General information	State Romania	1
	Status EU-Membership	Member state since 1 January 2007 ¹
		Participant of Energy Community since 1 January 2007 ² .
ě	Population	19 051 562 (2023) ³
U	Land area (km²)	234,270 km² (2022) ⁴
	Urban population (%)	52.5 % (2023) ⁵
u.	GDP (current US\$ billion)	300.3 US\$ billion (2023) ⁶
	GDP per capita (US\$)	15,076.5 US\$ (provisional, 2023) ⁷
	Annual net earnings (Single	5,829.89 (2023) ⁸
2	person without children earni	ng
ic s	100% of average earning (EUR	0)
5	Median hourly earnings (EURC	Males: 3.79 (2018)
Socio-economic situation		Females: 3.68 (2018) ⁹
	World Bank economic	High-income country ¹⁰
<u> </u>	classification (2021)	
6	Unemployment	4.8 % (2020) ¹¹ 5,6 % (2023) ¹²
	(% of total labor force)	

Current energy sources

In 2019, Romania's total energy demand was 47 % lower than in 1990. Key changes include:

- Coal and natural gas demand: Both decreased by 68 %.
- Nuclear power: It was introduced and accounted for 9 % of the total energy supply in 2019.
- Renewable energy sources:
 - Renewables made up 18 % of the total supply, compared to just 3 % in 1990 (biomass increased 573 %).

The decline in Romania's industrial sector significantly impacted energy consumption:

- Industrial energy demand: Dropped by 74 %.
 - Natural gas consumption in industry: Fell by 87% from 1990 to 2019.
- Power sector gas demand: Decreased by 60 %.
- Oil use: Nearly phased out by 2019, down from 18% of the energy supply in 1990.¹³

Romania's primary electricity generation facilities include:

- The state-owned Cernavodă Nuclear Power Plant
- 208 hydropower stations
- 6 coal-fired plants
- Wind and solar farms

As of August 2023, the country's electricity production capacities were distributed as follows:

Country Profile Romania State: June 2024

Hydropower: 35.1 %

Coal: 18.1 %Wind: 15.9 %

Hydrocarbons: 15.1 %

Nuclear: 7.5 %Solar: 7.5 %Biomass: 0.8 %

Romania's energy sector is characterized by a mix of sources, which include traditional and renewable forms of energy:

Natural Gas: Romania, the second-largest natural gas producer in the EU, is tapping into large Black Sea reserves via the Neptun Deep project, which is set to provide gas by 2027. The country produced 106,380 GWh of primary energy in the first half of 2023.

Nuclear Energy: The Cernavodă Nuclear Power Plant contributes significantly, with two operational reactors and two more planned. In 2022, nuclear power provided a substantial portion of Romania's 53.5 TWh energy production.

Coal: The coal sector is shrinking due to the National Plans, which seek to phase out coal by 2032. Coal production is expected to drop by 12.5 % in 2023.

Renewable Energy: Romania aims to add 7 GW (wind and solar) of new renewable capacity by 2030. Wind and solar currently supply over 12 % of the energy mix, while hydropower exceeds 27 %.¹⁴

Prosumerism in Romania:

As of November 2023:

o Prosumers: Over 100,000 installations.

o Total capacity: Exceeds 1,400 MW.

Capacity increase: 308 % surge.

The prosumer capacity rivals that of the Cernavodă nuclear power plant of 1,300 MW.¹⁵

In Romania, the electricity transmission system and interconnection with neighboring countries are managed and operated by Transelectrica SA, the state-controlled Romanian Transmission System Operator (TSO). Access to the public power grid is regulated by The National Regulatory Authority for Energy (ANRE). Their responsibilities include market operation, grid, and infrastructure development, and ensuring the security of the national energy transmission system.¹⁶

Climate protection targets

Romania's draft updated National Energy and Climate Plan (NECP) for 2021-2030 outlines ambitious goals for greenhouse gas (GHG) emissions reduction:

- GHG Emissions Reduction Targets:
 - o 2019 achievement: 79 % reduction.
 - 2025 prediction: Further reduction to 94%.
 - 2030 target: 78 % reduction compared to 1990 levels.

Country Profile Romania State: June 2024

Long-term Goal: Almost zero emissions by 2050.

Sector-Specific Emissions Reduction Goals by 2030:

Energy Sector:

- Target: 87 % emissions decrease.
- Strategies: Closure of coal-fired plants, expansion into renewables (wind, solar).

Transportation Sector:

- Target: Limit GHG emissions increase to 41 %.
- Strategies: Increased use of hybrid and electric vehicles.

Building Sector:

- Target: 2 % reduction in emissions.
- Strategies: Enhanced building efficiency, use of heat pumps, solar thermal systems.

