

	State	Serbia
General information	Status EU membership	EU Candidate since March 2012 ¹ . Contracting Party to the Energy Community ² since 1 July 2006 ³
	Population	6,844,078 (2022) ⁴
	Land area (km²)	87,460 km ² (2020) ⁵
	Urban population (%)	57 % (2022) ⁶
	GDP (current US\$ billion)	65.08 (2022) ⁷
Socio-economic situation	GDP per capita (US\$)	9,215 (2022) ⁸
	Average annual net earnings (RSD/EUR)	890,016 RSD (2022) ⁹ / 7,579.17 EUR (1 EUR = 117.4292 RSD, 31/07/2022 rate ¹⁰)
	Average Monthly Earnings (RSD/EUR)	74,168 RSD (2022) ¹¹ / 631.59 EUR (1 EUR = 117.4292 RSD, 31/07/2022 rate ¹²)
	Median net Monthly earnings (RSD/EUR)	56,582 RSD (May 2022) ¹³ / 481.83 EUR
	World Bank economic classification (2021)	Upper-middle-income economy ¹⁴
	Unemployment (% of total labor force)	10,01% (2022) ¹⁵
Energy situation in general	Current energy sources	<ul style="list-style-type: none"> - In 2022 the primary fuel mix of Serbia consisted of: 65.7% Solid Fossil Fuels, 8.4 % of Oil and petroleum products, 7% Hydro, 3% Natural Gas and 15 % Other renewables¹⁶. - Electricity Generation in 2020 consisted of¹⁷: <ul style="list-style-type: none"> o Non-renewable 27 741 GWh (73%) o Renewable 10 216 GWh (27%), of which: <ul style="list-style-type: none"> ▪ Hydro: 9 034 GWh (24%) ▪ Solar: 13 GWh ▪ Wind: 976 GWh (3%) ▪ Bioenergy: 192 GWh (1%) <p>*Updated data on Serbia' implementation performance and key energy sector is available at the Energy Community Serbia page.¹⁸</p> <ul style="list-style-type: none"> - Serbia's electricity production mostly relies on coal and, to a lesser extent, hydropower. - Serbia produces some oil and gas, but remains highly dependent on imports, especially of gas from Russia. The "Turk Stream 2" project connects Serbia with Bulgaria, but breaches European rules.¹⁹
	Climate protection targets	<ul style="list-style-type: none"> - Ratified the Paris Agreement in July 2017²⁰ - The target of 9.8% reduction in GHG emissions by 2030 compared to 1990, according to the first Nationally determined contribution (NDC1, 2017).²¹ NDC2 should have been submitted by the end of 2021²².

	<ul style="list-style-type: none"> - Preparation of the Integrated National Energy and Climate Plan of the Republic of Serbia from 2021 to 2030 with the vision until 2050 (INECP) is underway, within the IPA project "Further Development of Energy Planning Capacity".²³ - Law on Climate Change, passed into law in mid-March 2021, envisions that within the next two years the authorities will adopt a national, low-carbon development strategy, including a ten-year action plan. The law will create a legislative framework that sets climate change development goals²⁴.
Renewable energy targets	<ul style="list-style-type: none"> - With 21,44% of renewable energy sources, Serbia was still far from its overall indicative trajectory of 25,6% in 2019 and 27% in 2020. None of the indicative sectorial targets have been reached in 2019 (IR2021, p.10)²⁵. - The share of renewable energy sources in transport remained barely above 1%, while the target for 2020 is 10% (IR2021, p.10)²⁶.
Renewable energy potential	<ul style="list-style-type: none"> - Total capacities of renewable energy in 2021: 3524 MW, with the highest share from Large Hydropower (2355 MW), followed by Pumped Storage (614 MW) and Wind (398 MW)²⁷. <p>*Updated data is available at the Energy Community Serbia page²⁸.</p>
Renewable energy support regime	<ul style="list-style-type: none"> - The Law on Renewable Energy Sources allows the state to launch tender processes for strategic investor partnerships in green energy; introduces auctions to allocate renewable energy support; and allows citizens and companies to produce energy for their own consumption. It also bans construction of all hydropower plants in protected areas²⁹. - Guaranteed and priority access to the network for electricity produced from renewable energy sources is provided. Based on the methodology adopted by the regulator, system operators adopt acts on the amount of connection costs for all producers including renewable (IR2021, p.10)³⁰. - No progress has been made to simplify administrative procedures and establish a one-stop shop in the reporting period. An electronic system for issuing, transfer, and cancellation of guarantees of origin is functional (IR2021, p.10)³¹. - Renewable energy projects with capacity of less than 500 kW and 3 MW for wind are entitled to feed-in tariffs (FiT), while auctions based on a feed-in premium (FiP) will be held for other projects based on quotas, which are yet to be defined. Currently, renewable energy producers are not responsible for imbalances. However, the Law anticipates the conversion to full balancing responsibility once the intraday market is liquid (IR2021, p.10)¹⁷. - Once the regulator announces that the intraday market is liquid, large (above 500 kW and 3 MW for wind) renewable energy producers will have to arrange their balance responsibility in accordance with the relevant legislation (Energy Law and Market

