

SUSTAINABLE URBAN ENERGY PLANNING IN SOUTHEAST EUROPE (SEE)

Infographics

compiled for the
Regional Virtual Dialogue Event
17-21 May 2021



Partners of Connective Cities



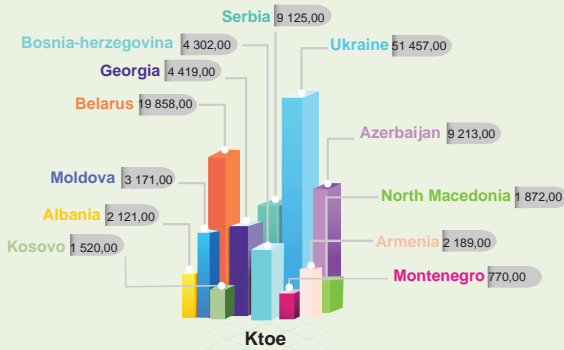
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Final Energy Consumption rates of Southeast Europe (SEE) Region

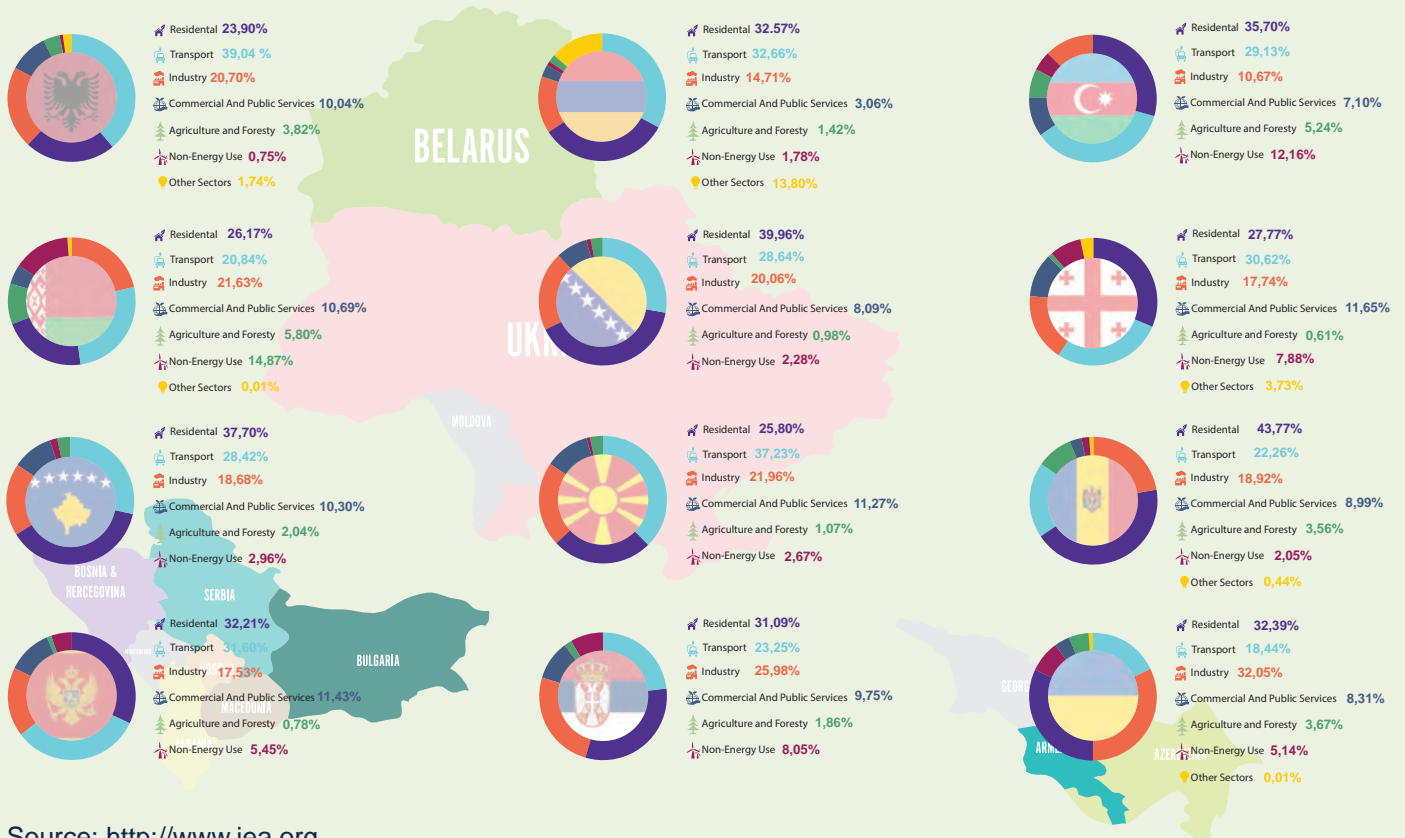
The region's total final energy consumption (TFEC) was around 110,017 Ktoe in 2018. Almost, half of that total final energy consumption comes on Ukraine – 51,457 Ktoe, followed by Belarus and Azerbaijan, respectively 19,858 and 9,213 Ktoe. The lowest being Montenegro – 770.