Industrial Sector:

- Target: 77 % decrease in emissions.
- Strategies: Transition from fossil fuels to electricity and renewable sources, technology efficiency improvements.

Agricultural Sector:

- Target: 47 % reduction in emissions.
- Strategies: Improved livestock diet, better feed management.

Land Use and Forestry Sector:

- Target: 17 % increase in GHG removal capabilities.
- Focus: Improved forest fire management.

Waste Management Sector:

- Target: 30 % reduction in emissions.
- Strategies: Enhanced waste reduction, reuse, recycling practices.¹⁷

Renewable energy targets

Romania is setting ambitious goals to green its energy consumption:

- 2030 Targets:
 - At least 34 % of energy from renewable sources (increased to 36.2 % in 2023 new target).
- 2025 Milestone (on track):

 32 % renewable energy, driven by wind and solar power and heat pumps.

Sector-Specific Goals:

- Transport Sector:
 - Nearly 30 % renewable energy by 2030, largely driven by a shift towards electric vehicles (EVs).
- Electricity Sector:
 - Over 55.8 % of energy use from renewables by 2030, primarily through wind and solar projects.

However, the journey in the heating and cooling sector will be more gradual, with only a slight increase in renewable energy use anticipated. This is due to a move away from biomass, which, despite being renewable, has been problematic because of its impact on both land use and air quality. Instead, cleaner technologies like heat pumps are becoming the preferred option, aligning with both environmental needs and modern energy practices.¹⁸

Renewable energy potential

Currently, Romania is seeking to derive more of its energy needs from renewable sources. Romania is seen as a fast-growing market for wind energy in the Southeast European region, with installed wind generation capacity increasing at pace. In the period 2009-2014, Romania attracted investments of over EUR 4.5 billion in the wind energy sector.

In 2021, the country had about 3 GW, which covered about 10% of electricity consumption.

Wind projects with an installed capacity of 307 MW had grid connection contracts with Romania's transmission system operator Transelectrica. In addition to the 307 MW with connection contracts, another 460 MW obtained technical approvals for connection.¹⁹

Renewable Energy Sources in Romania have significant potential for growth over the coming decade, driven by several key factors:

- Geographical and natural resources: Romania is rich with diverse natural resources conducive to renewable energy production. It has considerable potential for wind energy, particularly in the Dobrogea region measured at 10 m height, which is among the best in Europe for wind power.²⁰
- The offshore wind energy in the Black Sea has also great potentials (76 GW wind installed capacity) with no operating offshore wind energy currently.²¹
- The country also has substantial solar energy potential, particularly in the southern regions, which receive high levels of sunlight.²² Several large projects are underway, including the construction of one of Europe's largest solar parks in Arad County, which will have a capacity of 1,044 MW with an estimated cost of €800 million. Another massive park in Dolj County is expected to reach up to 1,500 MW.²³

 Hydroelectric power is already well-developed as the largest source of renewables (33.9 % of the total energy mix in 2020), and there are opportunities for further expansion, especially in small and medium-sized hydroelectric projects.²⁴

Government initiatives and EU influence: Romania, as an EU member state, is subject to the ambitious targets for renewable energy and greenhouse gas emissions reductions. The European Green Deal and other policies encourage investment in renewables. The Romanian government has been supportive through various incentives, including feed-in tariffs and green certificates, although the regulatory framework has seen changes that have sometimes been perceived as unstable.

Economic and investment climate: The economic environment in Romania is increasingly conducive to investment in renewable energies. There is growing interest from both domestic and international investors. The decreasing cost of technologies like solar PV and wind turbines also makes investments more attractive and feasible.²⁵

Energy security and independence: Like many other countries, Romania views renewable energy as a means to enhance its energy security and reduce its dependence on imported fossil fuels, especially from Russia. This strategic consideration is likely to drive further investments in RES.²⁶

Public support and awareness: There is growing public awareness and support for renewable energy in Romania, which is crucial for the expansion of RES. This societal shift is likely to influence policy and market dynamics favorably.²⁷

Romania is planning to install an additional 1.4 GW of wind farms over the next five years, marking a second significant wave of investment estimated at around €2 billion. Currently, the country has about 3 GW of wind power, which accounts for approximately 10% of its electricity consumption. In the solar energy sector, Romania boasts about 1.52 GW of installed capacity as of August 2023 and aims to become an important player for wind and solar power within the EU.

Moreover, based on studies done, biomass has the potential to contribute 65% to Romania's green energy production. Romania's biomass energy potential can be distributed across eight distinct regions: the Danube Delta (a Biosphere Reserve), Dobrogea, Moldavia, the Carpathian Mountains (including the Eastern, Southern, and Western-Apuseni ranges), the Transylvanian Plateau, the Western Plain, and the Carpathian Hills. The potential for biomass RES energy is supplemented by wind (17%), solar (12%), micro-hydropower (4%), and geothermal (2%).²⁸

Given these factors, the next decade could see substantial growth in RES in Romania, with solar and wind energy leading the renewable expansion.