Rules). This is in line with the Guidelines on State Aid for Environmental Protection and Energy. (IR2021, p.10)³².

Legal and political framework for citizen energy	<p>Relevant laws, policies, and plans</p> <ul style="list-style-type: none"> - Law on the Use of Renewable Energy Sources, adopted in April 2021 and ratified by the parliament in May 2021³³. - A decree on self-consumption, adopted in August 2021, enables a net metering scheme for households or housing communities and a net billing scheme for all other self-consumers³⁴. - The Law on Climate Change was adopted in March 2021. It prescribes the adoption of the Low Carbon Development Strategy with an Action Plan within two years from the adoption of the Law. A set of bylaws is currently being drafted.³⁵ - The priority for Serbia is the adoption of the necessary secondary legislation to enable implementation of the Law on the Use of Renewable Energy Sources (IR2021, p.11)³⁶. <p>Regulatory framework for citizen energy</p> <ul style="list-style-type: none"> - The Law on the Use of Renewable Energy Sources enabled self-consumption, including jointly acting self-consumption, as well as energy communities (IR2021, p.10)³⁷. - A decree on self-consumption, adopted in August 2021. - In September 2021, the Ministry of Mining and Energy published a call for the programme to subsidize households to install solar panels and become self-consumers (IR2021, p.11)³⁸. - Net metering still lacking, return on investment is too slow³⁹ - Citizens who decide to become prosumers will be entitled to net metering⁴⁰. A prosumer can draw both electricity from own production and electricity provided by state power utility Elektroprivreda Srbije (EPS) as a supplier. - If a prosumer's output exceeds consumption, however, the prosumer does not get any compensation.⁴¹ - As of July 2022, the procedure for acquiring a permit was simplified significantly. 	
	Legal and political framework for citizen energy	<p>Evaluation of the legal framework</p> <ul style="list-style-type: none"> - Enabling, with the institutions being rather supportive and motivating, however, citizen interest to participate in the process was still limited as of July 2022 <p>*Energy Community provides an updated assessment of implementation performance and recommendations, including in the field of renewable energy and energy efficiency⁴².</p>
Existing citizen energy projects and/or research	<p>Citizen energy projects</p>	<p>Two energy cooperatives registered in Serbia:⁴³</p> <p>Elektropionir: energy community established in December 2019; aim to empower citizens to actively participate in the energy transition in Serbia; looking for locations for first solar PV project; involved in advocacy activities⁴⁴</p> <p>Energy Cooperative "Sunčani krovovi" (Sunny Roofs) from Šabac, first renewable energy cooperative in Serbia in the municipality of Šabac⁴⁵</p>

