

‘Wind, sun and tides never run out.

If we can successfully replace finite, polluting fossil fuels with infinite renewable resources, we can make the energy equation add up’ -

Antonio Guterres, United Nations Secretary General, June 2022.

1. WHAT IS JUST TRANSITION AND WHY DOES IT MATTER?



This thematic update presents the concept of the **“just transition” and progress made on this agenda in Serbia**. According to the International Labour Organization (ILO), the just transition is defined as a transition from a fossil-fuel dependent to a green economy that is designed in a way that not only reduces our environmental footprint, but also addresses existing socioeconomic disparities and avoids creating new ones. (ILO, [Guidelines for a just transition](#), 2015).

The **urgency** of the transition away from fossil fuel is becoming ever more apparent. Devastating heat waves, droughts, forest fires and floods remind us of how little time is left before critical thresholds are crossed, that would set the climate on a path of dangerous instability. And, in the very communities in Serbia where coal is mined and burned for energy, the impact on air quality, health and quality of life are also already stark.

At the global level, about 8,500 coal power plants are currently in operation, producing a third of global electricity and about a fifth of global greenhouse gas emissions, more than any other single source ([World Bank](#)). The UN Secretary-General [called for the phasing out of coal in OECD nations by 2030 and by 2040 for the rest of the world](#).

Important commitments were made in Glasgow at COP 26, with the Powering Past Coal Alliance, which currently includes 33 national governments and 27 subnational governments. However, the current

energy crisis, with multiple causes, is undermining coal phase-out efforts everywhere, and 300 new coal power plants are now slated to be started in the coming five years worldwide ([World Bank](#)).

The just transition is a necessary – though not sufficient – condition of success for the SDGs as it broadly supports the entirety of the 2030 Agenda and is specifically related to the achievement of 8 of the Global Goals, as shown in Box 1.

Box 1 - The Just Transition and the SDGs

The just transition is an integral part of Agenda 2030, and directly contributes to the achievement of most of the SDG Goals. Notably, a well-managed green transition:

- **creates decent work and economic growth (SDG 8), contributing to lowering poverty (SDG 1);**
- **mitigates climate change pressure (SDG13) and reduces pollution and ecosystem degradation (SDG 14 and 15);**
- locks in research and development programmes that produce important **innovations (SDG 9);**
- produces income opportunities in rural areas, reducing migration pressure on **urban centres (SDG 11);**
- has numerous spillover effects on **good health and well-being (SDG3)** from better air quality;
- promotes participatory decision-making that enhances **equality (SDG10)** and **gender parity (SDG 5)**.



2. THE CHALLENGE OF SERBIA'S JUST TRANSITION IN THE ENERGY SECTOR

This policy update focuses on energy transition, as it is one of the aspects of the just transition that is most pressing and complex in Serbia. The just transition will need progress in other areas, including through sectoral reforms (in agriculture, the built environment, transport, waste, tourism and industrial production) and structural approaches, aimed at promoting circularity, a dynamic labour market, an education system that provides the necessary skills and competencies, alongside the promotion of a healthy lifestyle.

A just transition in the energy sector aims at securing clean, affordable energy for all, with net-zero emissions, while protecting the most vulnerable from unwarranted energy price increases and creating opportunities and wellbeing for fossil fuel dependent workers and communities. The challenges Serbia faces in the energy sector alone cannot be overstated. The country still **satisfies** most of its **power demand with fossil fuels (88%)** - including almost 50% from coal - while **“energy intensity”** – that is the amount of energy needed for each unit of GDP - is 150% higher than the EU average ([OECD Energy Dataset](#)).

Energy efficiency is extremely low in Serbia, due to the use of outdated heating devices and appliances in households, the insufficient uptake of energy efficiency measures by business and losses in the distribution network, amongst others. As regards households, it is estimated that the average consumption of thermal energy per square meter in Serbia is 2.5 times higher than the average consumption in the EU (see: Energy Security in Serbia).

Additional challenges in Serbia include: 1) repurposing of coal infrastructure 2) resistance to change; 3) lack of awareness in various segments of society and 4) lack of skills.

Designing targeted interventions for **specific categories** will be of key importance, especially in the current context, characterized on the one hand by a projected slowdown in economic recovery, and on the other by rising inflation. The measures accompanying the Just Transition package would have to focus on families with **young children** which are overrepresented among the poor population. It should also be **gender-sensitive**, as energy poverty has a woman face in Serbia¹. Elderlies living alone, refugees and Roma, those living in rural or remote areas, will also need dedicated support.