Renewable energy support regime

In Romania, RES projects are eligible to receive national and EU funds under various schemes based on

- the Recovery and Resilience Plan.
- The Romanian government is working on establishing a Contracts for Difference (CfD) scheme. Although still in development, this scheme is expected to provide a more structured financial support mechanism for renewable energy projects and is anticipated to be operational within the year.
- The development of these frameworks is aimed at boosting the renewable sector in line with Romania's commitment to increasing its share of renewable energy in the energy mix.
- Power Purchase Agreements (PPAs) have been allowed again in the wholesale market since 2021 after being banned in 2012.²⁹

Under the Modernisation Fund, a European Union program supporting 13 member States to meet energy targets by helping them modernize their energy system, the Ministry of Economy, Entrepreneurship, and Tourism started injecting 457.7 million Euro for clean energy sources as well as upgrading grid capacities countrywide. This fund will focus on:

 the procurement of new renewable sources cheaper when you consider the specific rebates attached to certain solar and wind projects: they range between €0.425 million and €1.3 million per MW as installed costs, respectively.

Additionally, RES is supported through:

- Green certificates. The National Regulatory Authority for Energy (ANRE) has established a mandatory annual quota for the purchase of these certificates and has formulated new regulations to streamline the marketing of electricity from renewable plants with capacities up to 400 KW per place of consumption."³⁰
- The national grid operator (Romanian TSO) is obliged to connect renewable energy plants to their grids without discriminating against certain plant operators. They are also obliged to transmit electricity from renewable sources as a priority. In general, the TSO is obliged to develop its grids at the request of a plant operator, if the connection of a plant to the grid requires the grid to be developed.
- There are policies in place to promote training programs for RES installers.³¹
- As of April-May 2023, Transelectrica reported over 49 GW of wind and solar projects in development. These projects, including those by prosumers (energy communities), range from a few megawatts to around one thousand megawatts in planned installed capacity. Romania has eight Distribution System Operators (DSOs), with one

- operator holding exclusive rights to operate the distribution grid in one of the eight areas. Therefore, distribution tariffs can differ.
- Securing land for permanent structures such as RES projects involves obtaining ownership or superficies rights. Superficies rights, which allow the use of the land and ownership of structures on it, are preferred due to lower costs, transfer restrictions on agricultural land, and the option to terminate the project if it becomes non-viable.
- The permitting process for renewable power projects involves obtaining various permits and authorizations, often including an environmental impact assessment. Typically, a project application is submitted to the relevant environmental authority, which then determines if an environmental impact assessment is required.
- Once the project is up and running, the developer usually partners with different service providers for operation and maintenance (O&M) tasks.
- Electricity storage isn't mandatory for projects in Romania, but new regulations are emerging. ANRE recently advised renewable energy investors to include storage for at least 20% of their generation capacity.³² In late spring 2024, the Romanian minister of energy announced that a 0.5-billion-euro battery energy storage systems (BESS) tender will be held in autumn of the same year as part of the Modernisation Fund.³³

Relevant laws, policies, and plans

- (INECP) Integrated National Energy and Climate Plan- 2021-2030 Update, November 2023³⁴
- Law no. 237/2023 Hydrogen, from June 2023
- GOVERNMENT EMERGENCY ORDINANCE No. 108/2022 on the decarbonization of the energy sector, from June 30, 2022
- **GOVERNMENT EMERGENCY ORDINANCE No. 186/2022** on implementing measures of the Regulation (EU) 2022/1854 regarding an emergency intervention to address the problem of high energy prices from December 28, 2022
- GOVERNMENT EMERGENCY ORDINANCE GEO 163/2022 for supplementing the legal framework on the promotion of the use of energy from renewable sources and for amending and supplementing certain regulatory acts, from 6 December 2022.
- GOVERNMENT EMERGENCY ORDINANCE no. 143/2021 for the amendment and completion of the Electricity and Natural Gas Law no. 123/2012, as well as for the modification of some normative acts, from December 2021.³⁵
- Law No. 226/2021 on establishing social protection measures for vulnerable energy consumers from September 16, 2021³⁶
- **Law No. 220/2008** for establishing the system to promote the production of energy from renewable energy sources³⁷
- Law no. 184/2018: The Law updates renewable energy Law No. 220/2008 by introducing the term "prosumer" and setting legal provisions for acquiring green certificates.³⁸
- **Law No. 123/2012** of electricity and natural gas governs the electricity and natural gas markets in Romania, ensuring regulatory oversight, market transparency, and consumer protection in the energy sector (Energy Law)³⁹
- Romania's Energy Strategy. The Romanian Government is soon to approve the country's 2019 2030 (with a 2050 perspective) Energy Strategy, which will then be adopted by law by the Romanian Parliament. Renewable energy sits at the core of the new Energy Strategy, among the six priority investments deemed critical for attaining the fundamental objectives of the Strategy. 40
- **The Offshore Wind Law**. Romania's newly passed offshore wind energy law in early 2024 sets the stage for the country's first wind installations by 2032. This legislation requires the government to finalize regulations and start concession tenders by mid-2025. It aims to bolster Romania's energy independence and foster investments in renewable energy, particularly in producing green hydrogen and ammonia, capitalizing on a potential 76 GW of offshore wind capacity. The law is currently awaiting the President's signature to come into effect."⁴¹

