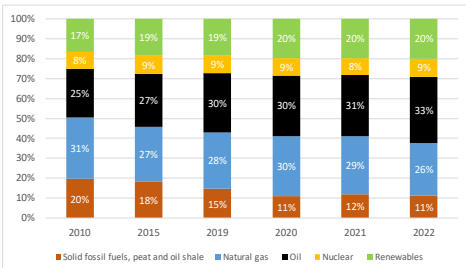




REPowerEU Two Years on_Romania

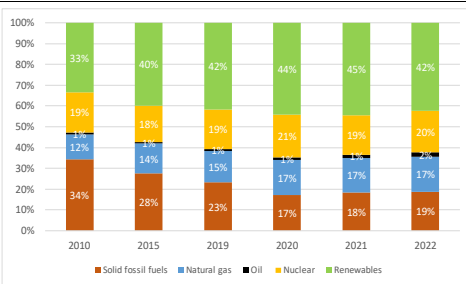
Key energy figures

Graph 1: Energy mix



Source: Eurostat

Graph 2: Electricity mix



Source: Eurostat

Save energy

1. KEY ENERGY SAVINGS MEASURES

Romania is implementing energy efficiency measures to contribute to energy security further, such as:

- **National Programme for thermal rehabilitation of blocks of flats**, including the Recovery and Resilience Plan that consists in deep energy renovation of at least 2.3 million m² of public buildings and of at

least 3.2 million m² residential multi-family buildings.

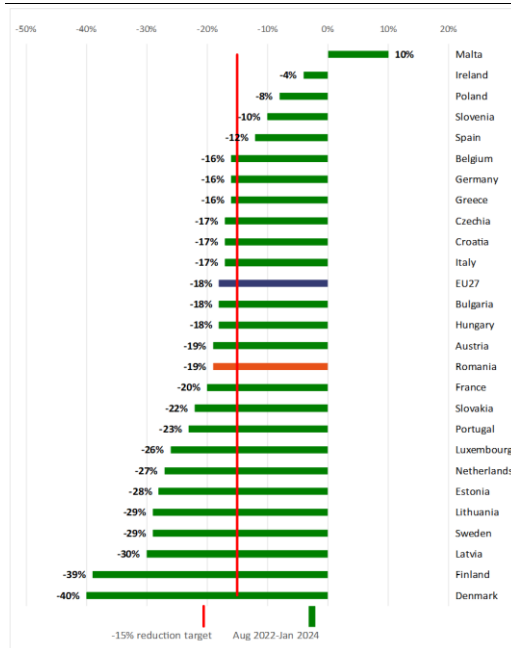
- With the support of Casa Verde (green house) Programme for **rooftop solar energy** and Casa Eficienta Energetic (Energy Efficient House) for **single family homes and public buildings**. at the end of 2023, the Romanian Energy regulator (ANRE) reported an almost 300% y-t-y increase of rooftop PV for residential houses and public buildings, reaching around 1400MW installed power on more than 110,000 buildings⁽¹⁾. It is estimated that the new programme to be launched towards summer 2024 will add another 1000 MW installed power by the end of current year.
- **Reform of district heating through development of flexible and highly efficient gas-fired electricity and heat cogeneration (CHP)**, with 300 MW electricity production capacity, and reform to increase decarbonisation of the heating and cooling sector.
- In the REPowerEU chapter, Romania envisaged new reforms and investments to support energy efficiency renovations and energy production from renewable sources for households. Notably, a network of one-stop-shops will be established at counties' level and new voucher schemes will be developed to support the deployment of rooftop PV and energy efficient renovation of households, with an accent on energy poor and vulnerable ones.

⁽¹⁾ [Alicuș \(ANRE\): Sunt puțin peste 110.000 de prosumatori cu putere instalată de peste 1.400 MW | AGERPRES - Actualizează lumea.](#)

2. GAS DEMAND REDUCTION

Romania has reduced its gas consumption by **19%** in the period **August 2022 – January 2024**, above the decrease achieved at EU level (18%) and the 15% voluntary gas demand reduction agreed at the EU level⁽²⁾.