Box 2: Gender-responsive energy policies

In designing the just transition, it is important to take gender specificities into account. In particular:

- women spend more time preparing meals in as many as 82% of cases, which may result in health problems and risks from long-term exposure to pollution from stoves.
- households owned by women use older heating devices compared to households owned by men.
- men rate the quality of heating in their own household better than female respondents.
- the most common temperature in a residential building during the heating season is slightly higher in households with more women (23.0°C) than in homes with more men (22.4°C).

(Source: [Energy Poverty in Serbia](#))

¹ According to a 2020 Survey jointly implemented by UN Women Serbia, the Social Inclusion and Poverty Reduction Team (SIPRU) and the RES Foundation, women are at a greater risk of energy

poverty than men, due to their lower average income. Additionally, relying on wood and other forms of biomass is strongly associated with health issues for women. See Box 3 for additional details.

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The Government of Serbia has articulated the following [objectives](#) for the energy sector transition:

1) Complete coal phase out of by 2050, compensated by an increased the share of renewable energy in gross final energy consumption and production (to 41% and 49.1%, respectively) and the possible introduction of small nuclear reactors and green hydrogen;

2) Energy efficiency measures (respectively to 25% in the tertiary sector, and 15% in the residential one by 2050) and of solar water heaters (to cover at least 15% of the demand for hot water in the residential sector, also by 2050), as stated in the [Climate Strategy and Action plan](#).

In support of these goals, the Government has introduced led key **legislative reforms and policy interventions in 2021 and 2022** (see Box 3).

Additional steps are however needed to operationalize the initial legislative framework. The most pressing are the adoption of the National Climate and Energy Plan (NCEP), and of the Low Carbon Development Strategy. Preliminary work leading up to the adoption of the NCEP is in progress. At the time of writing and the Ministry of Energy and Mining is inviting [comments](#) on preliminary materials prepared for the NCEP, as a first step of a broader consultation process.

Box 3 – Recent legislative and policy initiatives

- The first **Law on Climate Change** (March 2021): provides the basis for development of the national climate policy, aiming to: reduce greenhouse gas (GHG) emissions; align the regulatory framework to the EU Acquis; establish the National Council for Climate Change and creating the National GHG Inventory System. Additionally, the Law on Energy Efficiency (March 2021) established the Energy Efficiency Financing and Incentives Authority.

- The **Gender Equality Strategy** includes measures to reduce energy poverty, and ensuring equal access to energy, based on the key role women play as the primary consumers of energy in their households.

- A **Green Bond** (September 2021) for the value of EUR 1 billion was issued by the National Bank of Serbia on international markets to raise a portion of the necessary funding for the climate transition. Serbia was the first European country outside the EU to use this instrument.

- The **National Coalition for the Reduction on Energy Poverty** was established, bringing together representatives of the GoS, civil society, the private sector, local authorities, and development partners, to tackle the implications of the energy transition on the most vulnerable.

- An updated **Nationally Determined Contribution** was submitted (August 2022) to the UNFCCC Secretariat in advance of the 27th Conference of the Parties (COP27) meeting, to be held in Sharm al Sheik in November 2022.

3. PRIORITIES FOR SERBIA'S JUST TRANSITION IN THE ENERGY SECTOR



In the following paragraphs, three key areas of priority action for Serbia are presented, as follows: **1) Coal mines and coal plants phase-out; 2) Fossil fuel subsidy and pricing reform, and 3) Development of energy conservation and alternative energy sources. Cutting across these three priorities, and particularly the last two, is the need to shape more responsible behaviors, both by households and by businesses, based on common and shared responsibilities.** This shift in behavior must be

supported by advocacy, education, and knowledge-sharing at all levels.

3.1. Workers and communities in coal regions: Creating new opportunities

In Serbia, the mining sector's contribution to GDP and employment is declining. The mining sector has contracted to 0.8% of GDP, and about 1.2% of total formal employment ([SORS](#)), down from a peak of over 1.6%. A [scenario analysis carried out in 2020 by UNDP and GoS](#) shows that, overall, the economy-

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wide impact on employment of coal phase-out will be low, with overall positive effects and notably more jobs created than lost (job creation is estimated to range from 1.7% to 2.5%). Additionally, [a simulation carried out by Bank Watch and Green Tank](#), shows that Serbia would benefit from an *early* coal phase-out date, as this would enable it to receive a higher share of the dedicated regional funds.