Regulatory framework for citizen energy

Romania's legislation for Renewable Energy Communities (RECs) was introduced through emergency ordinance 163/2022 on December 6, 2022, while Citizen Energy Communities (CECs) were established via ordinance 143/2021, amending the Electricity and Natural Gas Law no. 123/2012. The National Regulatory Authority (ANRE) is tasked with developing frameworks for these energy communities.

- Law No. 184/2018 introduces the term prosumers in Romania's energy system. This law provided a clearer definition of "prosumer," simplified authorization procedures, introduced tax reliefs, and offered promotion options for RES production (Romanian government 2018). Law No. 184/2018 clarifies the role of prosumers, defining them as consumers who also generate electricity but whose main business isn't electricity production. Prosumers can use, store, and sell

renewable energy produced at their homes, apartment buildings, or business locations. They benefit from exemptions on green certificate purchases and related taxes. Initially capped at 27 kW, the allowable capacity for renewable energy units was increased to 100 kW per site in 2020. Prosumers can sell their surplus electricity to suppliers with whom they have contracts (Romanian government 2018, Romanian government 2020). Law No. 184/2018 introduced also the net metering - a billing mechanism that allows prosumers—individuals or entities that both produce and consume electricity—to offset their energy consumption with the electricity they generate from renewable sources. 42

- GOVERNMENT EMERGENCY ORDINANCE No. 108/2022. The legislation promotes among others, the participation of the citizens in energy production. It supports Energy Communities where it includes different measures (e.g. legal and administrative support, financial mechanisms, capacity building, and awarenessraising programs) to facilitate the creation and operation of energy communities, enabling groups of citizens, businesses, and local authorities to collaborate on energy projects.
- GOVERNMENT EMERGENCY ORDINANCE GEO 163/2022. The legislation defines RECs as legal entities that must meet several conditions, including open and voluntary participation, autonomy, and effective control by shareholders or members located near renewable energy projects. Shareholders or members can be natural persons, SMEs, or local authorities. The ordinance specifies the rights of end-customers to participate in RECs, the right of RECs to produce, consume, store, and sell energy from renewable sources, and access to all appropriate energy markets. It also outlines the obligations of RECs to contribute fairly to the total costs of the energy system and ensures non-discriminatory treatment in their activities.⁴³
- GOVERNMENT EMERGENCY ORDINANCE no. 143/2021 for the amendment and completion of the Electricity and Natural Gas Law no. 123/2012, as well as for the modification of some normative acts, from December 2021. It introduces provisions for Citizen Energy Communities (CECs) in Electricity and Natural Gas Law no. 123/2012. CECs are defined as legal entities that must meet several conditions, including voluntary and open participation, effective control by members or shareholders, and the main objective of providing environmental, economic, or social benefits rather than generating financial profits. CECs can engage in various energy sector activities, including production, distribution, supply, consumption, aggregation, energy storage, energy efficiency services, and electric vehicle charging services. The ordinance specifies that CECs have the right to access all electricity markets, are treated in a non-discriminatory manner, and have the financial responsibility for imbalances they cause in the energy system. It also allows CECs to manage distribution networks autonomously, subject to relevant national legislation and ANRE regulations.⁴⁴

