



Press Release

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Breakthrough growth in renewables in South-East and Eastern Europe, the Caucasus and Central Asia must be accelerated to end fossil dependency and boost energy security.

- Renewables and energy efficiency offer an opportunity for a secure and sovereign energy supply in the region, find REN21 and the United Nations Economic Commission for Europe (UNECE) in their latest regional status report.
- The region has seen an unprecedented growth in renewable electricity since 2018. The transport and heating and cooling sectors have not seen such increases.
- Public and private investment in renewables across the focus countries remains modest compared to global growth trends. Countries of the region need significant investment in renewables.
- The Russian invasion affected 90% of Ukraine's wind power capacity and 30% of its solar power capacity, representing around a quarter of the total wind capacity and a fifth of the solar capacity in the region.

Paris, 14.09.2022 – Between 2017^[1] and 2021, 17 countries of South-East and Eastern Europe, the Caucasus, and Central Asia, plus Kosovo^[2], saw an unprecedented growth in renewable power capacity. Over this period, they cumulatively added 21 gigawatts (GW) of capacity, for a total installed renewable power capacity of 106 GW^[3]. For the first time, this growth was driven mainly by solar photovoltaic (PV) (58%) and wind power (25%) additions. The region's wind power capacity grew by more than a factor of 7 and solar PV capacity by more than a factor of 10 between 2017 and 2021.

Ukraine installed the most solar PV and wind power capacity during this period (8.3 GW), followed by Kazakhstan (3.7 GW) and the Russian Federation (3.5 GW). These three countries all ranked among the world's top 30 countries for renewable energy investment in 2019, with Ukraine ranking 17th (USD 3.4 billion), the Russian Federation 20th (USD 2.3 billion) and Kazakhstan 28th (USD 0.8 billion).

Released today, the *UNECE Renewable Energy Status Report 2022* was prepared jointly by the Renewable Energy Policy Network for the 21st Century (REN21) and the United Nations Economic Commission for Europe (UNECE). It provides the latest update on the status of renewables and energy efficiency in Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Kosovo, the Kyrgyz Republic, Moldova, Montenegro, North Macedonia, the Russian Federation, Serbia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

Energy security at the forefront

Despite breakthrough progress in renewables, these focus countries continue to depend heavily on fossil fuel sources and rely on a limited number of energy exporters, especially the Russian Federation. According to the report, 13 of the countries are highly dependent on energy imports,





with 4 countries – Armenia, Belarus, Georgia, and Moldova – importing more than 70% of their total primary energy supply. Renewables could help countries diversify their energy supply and protect against fluctuating natural gas and oil prices.

Large subsidies for fossil fuels and low tariffs for fossil and nuclear based energy hinder rapid deployment of renewables across all sectors. Although the size of energy subsidies as a share of gross domestic product (GDP) has declined in all the focus countries, it was still significant in 2020, especially in Uzbekistan (6.6%), Turkmenistan (3.2%), Kazakhstan (2.6%) and Azerbaijan (2.4%).

"Renewable energy growth in the region through 2021 was driven mainly by favourable policies and by the falling costs of renewable energy technologies – but now, energy security is absolutely at the forefront. Moving away from fossil fuel has never been as vital for the region," said Rana Adib, REN21 Executive Director.

"With the UN climate talks (COP27) only a few months away, countries and investors in the UNECE region must urgently redouble their commitments to renewables deployment to achieve global net zero targets and end fossil fuel dependency," said UNECE Executive Secretary Olga Algayerova. "This action is also vital to help countries get on track to meet the UN Sustainable Development Goals and to speed the transition to resilient energy systems. Scaling up renewables investment is crucial to strengthen energy security and affordability in light of the energy and financial shocks related to the conflict in Ukraine."

The Russian invasion of Ukraine undermines progress in renewables in the region

As a consequence of the Russian Federation's invasion, around 90% of the installed wind power capacity and around 30% of the installed solar power capacity in Ukraine was out of operation as of June 2022. This affected nearly a quarter of the region's total wind capacity and a fifth of its solar capacity since Ukraine has been a leader in renewable installations and investment in recent years.

"The Russian invasion of Ukraine and its spillover effect on neighbouring countries are undermining renewable power generation in the short term. At the same time, it has shed new light on the benefits of a rapid energy transition and could bring a surge in renewable installations in the region," said Adib.

The potential for renewables in the region remains untapped

Despite significant growth in renewable power, the potential of renewables across other sectors remains untapped. Buildings, transport, and industry account for the largest energy consumption across the region, yet the share of renewables in these sectors' energy use has changed little. Ukraine achieved the highest share of renewable energy in transport across the region, at only 2.5% in 2020.