At the local level, however, **coal mines and coal power plants are still fundamental to the economies of two regions: Kolubara and Kostolac** (see Table 1). It is estimated that, out of a total of the 29.000 EPS staff, about 16.000 would be directly affected by the coal phase-out. These are the workers in the two mines, six thermal power plants, and three combined heat and power plants. Other jobs at EPS (for example, at corporate services), could also be impacted by a reduction or phase of coal mining and of coal fired TPP (See: [UNDP](#)).

Table 1

	Kolubara	Kostolac
Coal mine workers	11593	2104
Coal power workers	2269	734
Community	147823	75334

Measures which have proved their worth in different contexts could be considered, including:

Welfare and reskilling: The gradual reduction of the workforce will need to be accompanied, at first, by internal reskilling, and, later, by compensation and retirement packages, and incentives to start new activities and by the promotion of employability of coal workers in a diversifying economy.

Economic diversification: Several initiatives should also be launched to ensure that the environment around the coal mines is restored, and that local communities have meaningful opportunities to thrive. Interventions under this priority include: rehabilitating polluted soil with **regenerative**

agriculture and reforestation; creating opportunities for **eco-tourism;** producing alternative energy (e.g. solar or wind energy) on the sites where the TPPs are currently located; repurposing and upgrading existing **local infrastructure** for new economic activities; establishing **innovation hubs**, co-creating **green and just cities**, which act on climate and provide opportunities for education and training, and spaces

A **participatory and inclusive process of consultations** must therefore be designed, and must get underway as soon as possible, to allow workers, communities and private and institutional stakeholders affected to be informed and empowered to discuss alternatives, agree on solutions, progress the implementation and monitor the realization of key component actions of the just transition. This should pave the way for the redaction and adoption of a programme for the shutdown of the plants and mines with timed objectives and milestones. This process should leverage on the capacities of local self-governments (LSGs) and the convening capacity of mayors and should be focused both on employment and on the overall well-being of local communities for inclusive and meaningful dialogue.

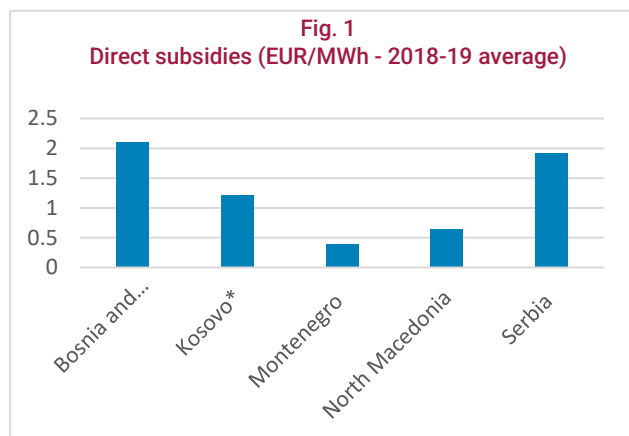
3.2 Reforming the energy price system: Protecting the energy poor

In Serbia as in most countries, the price that consumers and the industry pay for the use of fossil fuels – both directly and indirectly - is too low to cover in full their impact on human health, on the planet's climate and on ecosystems, creating incentives for continuing and expanding their use. For this reason, the success of the transition depends on reforms in two key areas: **subsidies** and **price caps**.

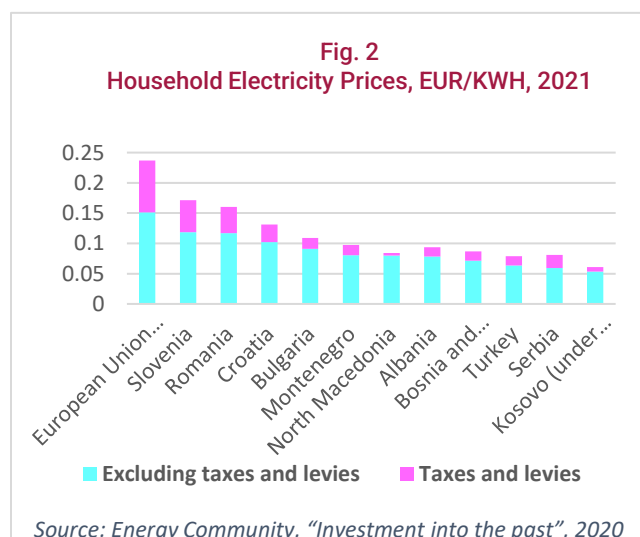
Subsidies, particularly subsidies for coal and lignite producers, heavily distort competition and make renewable energy providers less competitive. Among the countries of the Western Balkans, Serbia is second only to Bosnia-Herzegovina in the region,

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in terms of **direct subsidies per 1 MWh** produced (see Figure 1). As a total allocation, this represented EUR 41.36 million in direct payments, taking away resources that could be used to protect the most vulnerable from price hikes.