Evaluation of the legal framework

- Romania's legal framework for renewable energy deployment specifically for energy communities has some helpful elements but also significant obstacles that make it hard to fully achieve renewable energy and climate goals.
- As of March 2024, the delay in adopting Romania's NECP raises concerns about the country's ability to meet its renewable energy and broader climate targets. The NCEP is unlikely to be approved by the government by the expected deadline of 30 June of the same year, as mandated by the Energy Union Governance Regulation. This delay is partly due to the challenges in aligning the plan with the European Commission's recommendations, which have criticized the plan for not being ambitious enough Romanian officials are looking at ways to revise the plan based on recommendations from the Commission. This situation underscores the challenges Romania faces in meeting its climate protection commitments, potentially affecting the progress outlined in the previously mentioned sector-specific GHG reduction goals.
- The European Commission has expressed concerns over the lack of detailed measures on renewable energy and insufficient plans for the climate and energy transition, as well as inadequate funding sources. Despite setting a target of 36.2% renewable energy by 2030 in the draft NCEP, this falls short of the Commission's expectation of 41%. Even the 36.2% target is viewed as overly ambitious by some Romanian state authorities. The ongoing revisions to the plan are based on feedback from the Commission, aiming to enhance the country's commitment to decarbonization using all available resources, including gas.⁴⁵
- With regard to legislation directly related to energy communities in Romania, the key points are: The legal definitions of Renewable Energy Communities (RECs) and Citizen Energy Communities (CECs) are provided by different ordinances. RECs are defined by emergency ordinance 163/2022, and CECs by ordinance 143/2021. ANRE, the national energy regulator, is expected to develop detailed regulations and implement them at the national level. Currently, Romania relies on the EU's definition of CECs, which lacks legal clarity and needs further precision for stakeholders to use effectively. ANRE doesn't have specific duties to ensure compliance with these definitions, and it's crucial to provide the necessary resources to manage these responsibilities effectively and prevent corporate influence. Both RECs and CECs are granted rights such as the ability to produce, consume, store, and sell renewable energy. They must also follow certain obligations, such as ensuring non-discriminatory practices and being financially responsible for energy imbalances.
- The national legislation requires the responsible Ministry to evaluate existing obstacles and the development potential of renewable energy communities. The legislation mandates the creation of a favorable framework for RECs, ensuring the removal of unjustified regulatory barriers, providing non-discriminatory treatment, and facilitating access to finance and information. The legislation emphasizes the need to consider the specificities of RECs when designing support schemes to allow them to compete on an equal footing with other market participants. Additional provisions include guidelines on the calculation of energy consumption from renewable sources and simplified authorization procedures for decentralized installations.

Overall, while the national legislation establishes an enabling framework for energy communities, detailed implementation and support measures are still required to fully realize their potential. Until clearer guidelines and procedures are established, setting up an energy community in Romania remains uncertain and legally unclear. 46 47

As of May 2024, Romania developed legislation to support energy communities, allowing citizens to access lower-cost renewable electricity. The head of the Ministery of Energy announced a working group to create this framework, aiming to reduce reliance on traditional energy sources and combat energy poverty.

The ministry highlights Romania's significant solar potential, particularly in Bucharest. However, balancing supply with demand and ensuring network stability are challenges. The Association of Prosumers and Energy Communities in Romania (APCE) calls for clear government policies on prosumers and investment in energy storage. The need for Romania to commit to green energy and meet EU decarbonization targets to maintain access to European funds is stressed too.⁴⁸

Citizen energy projects

Cooperativa de Energie – first community energy in Romania

Cooperativa de Energie is Romania's pioneering energy community that provides green energy certified by origin. Since its inception in 2018 with 15 members, it has expanded to over 970 members across the country.

Overview:

- The Cooperative aims to drive Romania's shift to a fully renewable energy market, enabling citizens to engage as both consumers and investors in sustainable energy.
- In May 2021, the Cooperative acquired an existing energy company, marking its entry as Romania's first fully green energy producer and supplier. An 80-day campaign saw more than 100 members invest a total of 400,000 Euros, facilitating this market entry.
- Future plans include launching investment programs in renewable energy projects, particularly photovoltaic, utilizing member contributions to create or acquire new production capacities. Additionally, a Collective Purchase system will allow members to purchase products such as solar panels and electric vehicles at reduced prices.
- Supported by the European Commission, the Cooperative is a leading example of decentralized renewable energy and local economic development. It is part of REScoop, the European Federation of Renewable Energy Cooperatives, and operates a governance model where each member has one vote.

By producing green electricity and enabling member investments in solar and wind projects, the Cooperative demonstrates a successful citizen-led energy initiative, contributing to national and regional climate neutrality objectives.⁴⁹

Research and capacity building activities

Crearea unor condiții operaționale adecvate pentru energia regenerabilă în Regiunea Dunării (Creating appropriate operational conditions for renewable energy in the Danube Region) — NRGCOM Overview:

- The NRGCOM project aims to create an enabling environment in the Danube region, among other Romania, to support the development and expansion of renewable energy communities (RECs).
- Running from January 1, 2024, to June 30, 2026, with a budget of €175,987.72 funded by the Danube Transnational

- Programme 2021-2027, it seeks to improve energy efficiency, support decarbonization, and enhance energy security.
- NRGCOM aims to foster an environment conducive to the growth of RECs. The project involves 13 main partners and 14 strategic partners from 12 countries, including governmental bodies, energy agencies, academic institutions, and renewable energy service providers.
- Key activities include reviewing legal frameworks, analyzing the operations of existing RECs, and gathering best practices to develop policy recommendations. These efforts will lead to a comprehensive strategy for establishing RECs in the region.