Graph 3: **Natural gas demand reduction (August 2022 – January 2024)**



(1) Cyprus does not use natural gas
Source: Eurostat, DG ENER calculations

Diversify energy supplies

1. KEY ACTIONS

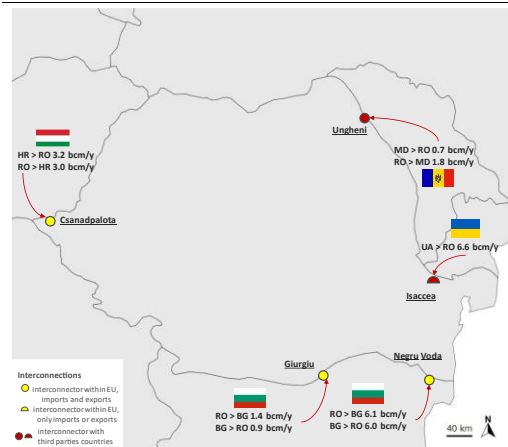
Natural gas remains a crucial component of Romania’s energy system, constituting 26.5% of the overall energy mix (slight decrease from 29% the previous year) and 17% of the electricity mix in 2022⁽³⁾. Despite being the second-largest gas producer in the EU, with considerable domestic production, Romania still depends on imports for about 23% of its gas consumption, mainly during periods of high demand in winter. A significant part of Romania’s gas imports consumption has historically been supplied by Russia. The decrease in Romania’s import dependency is a key part of its national energy policy, following the Russian invasion of Ukraine.

(2) Council Regulation (EU) 2023/706 of 30 March 2023, amending Regulation (EU) 2022/1369
 (3) Eurostat

2. GAS INFRASTRUCTURE DEVELOPMENTS

To increase the security of its gas supply, Romania has focused on improving its gas network and cross-border interconnections. Priority projects include BRUA phase II, to developing its internal transmission network, and connecting the Neptun Deep gas field to the transmission network

Map 1: **Cross-border gas infrastructure**



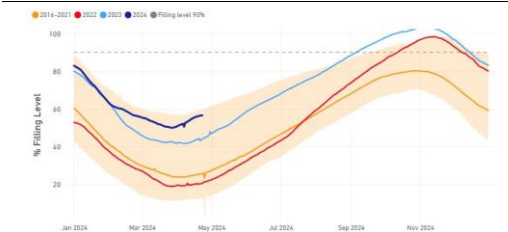
Source: European Commission map recreation (based on ENTSO-G)

3. GAS STORAGE

Romania’s gas storage capacity is at 3.1 bcm, representing 31% of its annual gas consumption in 2022.

Romania fulfilled its gas storage obligations last winter, reaching 102.8% by 1 November 2023⁽⁴⁾, and ended the winter season with a storage filled at 50.86% by 1 April 2024.

Graph 4: **Storage levels in Romania**



Source: JRC calculation based on AGSI+ Transparency Platform, 2024

(4) Regulation (EU) 2022/1032 of the European Parliament and of the Council of 29 June 2022 amending Regulations (EU) 2017/1938 and (EC) No 715/2009 with regard to gas storage.

Energy platform

- In the **four EU tenders** for joint gas purchase organised **under AggregateEU in 2023**, 113 companies across the EU expressed gas demand of over 54 bcm. 48 suppliers replied with bids of more than 61 bcm, resulting in **over 42 bcm of demand matched**.
- In the **first mid-term tender of 2024**, 19 companies expressed 34 bcm of gas demand for the next 5 years, with **97.4 bcm offered by suppliers**.
- According to the indicative data obtained through AggregateEU, companies from Romania aggregated gas demand of **0.14 bcm** in 2023 under the EU Energy Platform. This represents the equivalent of 1.40% of the country's yearly gas consumption.

Produce clean energy

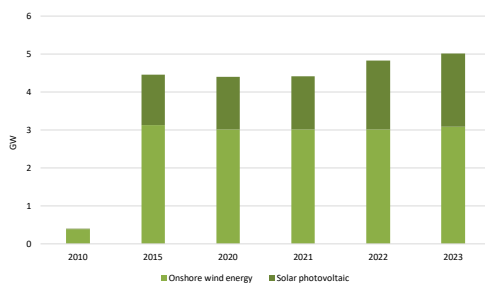
1. INSTALLED RENEWABLE ELECTRICITY CAPACITY, IN WIND AND SOLAR

In **2023**, Romania installed 183 MW of renewable electricity capacity, bringing the total to **11.7 GW** (vs. 11.1 GW in 2021).