Turning now to **price caps**, currently, in Serbia, **electricity and gas prices** are **capped to a level** that is among the lowest in Europe (Fig. 2). The stated aim of price caps is controlling inflation and protecting vulnerable households. Price caps are a very blunt instrument to achieve these goals, for at least two reasons. First, price caps disproportionately benefit the wealthiest households that consume larger quantities of energy and obtain greater savings. Second, caps disincentivize fam-



² For example, a simulation of the impact of the phase out of all fossil fuel subsidies in Indonesia projected GDP gains of 0.4%–0.7% against the baseline, and a 8.3% reductions in GHG emissions. (Durand-Lasserve et al., 2015).

ilies and firms from adopting energy efficiency measures.

Progressively removing price caps and subsidies is only essential for the just transition: they can also significantly enhance productivity, as experience from other countries shows². It is then essential for Serbia to progressively **align energy prices with international market prices, and further, to a level that includes the full price of carbon, and notably its impact on planetary and human health.**

When prices are aligned with true costs, the impact on vulnerable groups needs to be managed carefully, through appropriately designed measures. In fact, it has been estimated that **an increase in energy prices if not mitigated - could bring up to 10% Serbian households into energy poverty, in addition to the existing 20%**³. For this reason, prices reforms should be accompanied by: subsidies for the insulation of residential buildings, incentives for the production and installation of energy saving technologies (e.g. heat pumps), direct monetary transfers to vulnerable households etc.

Some preliminary steps in these areas have been taken. A decree for energy-vulnerable customers to secure those households that cannot pay for electricity has been prepared, while the price of electricity for households and small customers was raised by 6.5 % on 1st of September 2022. Of course, this is still well below both international market prices and the "true" price of carbon including environmental and health externalities. Further interventions will be needed in the coming months, also in view of the evolution of global and regional energy prices. The design and implementation of these changes must be an integral part of the inclusive and comprehensive consultation process that will underpin the just transition in Serbia.

³ Energy poverty is defined as the simultaneous existence of low incomes, low energy efficiency and a high share of energy costs.

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3.3. A just approach to the uptake of renewables and energy efficiency measures

In the document “Energy Security of Serbia” the GoS set a 49.6% target for the share of renewable energy sources in gross final energy consumption by 2040, compared to 26.3% at the end of 2020. In order to replace coal-fired TPPs in the coming decades, building replacement and additional power plants that use hydro, wind and solar, as well as biomass will be critical.

As coal-fired plants currently have a combined installed capacity of 4,400 MW, Serbia would need to build 8,000-10,000 MW of wind, solar, and hydro power plants. Overall, a total of 21,000-22,000 MW of renewable capacity would need to be installed, which is estimated to cost about EUR 21 billion.

It is also key, of course, that renewables are installed by households and SMEs for example, by introducing incentives for the installation of roof solar panels and heat pumps. The role of local authorities, as co creators of living spaces that respond to the needs of all should be leveraged.

Another factor of success of the transition to a low carbon economy is to invest in energy efficiency as it allows to simultaneously reduce the energy bill for families and firms and cut pollution and GHG emissions.



The [UNDP Green Recovery Study](#) – conducted in partnership with the EU Delegation - concluded that micro, small and medium sized companies, or MSMEs, are willing to invest in more energy-efficient and environmentally friendly processes if adequately empowered through regulations that incentivize green investments, education and training on how to make businesses greener, better access to finance and clearer procedure for environmental compliance. The UN has been deploying several initiatives under the specific priority of energy efficiency and some examples are offered in Box 4.

Box 4: Some examples of UN energy-efficiency initiatives

- **Energy efficiency renovation of central government buildings (UNDP):** projected to result in a reduction in primary energy consumption in renovated buildings by about 30%, reduction in CO2 emissions by about 20%, improved working conditions, improved occupational safety and about 29% savings in operating cost for energy.

- **Successful mobilization by UNDP of more than \$40 million in private sector investments and commercial borrowing** thanks to \$2,5 million of seed grants for green climate solutions. For example, biogas power plants gained access to favorable bank loans, while companies contributing to the circular economy and/or introducing new technologies that reduce GHGs in urban areas received co-funding.

- UNDP has partnered with the Chamber of Commerce to create a **Circular Economy Hub**, as a one stop shop that will provide companies with information on how to transition to a circular business model.

Other programmes by development partners (e.g. the EBRD and the World Bank) are also being deployed resulting in additional uptake of energy saving technologies by households and the public sector.