The project will produce guidelines to facilitate REC creation, management, and operation, considering legal, social, infrastructural, economic, and sustainability factors.⁵⁰

MENERGERS – Energy Managers' Services in Municipalities Overview:

- The MENERGERS project aims to improve the skills of municipal energy managers in Bulgaria and Romania by sharing effective EU practices. Running from November 2022 to April 2025 with a budget of €469,794.74, it is led by the National Trust EcoFund (NTEF) and various partners.
- Local authorities are crucial for the EU's climate-neutrality goal by 2050, but Bulgaria and Romania lack sufficient training in energy management. MENERGERS addresses this gap by researching best practices, legislation, and training programs. It promotes knowledge exchange through workshops and consultations with national authorities and environmental experts.
- The project will develop a comprehensive training program for Bulgarian energy managers and establish renewable energy criteria in Romania. It also aims to update policy frameworks and increase awareness of energy-saving measures through reports, training, and study visits.⁵¹

The NECPlatform project

Overview:

- It aims to enhance multilevel governance in national energy and climate policies across Europe, focusing on the involvement of local and regional authorities. Running in Bulgaria, Croatia, France, Italy, Portugal, and Romania, the project establishes Climate and Energy Dialogue (CED) Platforms to integrate local perspectives into national policies.
- These platforms will hold roundtable discussions with representatives from various sectors to collaboratively design, implement, and monitor energy and climate policies. The goal is to improve the quality and coherence of National Energy and Climate Plans (NECPs) by ensuring they reflect local capacities and promote equitable ecological transitions.
- Recommendations to the European Commission include emphasizing the importance of Article 11, enhancing dialogue quality, and encouraging long-term advisory groups for future

energy and climate strategies. Draft NECPs were due in June 2023, with final versions by June 2024.⁵²

Sustainable Building Renovation – Forming the Future (SURF project) Overview:

- It is an initiative designed to enable municipal leaders to champion and execute sustainable building renovation efforts.
- This project, which operates in Germany, Hungary, and Romania from December 2022 to November 2024, has a budget of €485,720.04. It targets local governments and the private sector, with Deutsche Umwelthilfe (DUH) e.V. leading the implementation in collaboration with Energiaklub and Ae3R Ploiesti-Prahova.
- The SURF project will encourage extensive, sustainable renovations at the municipal level. It focuses on those managing municipal buildings, who are pivotal in initiating a grassroots shift in energy renovation practices. The project organizes transnational workshops to facilitate the exchange of successful practices and concepts among leading municipalities in Germany, Hungary, and Romania.
- SURF also provides training on circular building practices, guidelines for sustainable public procurement, a renovation sustainability checklist, and various online resources.
- Furthermore, it connects municipalities with architects, industry professionals, homeowners' associations, and housing companies through informal "renovation lunches" and a policy conference, creating a network dedicated to sustainable renovation efforts aimed at achieving a climate-neutral building stock.⁵³

Interreg Project COALESCCE

Overview:

- This is a community-owned and led energy project for security climate change and employment. The project operated from January 2017 to June 2021. It advocated for integrated regional low-carbon strategies that prioritize community energy investments.
- The project sought to increase investment in local community energy investment via support from the Structural Fund and ETC (European Territorial Cooperation) programs. Its objectives included reducing carbon emissions, enhancing energy security, addressing fuel poverty, and promoting 'Green Growth'.⁵⁴

Relevant actors and stakeholders

NGOs Ae3R Ploiesti-Prahova - Energy Efficiency and Renewable Energy Agency Ploiesti-Prahova

 Also called Ae3R Ploiesti-Prahova, is a Romanian non-profit agency that promotes energy efficiency and the use of renewable energy sources, with a special focus on the possibilities offered by new technologies.

The NGO is involved in Interreg Project COALESCCE and the currently running SURF project.⁵⁵

Country Profile Romania State: June 2024

OER – Orașe Energie Romania

- Is a non-governmental organization that unites local authorities in Romania to focus on energy efficiency, renewable energy, and sustainable urban mobility.
- Founded in 1995 through the PHARE Program and supported by Energy Cities, OER aims to lead the energy transition and achieve climate neutrality.
- Since 2009, it has supported Romanian cities in the Covenant of Mayors initiative.
- OER's main goals are to empower local administrations to create and implement effective energy policies, facilitate dialogue between local and national authorities, and guide communities towards low emissions.
 The NGO is involved in The NECPlatform, MENERGERS, and NRGCOM projects.⁵⁶