In **2023**, the annual growth rate of installed renewables power capacity rose to **1.6%** compared to 0% in 2021⁽⁵⁾.

⁽⁵⁾ International Renewable Energy Agency (2024). Renewable capacity statistics 2024

Graph 5: **Installed solar and wind power capacity (in GW)**



- (1) The renewable power capacity data reflects the capacity installed and connected at the end of the calendar year.
- (2) In 2023, Romania installed 72 MW of wind power capacity (vs. 2 MW in 2021).
- (3) In 2023, Romania installed 108 MW of solar photovoltaic capacity (vs. 11 MW in 2021).

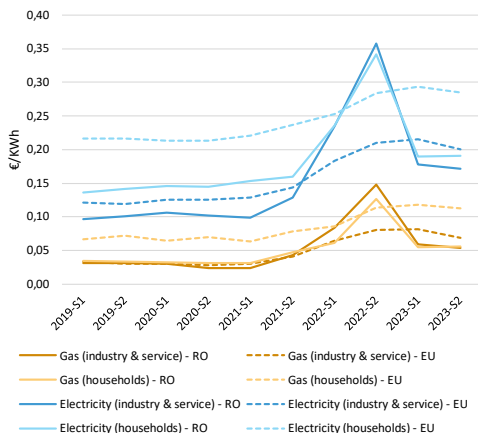
Source: IRENA, Renewable capacity statistics, 2024

2. ELECTRICITY INFRASTRUCTURE DEPLOYMENT

Romania has electricity interconnections with each of its neighbours. There are a number of projects planned until 2030 aimed to strengthen interconnection capacities and to allow integrating more renewable energy. Romania is also part of several important on-going cross-border projects, including a Project of Common Interest (PCI) between Romania and Hungary and the Central and South Eastern Europe Energy Connectivity CESEC priority projects, namely the mid-Continental East Corridor and related internal reinforcement projects, as well as two electricity lines with Moldova, particularly the Suceava-Balti line. Expanded interconnection capacity and greater system flexibility will allow an easier integration of renewable energy.

Energy price developments

Graph 6: **Romania's energy retail prices for households and industry & service**



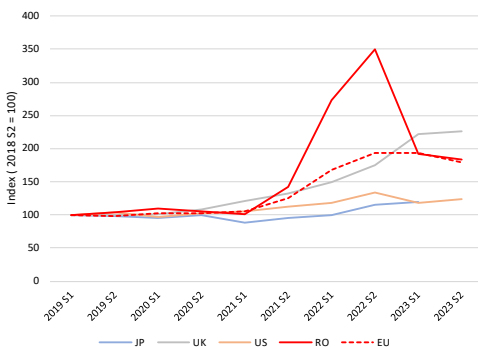
(1) For industry, consumption bands are I3 for gas and IC for electricity, which refer to medium-sized consumers and provide an insight into affordability

(2) For households, the consumption bands are D2 for gas and DC for electricity

(3) Industry prices are shown without VAT and other recoverable taxes/levies/fees as non-household consumers are usually able to recover VAT and some other taxes

Source: Eurostat

Graph 7: **Trends in electricity prices for non-household consumers (EU and foreign partners)**



(1) For Eurostat data (EU and RO), the band consumption is ID referring to large-sized consumers with an annual consumption of between 2 000 MWh and 20 000 MWh, such as in electricity intensive manufacturing sectors, and gives an insight into international competitiveness

(2) JP = Japan

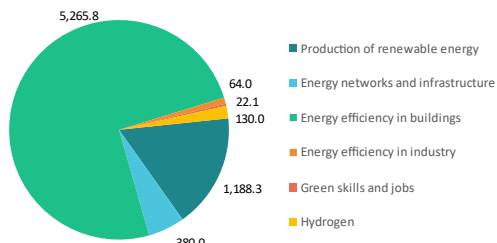
Source: Eurostat, IEA

Smartly combine investments and reforms in the RRP

Amended Recovery and Resilience Plan (RRP), including a REPowerEU chapter:

