	Generation capacity (kWp)	Energy production 2024 (MWh)
Netherlands	Kennemer Kracht	315	Solar roofs	661	479
Netherlands	Vrijstad Energie/ Vrijstad Windwinning	375	Solar roofs and parks, windmills	7 351	11 001
Poland	Słoneczna Żywiecczyzna	10	Solar roofs, geothermal	20 000	23 284
Poland	Klaster Energii Powiatu Bielskiego	12	Solar roofs	975	976
Italy	La Buona Fonte	25	Solar roofs	19	20
Italy	Comunità energetica rinnovabile Antrodoco	49	Solar roofs	60	0
Italy	Comunità energetica rinnovabile diocesi Treviso	340	Solar roofs	1 900	1 430
Romania	Cooperativa de Energie	949	None as of April 2025	0	0

Annex III – Member states' replies to recommendations

Recommendation	Member state	Reply
Recommendation 4 **Report on the assessment of barriers to and the potential for developing renewable energy communities** The Italian Ministry for Environment and Energy Security and the Romanian Ministry of Energy should **assess and report on the existing barriers to and potential for developing renewable energy communities**. **Target implementation date: July 2027**	Italy	**Accepted**
	Romania	**Accepted**
Recommendation 5(b) **Promote the role of citizens and vulnerable households** The Polish Ministry of Climate and Environment, the Italian Ministry for Environment and Energy Security, and the Romanian Ministry of Energy should design provisions to **promote the role of citizens** in energy communities. **Target implementation date: December 2026**	Poland	**Accepted**
	Italy	**Accepted**
	Romania	**Accepted**
Recommendation 6(b) **Support energy storage** The Dutch Ministry of Climate and Green Growth and the Polish Ministry of Climate and Environment should **provide incentives for energy communities to develop energy storage** (alone or in combination with renewable energy generation) or other **flexibility services** in order to help to reduce grid congestion. **Target implementation date: July 2027**	Netherlands	**Accepted**
	Poland	**Accepted**

Abbreviations

Abbreviation	Definition/Explanation
DG CLIMA	Directorate-General for Climate Action (European Commission)
DG ENER	Directorate-General for Energy (European Commission)
DSO	Distribution system operator
EESC	European Economic and Social Committee
Eurostat	Statistical Office of the European Union
HIER	Dutch foundation supporting energy cooperatives
IMED	Internal Market for Electricity Directive
kW/kWh/kWp/MW/MWh/MWp/GW/TWh	Various power and energy units: kilowatt, kilowatt-hour, kilowatt peak, megawatt, megawatt-hour, megawatt-peak, gigawatt, terawatt-hour
NECP	National Energy and Climate Plan
NRA	National Regulatory Authority
RED II	Renewable Energy Directive II
RRF	Recovery and Resilience Facility
SMART	Specific, measurable, achievable, relevant and time-bound

Glossary

Term	Definition/Explanation
Demand response	Adjusting electricity consumption by end-users (e.g. by storing electricity or delaying consumption) in response to market signals.
Distribution system operator	Body responsible for operating, developing and maintaining the power distribution system in a given area.
Energy poverty	Situation where a home lacks access to essential energy services that are necessary for a decent standard of living and health, due to insufficient income, high energy costs and/or poor energy efficiency.
Energy sharing	Allocation of electricity generated within an energy community among its members.
European Economic and Social Committee	EU advisory body which acts as a forum for civil society organisations.
European Regional Development Fund	EU fund that strengthens economic and social cohesion in the EU by financing investments to reduce imbalances between regions.
Feed-in premium	Policy instrument paying a premium on top of the market price to producers of electricity.
Flexibility services	Measures to help avoid congestion in an electricity system by maintaining a balance between supply and demand.
Grid congestion	Situation where there is insufficient capacity to transfer all available power from one point on the grid to another.
Impact assessment	Analysis of the likely (ex ante) or actual (ex post) effects of a policy initiative or other course of action.
Infringement procedure	Procedure whereby the Commission takes action, in various stages, against an EU member state that fails to meet its obligations under EU law.
Letter of formal notice	Written communication from the Commission to an EU member state as the first stage of an infringement procedure.
LIFE	Financial instrument supporting implementation of the EU's environmental and climate policy through co-financing of projects in member states.
National energy and climate plan	Ten-year document outlining a member state's policies and measures to meet the EU's climate objectives.
National regulatory authority	In the context of this report, an independent public body that oversees a member state's electricity market, ensures the efficient functioning of its electricity system, protects consumer interests and prevents discrimination, and monitors compliance with EU energy rules.
One-stop-shop	In the context of this report, a single point of contact for energy communities to obtain advice and deal with administrative matters.

Payback period	Time needed for an investment to repay its initial cost by generating savings or revenue.
Prosumer	Energy consumer which also produces its own energy.
Reasoned opinion	Formal request to a member state to comply with EU law, sent by the Commission as the second part of an infringement procedure when that country remains in breach of its obligations despite having received a letter of formal notice.
Recovery and Resilience Facility	The EU's financial support mechanism to mitigate the economic and social impact of the COVID-19 pandemic and stimulate recovery, and meet the challenges of a greener and more digital future.
Transposition	Incorporation of the provisions of an EU directive into national law.
Transposition check	Assessment of the compatibility of national implementing measures with a directive's provisions.

Replies of the Commission

https://www.eca.europa.eu/en/publications/SR-2026-10

Timeline

https://www.eca.europa.eu/en/publications/SR-2026-10

Audit team

The ECA's special reports set out the results of its audits of EU policies and programmes, or of management-related topics from specific budgetary areas. The ECA selects and designs these audit tasks to be of maximum impact by considering the risks to performance or compliance, the level of income or spending involved, forthcoming developments and political and public interest.

This performance audit was carried out by Audit Chamber I – Sustainable use of natural resources, headed by ECA Member Joëlle Elvinger. The audit was led by ECA Member João Leão, supported by Paula Betencourt, Head of Private Office and Sofia Batalha, Private Office Attaché; Florence Fornaroli, Principal Manager; Olivier Prigent, Head of Task; Jaroslaw Smigiel, Michał Szwed, Ana Popescu, Bob De Blick, Olivia Saraco and Anna Kozlova, Auditors. Ingrid Van Gent, Paola Magnanelli, Simona Marincean and Mark Smith provided linguistic support. Alexandra Damir-Binzaru provided graphical support.

From left to right: Paula Betencourt, Olivia Saraco, João Leão, Michał Szwed, Florence Fornaroli, Anna Kozlova, Olivier Prigent.

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Citizens are projected to generate half of the renewable energy necessary to achieve the EU's goal of climate neutrality. Energy communities are legal entities that empower citizens, small businesses and local authorities to produce, manage, share and consume their own energy. Communities can contribute to the energy transition, and to increasing affordability and citizen involvement.

The EU has only reached 27 % of its objective of having at least one energy community per municipality with more than 10 000 inhabitants by 2025. This objective lacks relevance, support and monitoring. EU definitions remain unclear about the participation of apartment owners' associations. Moreover, governments have not created the conditions needed to support energy communities, such as incentives for electricity storage to ease grid connections. Our recommendations address these shortcomings.

ECA special report pursuant to Article 287(4), second subparagraph, TFEU.

EUROPEAN COURT OF AUDITORS

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