Governmental	Ministry of Energy ⁵⁷	
bodies	Ministry of Environment, Waters and Forests ⁵⁸	
	National Energy Regulatory Authority (ANRE) ⁵⁹	
	Ministry of Regional Development and Public Administration ⁶⁰	
Local	Bistrita Municipality ⁶¹	
governments	Bucharest Municipality ⁶²	
	Brasov Municipality ⁶³	
	Timișoara Municipality ⁶⁴	
International/	- Energi Cities ⁶⁵	
supra-national	- The European Climate Initiative - EUKI ⁶⁶	
actors		
izing evaluation		

Fields of Action

Measures to advance community energy and energy transition in Romania

Policy-relevant measures:

- Strengthening legal frameworks: Ensure clarity and support from ANRE while implementing and improving rules to support Citizen Energy Communities (CECs) and Renewable Energy Communities (RECs) and create comprehensive national regulations.
- Policy alignment: To meet EU climate and renewable energy targets, make sure the Integrated National Energy and Climate Plan (INECP) is adopted and implemented on schedule. Incorporate specific policies and measures in the final NECP to support energy communities. Additionally, establish clear targets and objectives, and prioritize meaningful public engagement in the NECP update.

Pilot projects and concrete initiatives:

- Solar and wind projects: Create new wind and solar pilot plants, especially in areas with a lot of promise, like the southern and Dobrogea regions for solar energy. Additionally, there is a lot of opportunity for further development of biomass energy.
- Prosumers programs: Expand support for prosumers by increasing the capacity limits for renewable energy units and promoting net metering. Facilitate the role of prosumers.

Information and awareness raising:

- Public campaigns: To increase understanding and awareness of the advantages and prospects of community energy initiatives, there ought to be national campaigns.
- Educational programs: Provide informational materials and workshops on energy efficiency and renewable energy to the public, businesses, and local government agencies. To increase the number of skilled personnel, encourage and give RES installers additional training possibilities; this is clearly supported by current national policies.

Feasibility studies:

- Assess the potential of renewable energy: Conduct feasibility studies to identify the most fitting locations for renewable energy projects.
- Economic viability: Evaluate the economic viability of various RES, focusing on long-term benefits and cost reductions.

Capacity building:

- Training initiatives: To improve municipal energy managers' and local authorities' abilities to oversee and carry out community energy projects, training initiatives should be established.
- Workshops and seminars: Organise workshops and seminars to share best practices and innovations in community energy.

Networking and collaboration:

- Climate and energy dialogue: Establish ongoing, multilevel debate forums with participants from different industries to guarantee the execution of policies that make sense.
- International and regional cooperation: Encourage the sharing of resources and information between academic institutions, NGOs, local governments, and partners in the commercial sector.

Research initiatives:

 Policy recommendations: To promote community energy programs at the national and regional levels, develop thorough policy recommendations based on research and best practices.

These measures can further support the deployment of community energy initiatives in Romania, contributing to its renewable energy targets and climate neutrality goals.

Authors of the country profile: Roland Lleshi, Saeed Najd Ataei Sarkarabad, Tamara Mitrofanenko, Prof. Dr. Gesa Geißler

¹ https://european-union.europa.eu/principles-countries-history/country-profiles/romania_en

² https://www.energy-community.org/aboutus/whoweare.html

³ https://european-union.europa.eu/principles-countries-history/eu-countries/romania_en

⁴ https://european-union.europa.eu/principles-countries-history/key-facts-and-figures/life-eu_en

⁵ https://www.worldometers.info/world-population/romania-population/

⁶ https://www.worldbank.org/en/country/romania/overview

⁷ https://www.worldbank.org/en/country/romania/overview

⁸ https://ec.europa.eu/eurostat/databrowser/view/earn_nt_net/default/table?lang=en

 $^{^9\} https://ec.europa.eu/eurostat/databrowser/view/earn_ses_pub2s/default/table?lang=en$

¹⁰ https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups

¹¹ https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups

- 12 https://data.worldbank.org/indicator/SL.UEM.TOTL.ZS
- 13 https://ca1-clm.edcdn.com/assets/romania.pdf
- ¹⁴ https://www.trade.gov/country-commercial-guides/romania-energy# ftnref1
- $^{15}\ https://balkangreenenergynews.com/prosumers-in-romania-have-installed-capacity-larger-than-cernavoda-nuclear-power-plant/$
- ¹⁶ https://ceelegalmatters.com/renewable-energy-2023/renewable-energy-romania-2023
- ¹⁷ https://commission.europa.eu/document/download/c42fd541-c493-4479-8bdf-

b2ba6aad85b8 en?filename=ROMANIA%20-%20DRAFT%20UPDATED%20NECP%20201-2030.pdf

18 https://commission.europa.eu/document/download/c42fd541-c493-4479-8bdf-

b2ba6aad85b8_en?filename=ROMANIA%20-%20DRAFT%20UPDATED%20NECP%202021-2030.pdf

- ¹⁹ https://balkangreenenergynews.com/romania-has-1-4-gw-of-wind-farms-in-the-pipeline/
- ²⁰ https://www.proquest.com/openview/a1017c94a904929f10074779333622d3/1?cbl=1536338&pq-