- Approved by Council: on 8 December 2023
- Total amount: EUR 28.5 billion
- Amount allocated for energy: EUR 7.1 billion
- Climate tagging: RRP: 44.1 %; REPowerEU chapter: 97.5 %

Graph 8: **Energy-related investments in the RRP (in EUR million)**



Source: European Commission

Tangible results: reforms & investments

- **Energy efficiency in buildings:** Investment in a Renovation Wave (more than EUR 2 billion) to renovate 3.2 mln m² of multi-family apartment buildings and 2.3 mln m² of public buildings. Reform to create a simplified regulatory framework to support investments in green and resilient buildings and reduce by at least 50% the time required for the issuance of building permits.
- **Renewables and energy efficiency in buildings:** Additional investments in REPowerEU chapter supporting more than 120 000 homeowners to install solar panels and more than 30 000 homeowners to implement energy efficiency measures, including targeted support for similar measures for 14 000 energy-poor and vulnerable households. Reform to set-up a one-stop shop to provide assistance and support the implementation of the respective investments.
- **Decarbonisation of the energy system:** Reform covering two main measures: the coal phase-out by 2032 and the increase of renewables electricity generation capacity. The Decarbonisation law setting out the calendar for the decommissioning of coal entered into force. A cumulative 3 780MW of coal and lignite-fired installed electricity production capacity will be decommissioned by the end of 2025 (and 2 355MW of coal and lignite-fired installed electricity production

capacity have been already taken out of operation). As a result of the reform to support renewable energy, an additional capacity of at least 3 000MW of wind and solar energy will be put into operation and connected to the grid by 30 June 2026.

Highlights of the National Energy and Climate Plan

- The **draft updated NECP** was submitted to the European Commission in October 2023.
- Member States are due to submit their **final updated NECP by 30 June 2024**, taking into account the Commission recommendations.
- For more information see the dedicated [webpage of the European Commission on the NECPs](#).

Strengthening competitiveness with the Net Zero Industry Act

Romania currently has limited manufacturing capacity for clean technologies, but several promising initiatives could make the country a significant hub for the production of batteries and key solar components. Since 2016, a lithium-ion battery manufacturer has been operating out of Bucharest with a capacity of 0.2 GWh a year. Supported by an investment agreement with the EIT InnoEnergy (Horizon Europe Programme), in 2022 this Romanian battery producer announced plans to scale up production output to 2 GWh by 2024 and to 8 GWh by 2026. More recently, in June 2023 a Belgian company launched a EUR 1.4 billion investment into building a 22 GWh/y lithium-ion battery cell factory in Galati, expected to be fully operational in 2026.

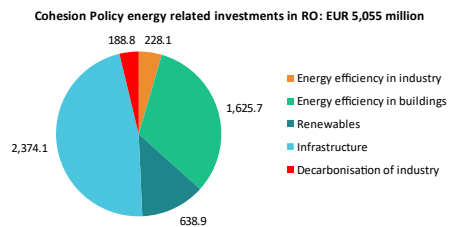
There has been a 150 MW solar module manufacturing unit in Giurgiu since 2012, and a 100 MW assembly line has recently been set up in Transylvania. Two large-scale photovoltaic manufacturing projects (modules, cells and ingot/wafers) led by German and Hungarian companies are also underway.

Other EU initiatives

Cohesion Policy provides significant support to REPowerEU in all EU MS, with a total of EUR 89 billion worth of investments focusing on regions most in need in the energy transition.

Most resources concentrate on energy efficiency in the buildings sector (i.e. 720 000 dwellings across the EU will be renovated and public buildings will decrease their energy consumption by 6000 GWh/year) and on energy infrastructure (i.e. 4.9 GWh of additional electricity storage deployed), followed by renewables (e.g. 9.5 GW of additional renewable energy capacities installed).

Graph 9: **2021-2027 energy-related investments in the Cohesion Funds supporting REPowerEU**



Source: Cohesion Open Data⁽⁶⁾

⁽⁶⁾ <https://cohesiondata.ec.europa.eu/d/hqyj-qvin>