Research and capacity building activities	<p>Green Rural Deal Project⁴⁶, funded by EUKI:</p> <ul style="list-style-type: none"> - aimed at developing capacities for a transition to a zero-carbon economy in Greece, Kosovo, and Serbia (Municipality of Priboj) - Project partners: Wuppertal Institute, Germanwatch, Balkan Green Foundation, RES Foundation as well as a Local Government Association of Western Macedonia - Municipality of Priboj shows political commitment to climate and energy policies; transition to locally available biomass in the district heating system, "Priboj's opportunities lie on the promises for expanded usage of locally available wood biomass as well as the institutional and technical potential for local energy community projects, i.e. energy cooperatives or crowdfunding. <p>Horizon 2020 project mPOWER (Municipal Action, Public Engagement and Routes Towards Energy Transition)^{47,48}</p> <ul style="list-style-type: none"> - Energy Cities and RES Foundation hosted an mPower webinar to help municipalities and communities across the Balkans harvesting renewables together through cooperatives or energy communities. The event included the Serbian Roadshow supported by the European Climate Foundation, with input from REScoop and Friends of the Earth Europe <p>The Elektropionir cooperative organized its first seminar on prosumers for ordinary citizens, which showed that there is a strong interest among citizens as well as the need to learn more about what it means to be a prosumer⁴⁹.</p> <p>Panel Discussion on citizen energy (in Serbian)⁵⁰</p>
NGOs	<ul style="list-style-type: none"> - Institute Veolia - Germanwatch
Governmental bodies	<ul style="list-style-type: none"> - Energy Agency of the Republic of Serbia (AERS) - Serbian Environmental Protection Agency - Ministry of Mining and Energy
Local governments	<ul style="list-style-type: none"> - Municipality of Šabac⁵¹ - Municipality of Priboj - The City of Čačak, member of Energy Cities since 2006 - Municipality of Niš, member of Energy Cities since 2003
Private actors	<ul style="list-style-type: none"> - Energy Cooperatives: Elektropionir, Solar Roofs - RES Foundation⁵² - CONSEKO, Solar energy company - ENERGIA, Energia Gas and Power, the second supplier of electricity in Serbia⁵³ - insurer DDOR Osiguranje is offering insurance for rooftop solar systems
International/supra-national actors	<p>Energy Cities, The European association of cities in energy transition⁵⁴ UNDP Serbia, GIZ Serbia Heinrich Boell Stiftung Belgrade</p>
Academia	

Relevant actors and stakeholders

Others

Summarizing evaluation

Fields of Action

- **More information should be made available** on the possibilities of citizen energy (CE) and the legal framework for CE, while educating the interested parties how to go through the permitting procedure.
 - **Providing education and capacity building** for the potential investors and actors developing citizen energy project ideas with **business modeling logic** and educating them on how to organize **co-investing and crowd-funding**.
 - **NGOs should be supported and provided funds to take a more active role** in the process of citizen energy projects' development, to develop their own projects, provide education, or participate in lobbying.
 - **Legal changes** that allow development of CE projects should be **made more visible and promoted**
 - **Collaboration between local authorities and other actors should be enhanced** for smoother permitting process.
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¹ On 21 January 2014, the 1st Intergovernmental Conference took place, signalling the formal start of Serbia's accession negotiations. Serbia has opened 18 chapters and provisionally closed 2 chapters. https://ec.europa.eu/neighbourhood-enlargement/enlargement-policy/serbia_en

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

³ <https://www.energy-community.org/implementation/report/Serbia.html>

⁴ <https://data.worldbank.org/indicator/SP.POP.TOTL?locations=RS>

⁵ <https://data.worldbank.org/indicator/AG.LND.TOTL.K2?locations=RS&view=chart>

⁶ <https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?locations=RS>

⁷ <https://tradingeconomics.com/serbia/gdp>

⁸ <https://tradingeconomics.com/serbia/gdp-per-capita-us-dollar-wb-data.html>

⁹ <https://www.stat.gov.rs/sr-Latn/oblasti/trziste-rada/zarade>

¹⁰ https://ec.europa.eu/info/funding-tenders/procedures-guidelines-tenders/information-contractors-and-beneficiaries/exchange-rate-inforeuro_en

¹¹ These are available for every month: <https://www.stat.gov.rs/sr-Latn/oblasti/trziste-rada/zarade>

¹² https://ec.europa.eu/info/funding-tenders/procedures-guidelines-tenders/information-contractors-and-beneficiaries/exchange-rate-inforeuro_en

¹³ <https://www.stat.gov.rs/en-US/oblasti/trziste-rada/zarade>

¹⁴ <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>

¹⁵ <https://data.worldbank.org/indicator/SL.UEM.TOTL.NE.ZS?locations=RS>

¹⁶ <https://www.energy-community.org/implementation/report/Serbia.html>

¹⁷ https://www.irena.org/-/media/Files/IRENA/Agency/Statistics/Statistical_Profiles/Europe/Serbia_Europe_RE_SP.pdf

¹⁸ Ibid.

¹⁹ (IR 2021) Energy Community Annual Implementation Report. November 2021 (<https://www.energy-community.org/implementation/reporting/RS.html>)

²⁰ http://www.wecf.org/wp-content/uploads/2018/06/EnergyCoops_LongOnline.pdf

²¹ https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Serbia%20First/Republic_of_Serbia.pdf

²² <https://www.energy-community.org/implementation/reporting/RS.html>

²³ funded by the European Union, implemented by LDK Consultants SA in consortium with the Centre of Renewable Energy Sources and Saving (CRES). The Working Group engaged in the development of this document is operational and consists of 19 national institutional stakeholders and a total of 83 representatives and 3 civil society organisations. Apart from the Working Group members, the Ministry of Mining and Energy has launched a procedure of collecting the opinions of various educational institutions, scientific institutes and associations on specific topics.