4. CONCLUSIONS AND WAY FORWARD

The Just Transition is off to a gradual start in Serbia. Much of the regulatory framework is being put in place, financing and regional and international supportive frameworks are available, or will soon be. Now is the time to **accelerate progress**, and act in a systematic and decisive manner. The more the just transition is postponed, the higher the costs and the lower the chance of success.

This vision will allow Serbia to effectively use available technology and financing opportunities, to build a roadmap detailing legislative and financing strategies, with a focus on welfare, reskilling, the expansion of the decent job framework, economic diversification and schemes to support the most vulnerable households.

International experience shows that there are **two key factors of success** for the Just Transition (See: GIF, [Just Transition to a Green Economy, 2021](#)):

1) The first is a **structured and meaningful consultation process**. Consultations will need to be based on **transparent information**, so that all stakeholders have access to the evidence and knowledge they need to make informed decisions about their future as individuals and as a community, for present and future generations. It is also important for the process to promote a meaningful two-way dialogue, resulting in a holistic vision, and backed by the political will to implement it.

2) The second factor of success is a) **cooperation, coordination and integration** among ministries, among development partners, between the public and the private sector, with cities and LSGs, to build a whole of Government and whole of society approach to the transition. This will ensure that, beyond laws and policies, the private sector and all citizens become agents of change, as part of a platform of action that includes and works for the youth, women, and the most marginalized.

It is of key importance that a gender perspective is streamlined across all areas of public policy in the

energy sector. Enhancing gender-sensitive statistics; gender-focused analysis and women's involvement in consultative processes would allow policymakers to design appropriate interventions including: training and awareness raising on gender equality and gender sensitive institutional changes, b) as no country can succeed in isolation, **action at regional and international levels for supportive trade, investment, and financial frameworks** must continue, and must be stepped up, even as the current interlocking health, climate political and socio-economic crisis continue to unfold and finally c) **communication of the vision** is essential for further progress.

Additional Resources

At global level

- ILO **"Guidelines for a Just Transition"** (2015)
- The Paris Agreement (2015) preamble urges the Parties to the Agreement to take "into account the imperatives of a just transition of the workforce and the creation of decent work and quality jobs", a commitment reiterated in the Solidarity and Just Transition Silesia Declaration adopted at the COP 24 in Katowice, Poland and operationalized by the Think Lab on Just Transition, launched at COP26 with the ILO and the International Trade Union Confederation (ITUC).
- The **G7 Declaration "Just Transition: Make It Work"** which established a standing Employment Working Group within the G7, convening ministers on an annual basis.
- **Private sector-led initiatives** e.g: a) the World Benchmarking Alliance aiming to assess 450 companies by 2023 on their contribution to a just transition b) the Climate Action for Jobs (CA4J) initiative operated by the Global Compact c) the United Nations Global Compact Think Lab on Just Transition – which recently published a Business Brief.

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At regional level

- The [Sofia Declaration on the Green Agenda for the Western Balkans](#) and its accompanying [action plan](#), which set out:

-the Action Programme for Coal Phase-out (APCP) to be developed by the end of 2024, by the Decarbonisation Committee (DcC). The Committee will have a large stakeholder basis (Governments, local authorities, business, unions, NGOs etc). The Plan will: a) be fully aligned with National Energy and Climate Plans b) aim to prevent and alleviate potential negative impacts based on social, energy and economic aspects of decarbonisation and c) identify opportunities for resolving the conflict between energy security, climate objectives and social elements.

- Donors Coordination Meeting: Annual Donor Coordinator Meetings to be organized by RCC and tasked to coordinate the process of ensuring a just transition and a socially balanced development, by enabling identification of gaps and priorities, catering for a permanent dialogue on financial needs and possibilities and increasing effectiveness in capacities of the Western Balkan economies to

absorb available financial and technical support. Cooperation and dialogue among members of parliaments as well as the role of environmental committees should be explored and strengthened.

- Involvement of the business community in a way that maximizes inclusiveness with a focus on opportunities for female-led microbusinesses and MSMEs.

- Involvement of Roma as an important part of the waste management system and a key factor of success in the implementation of the Sofia Declaration.

- The [EU Initiative for coal regions in transition in the Western Balkans and Ukraine](#) which foresees knowledge exchange, peer-to-peer learning visits, technical assistance, access to a global learning academy for coal regions, and financial assistance for transition projects. This mirrors the [Just Transition Mechanism](#) aiming to reshape the economy of coal mining regions within the EU.

- The [Mayors beyond Coal](#) coalition, bringing together over 60 coal-dependent regions in Europe for a just transition.

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