Energy efficiency policies, especially for buildings, improved greatly across the region over the last five years. However, the energy intensity of all focus countries except Albania remained higher than in the European Union (EU-27) in 2019, with the highest rates in Turkmenistan and the Russian Federation.





Need for increased investment, regional co-operation and domestic supply

The report documents significant progress in the adoption of policies and targets for renewable energy and energy efficiency, with 15 of the focus countries having established national renewable energy targets and 4 countries having set a target for net zero emissions or carbon neutrality. However, gaps remain in the adoption of policies and action plans, and implementation remains slow.

As a result, the combined public and private investment in renewables across the focus countries remains modest compared to global growth trends. In 2016, renewable energy investment in the region fell to USD 2.7 billion before returning to the 2013 level of USD 7.2 billion in 2018, representing around 2.2% of the global total [4]. In comparison, USD 56.5 billion was invested in renewables in the EU in 2018.

"To ensure a low-carbon future with stable energy costs, countries need to commit today to a renewables-based energy system. This can be achieved through policy implementation, long-term funding to grow domestic supply chains and stronger regional co-operation," said Algayerova.

"Investment in renewable energy capacities as well as local and regional supply chains needs to be significantly increased in the region. This will not only create economic opportunities but also is crucial for building-up long-term energy security", Adib added

Most of the focus countries import key technologies such as solar panels and collectors, wind turbines and efficient heat stoves. Investing in regional and domestic supply chains can create added value and boost economic growth. Distributed (decentralised) renewables, which remain largely untapped in the region, could help overcome energy poverty and foster economic growth. They can empower stakeholders (such as municipalities, communities and citizens), increase gender equality and strengthen resiliency to shocks such as natural disasters and conflicts.

About REN21 and the REN21 UNECE Renewable Energy Status Report 2022

REN21 is the only global community of renewable energy actors from science, academia, governments, non-governmental organisations and industry across all renewable energy sectors. Our community is at the heart of our data and reporting culture. All our knowledge activities, including the *REN21 UNECE Renewable Energy Status Report 2022*, follow a unique reporting process that has allowed REN21 to be globally recognised as a neutral data and knowledge broker. All REN21 documents carrying the REN21 stamp have been produced according to a six-pillar process:

- Developing data collection methods that build on a global multi-stakeholder community of experts from diverse sectors, enabling access to dispersed data and information that frequently are not consolidated and are difficult to collect.
- Consolidating formal (official) and informal (unofficial/unconventional) data gathered from a wide range of sources in a collaborative and transparent way (e.g., by using extensive referencing).
- Complementing and validating data and information in an open peer-review process.
- Obtaining expert input on renewable energy trends in the target year through interviews and personal communication between the REN21 team and authors.





- Using validated data and information to provide fact-based evidence and to develop a supportive narrative to shape the global and regional debate on the energy transition, monitor advancements and inform decision processes.
- Making data and information openly available and our sources transparent so they can be used by people in their work to advocate for renewable energy.

The REN 21 UNECE Renewable Energy Status Report 2022 benefited from the comments and feedback of more than 260 contributors and peer reviewers from the region and around the world.

About the United Nations Economic Commission for Europe (UNECE)

The United Nations Economic Commission for Europe (UNECE) was set up in 1947 by ECOSOC and is one of five regional commissions of the United Nations. UNECE's major aim is to promote pan-European economic integration. UNECE has been working on energy issues for the past 75 years, bringing together 56 countries in Europe, North America, Central Asia and Western Asia. Since 2014, UNECE holds a dedicated Group of Experts on Renewable Energy, which carries out concrete result-oriented activities that help significantly increase the uptake of renewable energy in the region. UNECE works to promote a sustainable energy development strategy for the region, with the following objectives:

- sustained access to high quality energy services for all individuals in the region;
- security of energy supplies in the short-, medium- and long-term;
- facilitate a transition to a more sustainable energy future and introduce renewable energy sources to reduce health and environmental impacts resulting from the production, transport and use of energy;
- well-balanced energy network systems across the region, tailored to optimise operating efficiencies and overall regional cooperation;
- sustained improvements in energy efficiency, in production and use, particularly in countries with economies in transition; and
- in the context of post-EU enlargement, the integration of energy restructuring, legal, regulatory and energy pricing reforms, as well as of the social dimension into energy policy making.

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- 11 The previous edition of REN21's UNECE Renewable Energy Status Report was published in 2017 and is available here.
- [2] All references to Kosovo are made in the context of UN Security Council Resolution 1244 (1999).
- [3] For comparison, the global installed renewable power capacity reached 3,146 GW in 2021 (REN21 2022).
- These estimates are from IRENA and CPI (2020) and refer to public and private, international and domestic investment. The calculation includes Lithuania, Latvia, Bulgaria, and Romania. Since background data for public international flows are more widely available while rather limited for other flows; the estimates hold good for analysing growth trends over actual volumes.