<https://balkangreenenergynews.com/eu-supports-serbia-in-preparing-the-integrated-national-energy-and-climate-plan-inecp/>

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- ²⁴ <http://country.eiu.com/article.aspx?articleid=620986645>
- ²⁵ (IR 2021) Energy Community Annual Implementation Report. November 2021 (<https://www.energy-community.org/implementation/reporting/RS.html>)
- ²⁶ Ibid.
- ²⁷ <https://www.energy-community.org/implementation/report/Serbia.html>
- ²⁸ Ibid.
- ²⁹ <http://country.eiu.com/article.aspx?articleid=620986645>
- ³⁰ (IR 2021) Energy Community Annual Implementation Report. November 2021 (<https://www.energy-community.org/implementation/reporting/RS.html>)
- ³¹ Ibid.
- ³² Ibid.
- ³³ <https://www.energy-community.org/implementation/report/Serbia.html>
- ³⁴ Ibid.
- ³⁵ Ibid.
- ³⁶ (IR 2021) Energy Community Annual Implementation Report. November 2021 (<https://www.energy-community.org/implementation/reporting/RS.html>)
- ³⁷ Ibid.
- ³⁸ Ibid.
- ³⁹ <https://www.resfoundation.org/retrofits-renewable-energy-energy-communities-in-the-balkans-meet-municipal-energy-community-trailblazers-in-the-balkans/#> (video, minute 10)
- ⁴⁰ Net metering is a mechanism under which prosumers are billed for the difference between the amount of electricity they produce and the amount they consume. When output from a prosumer's solar panels exceeds self-consumption needs, the surplus is added to the distribution network, which is operated by distribution system operator Elektro distribucija Srbije, and when output is lower than the prosumer's needs, then electricity is drawn from the grid
- ⁴¹ <https://balkangreenenergynews.com/fast-track-procedure-to-be-devised-for-connecting-prosumers-to-grid/>
- ⁴² <https://www.energy-community.org/implementation/report/Serbia.html>
- ⁴³ <https://www.gu.ni.rs/international-cooperation/cooperation-with-embassies-and-international-organizations/on-the-road-to-eu/?pismo=lat>
- ⁴⁴ <https://www.resfoundation.org/energy-cooperatives-decentralization-and-democratization-of-energy-production>
- ⁴⁵ <https://balkangreenenergynews.com/sunny-roofs-serbias-first-energy-cooperative/>
- ⁴⁶ <https://germanwatch.org/fr/node/20187>
- ⁴⁷ <https://cordis.europa.eu/project/id/785171/reporting>
- ⁴⁸ Video with brief info by Elektroponir, Bulgaria, challenges in Croatia ZEZ, BiH REIC, CZ Republic , <https://www.resfoundation.org/retrofits-renewable-energy-energy-communities-in-the-balkans-meet-municipal-energy-community-trailblazers-in-the-balkans/>
- ⁴⁹ <https://balkangreenenergynews.com/fast-track-procedure-to-be-devised-for-connecting-prosumers-to-grid/>
- ⁵⁰ <https://greenfest.rs/en/panel-discussions-lectures/>
- ⁵¹ Slobodan Jerotić, Šabac municipality. Panel 'Clean energy for us' organised by RES Foundation within the Conference on Renewable Energy Sources organized by the French Institute in Belgrade (Serbia) on 19-20 June 2019. Muzej Jugoslovenske Kinoteke Beograd. (reported on in Capellán-Pérez et al. 2020, <https://doi.org/10.1016/j.erss.2019.101348>)
- ⁵² RES Foundation "collects, analyses and distributes knowledge for evidence-based policy making in energy and climate change, primarily in Serbia, the Western Balkans and Southeast Europe"; <https://www.resfoundation.org/category/our-affiliations/>
- ⁵³ Both CONSEKO and Energia representatives appear in the video talking about energy transition / cooperatives: <https://www.resfoundation.org/retrofits-renewable-energy-energy-communities-in-the-balkans-meet-municipal-energy-community-trailblazers-in-the-balkans/#>
- ⁵⁴ <https://energy-cities.eu/members/>