#### **SOLAR** Pro.

### Romania capital1 solar energy

How much solar energy does Romania need?

In the context of the European ambitions, Romania would need to aim for 44.4% RES, meaning 11.1 GWof solar - 6.1 GW for utility-scale and 5 GW for rooftop PV1. Drivers for solar growth The last two years have been marked by significant legislative changes that underpinned the development of the Romanian PV sector.

Why should we invest in Romanian solar?

Econergy identified Romania as an important European renewables player at the end of the 2010s and has become a leading developer and investor in Romanian PV. We have learned where Romania's bold commitments create opportunity, where growth is delayed, and how Romania is weathering current international challenges. Solar regulation

What does Romania's new energy plan mean for the world?

In late 2023, the Romanian government raised the ambition of the draft National Energy and Climate Plan it presented to the COP. The new plan aims for 36% of Romania's energy to come from renewables by 2030 - higher than the figure allocated it by the European Commission - with 8.3 GW of solar and 7.6 GW of wind.

Is Romania a good country for solar energy?

National targets for solar PV With an average of 1,900 to 2,400 annual sunlight hours, Romania has significant natural potential for solar PV development. Yet, the country has not set ambitious targets for renewable energy sources, aiming for only 30.7% of its final energy consumption to come from RES by 2030.

How much solar capacity does Romania have in 2023?

The 1 GW of newly installed solar capacity in Romania this year marks a 308 percent increase over the capacity added in 2022. The cumulative distributed and utility-scale solar capacity of the nation has surpassed 2.85 GWin 2023, producing in excess of 2.5 TWh or almost 5% of the overall power generation.

How does Romania support the production of solar / PV energy?

The Romanian State supports the production of solar /PV energy by offering six (6) green certificates for each MWh produced and injected into the grid.

Romania is undergoing a significant expansion in solar power within its broader energy transition framework, bolstered by European funding and legal reforms. This upsurge has prompted investments across the spectrum, from individual households as prosumers to utility-scale facilities, with local government units emerging as a significant ...

OverviewHistoryProjectsGovernment supportSee alsoExternal linksSolar power in Romania had an installed capacity of 1,374 megawatt (MW) as of the end of 2017. The country had in 2007 an installed capacity of 0.30 MW, which increased to 3.5 MW by the end of 2011, and to 6.5 MW by the end of 2012. However, the

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record year of 2013 was an exception, and new installation fell back from 1,100 MW to a moderate level of 69 MW in 2014.

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Energy self-sufficiency (%) 78 67 Romania COUNTRY INDICATORS AND SDGS TOTAL ENERGY SUPPLY (TES) Total energy supply in 2021 Renewable energy supply in 2021 31% 29% 9% 13% 18% Oil Gas ... Solar PV: Solar resource potential has been divided into seven classes, each representing a range of annual PV output per unit of capacity

to incentives, Romania introduced the Casa Verde Fotovoltaice project in 2019 to cover up to 90% of capital expenses of solar systems for residential segments with a minimum capacity of 3 kW. As of 2023, the financing scheme covered up to 4000 euros of an investment in a PV system of minimum 3kW, but

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Romania boasts an ideal climate for solar energy, with an average of 1,600 kWh/m2 of solar irradiation annually. To encourage the expansion of solar energy development, the government has implemented many national and European policies to incentivise more renewable investment.

According to projections presented at the conference, Romania"s total PV capacity could reach 2.5 GW by the end of 2023, almost 6 GW by 2027, and 11.2 GW by 2030. A large part of the expected additions will likely be systems by prosumers as residential solar is attracting huge interest, supported by the Casa Verde programme.

Romania announced plans to raise its installed solar capacity to 8 GW by 2030 (up from 1.4 GW at the end of 2022), aiming to contribute 24% of its gross final electricity consumption from renewable sources, as part of its pledges on climate action for its accession to the International Solar Alliance.

Romania is located in an area with a good solar potential of 210 sunny days per year and with an annual solar energy flux between 1,000 kWh/m 2 /year and 1,300 kWh/m 2 /year. From this total amount around 600 to 800 kWh/m 2 /year is technically feasible. [4]



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