- ²¹ https://www.mdpi.com/2077-1312/7/5/142
- ²² https://solargis.com/maps-and-gis-data/download/romania
- ²³ https://www.trade.gov/market-intelligence/romania-clean-energy
- ²⁴ https://www.researchandmarkets.com/reports/5175480/romania-renewable-energy-market-growth
- ²⁵ https://ceelegalmatters.com/renewable-energy-2023/renewable-energy-romania-2023
- ²⁶ https://www.euki.de/en/news/energy-security-romania/
- ²⁷ https://www.mdpi.com/1996-1073/14/18/5834
- ²⁸ https://www.trade.gov/country-commercial-guides/romania-energy
- ²⁹ https://ceelegalmatters.com/renewable-energy-2023/renewable-energy-romania-2023
- 30 https://www.trade.gov/country-commercial-guides/romania-energy
- 31 http://www.res-legal.eu/search-by-country/romania/
- 32 https://ceelegalmatters.com/renewable-energy-2023/renewable-energy-romania-2023
- 33 https://balkangreenenergynews.com/romania-starts-work-on-energy-communities-legislation/
- ³⁴ https://commission.europa.eu/publications/romania-draft-updated-necp-2021-2030 en
- 35 https://energy-communities-repository.ec.europa.eu/document/download/8934c196-2464-4ffd-a93b-

73d3e625dc72 en?filename=ECR MSfiche Romania final.pdf

- 36 https://commission.europa.eu/document/download/c42fd541-c493-4479-8bdf-
- b2ba6aad85b8 en?filename=ROMANIA%20-%20DRAFT%20UPDATED%20NECP%202021-2030.pdf
- ³⁷ https://www.ecolex.org/details/legislation/law-no-2202008-for-establishing-the-system-to-promote-the-production-of-energy-from-renewable-energy-sources-lex-faoc115082/
- 38 http://www.res-legal.eu/search-by-country/romania/sources/t/source/src/law-no-1842018/
- ³⁹ https://cms.law/en/int/expert-guides/cms-expert-guide-to-electricity/romania
- $^{\rm 40}$ https://www.schoenherr.eu/content/romania-is-getting-ready-to-ride-a-second-wave-of-renewable-energy-investments/
- ⁴¹ https://balkangreenenergynews.com/romania-adopts-offshore-wind-energy-law-to-get-first-megawatts-in-2032/
- $^{42}\ https://www.rescoop.eu/uploads/rescoop/downloads/Collective-self-consumption-and-energy-communities.-Trends-and-challenges-in-the-transposition-of-the-EU-framework.pdf$
- 43 https://rlw.juridice.ro/21482/recent-changes-to-the-legal-framework-for-promoting-the-use-of-energy-from-renewable-sources.html
- $^{44}\ https://energy-communities-repository.ec.europa.eu/system/files/2023-08/ECR_MS fiche_Romania_final.pdf$
- ⁴⁵ https://www.euractiv.com/section/politics/news/romania-delays-adoption-of-energy-and-climate-plan-casts-doubt-on-renewable-targets/
- ⁴⁶ https://energy-communities-repository.ec.europa.eu/system/files/2023-08/ECR_MSfiche_Romania_final.pdf
- ⁴⁷ https://www.rescoop.eu/policy/transposition-tracker/rec-cec-definitions/romania-rec-cec-definitions
- 48 https://balkangreenenergynews.com/romania-starts-work-on-energy-communities-legislation/
 49 https://www.interregeurope.eu/good-practices/the-first-energy-cooperative-in-romania
- 50 https://oer.ro/proiect/nrgcom/
- 51 https://www.euki.de/en/euki-projects/menergers-energy-managers-municipalities/
- 52 https://energy-cities.eu/project/life-necplatform/
- 53 https://www.euki.de/en/euki-projects/sustainable-building-renovation/
- 54 https://www.interregeurope.eu/coalescce/
- ⁵⁵ https://www.rescoop.eu/news-and-events/news/rescoop-eu-welcomes-two-new-members-ae3r-ploiesti-prahova-izgrei-bg
- 56 https://oer.ro/
- 57 https://energie.gov.ro/ministerul-energiei/
- 58 https://www.apepaduri.gov.ro/
- 59 https://arhiva.anre.ro/en/
- 60 www.mdrap.ro/en/
- 61 https://www.primariabistrita.ro/
- 62 https://www.pmb.ro/
- 63 https://www.brasovcity.ro/

⁶⁴ https://www.primariatm.ro/

⁶⁵ https://energy-cities.eu/members/?mode=map 66 https://www.euki.de/en/more-about-euki/