Total Final Energy Consumption (TFEC) in 2018



Source: <http://www.iea.org>

Total Energy Consumption (TFEC) by Countries and Sectors in 2018



Source: <http://www.iea.org>

The residential sector is the largest consumer in most of the countries, with an average of 32% share of TFEC. Casing highest share of consumption in Moldova with 44% of country's TFEC and lowest 24% in Albania.

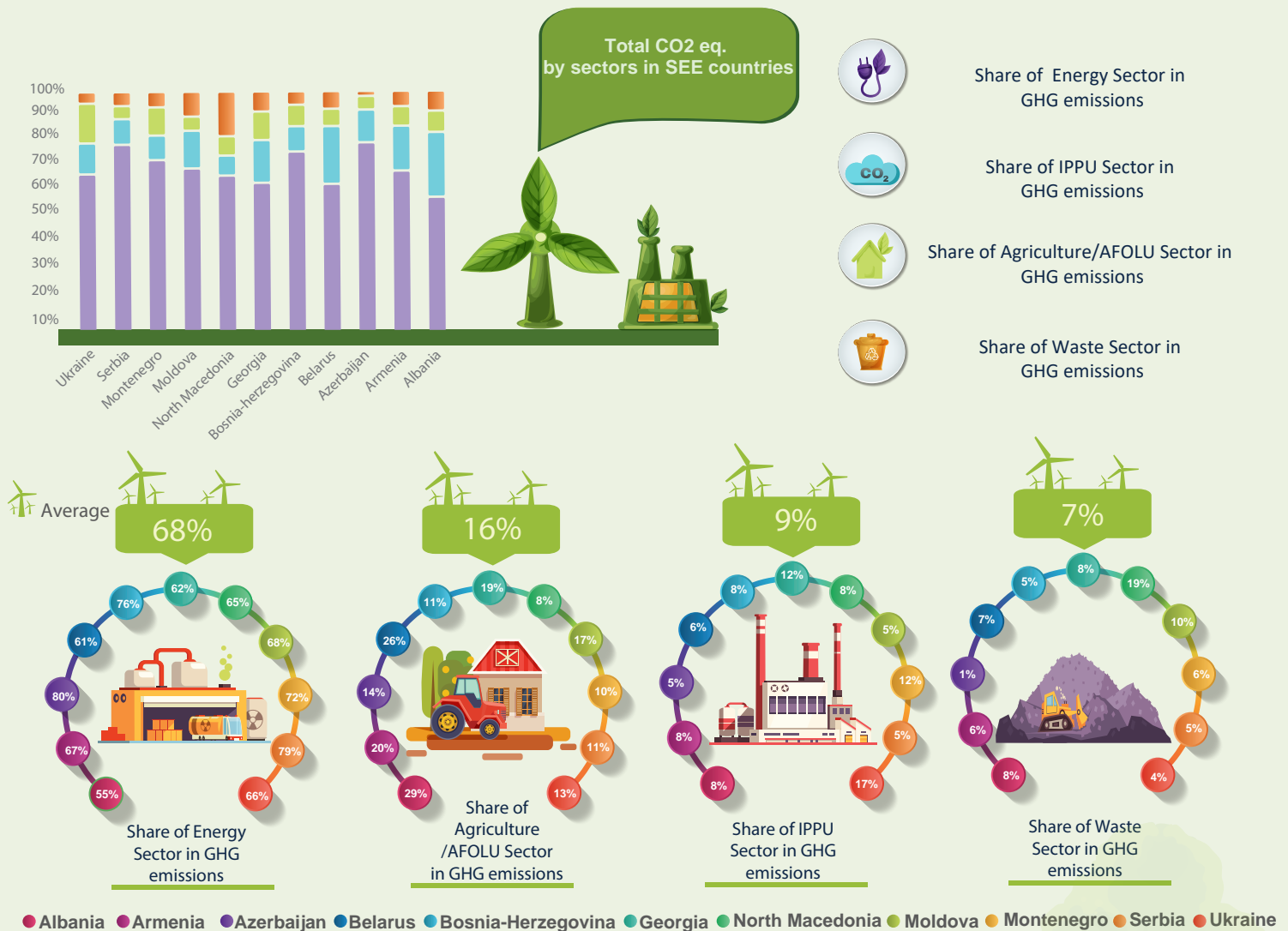
Following residential comes transport sector with regions second highest average consumption rate of 29% share of TFEC. Albanian transport sector accounts for 39% of countries TFEC, making it highest in the SEE region, while Ukrainian transport sector account for 18% of countries TFEC, being lowest in the region.

Greenhouse gas emission rates in Southeast Europe (SEE) Region

Analysis of GHG emissions by sectors in SEE countries shows that the major contributor to national GHG emissions in Southeast Europe countries is energy sector, varying from its highest 80% in Azerbaijan to lowest 55% in Albania. On average share of energy sector in GHG emissions in SEE region is 68%.

Other sectors contributing to GHG emissions:

1. Agriculture, Forestry, and Other Land Use – AFOLU sector, varying from highest 29% in Albania to lowest 8% in North Macedonia.
2. Industrial processes and product use (IPPU) sector, varying from highest 17% in Ukraine to lowest 5% jointly in Azerbaijan and Moldova.
3. Waste sector, varying from highest 19% in North Macedonia to lowest 1% in Azerbaijan.



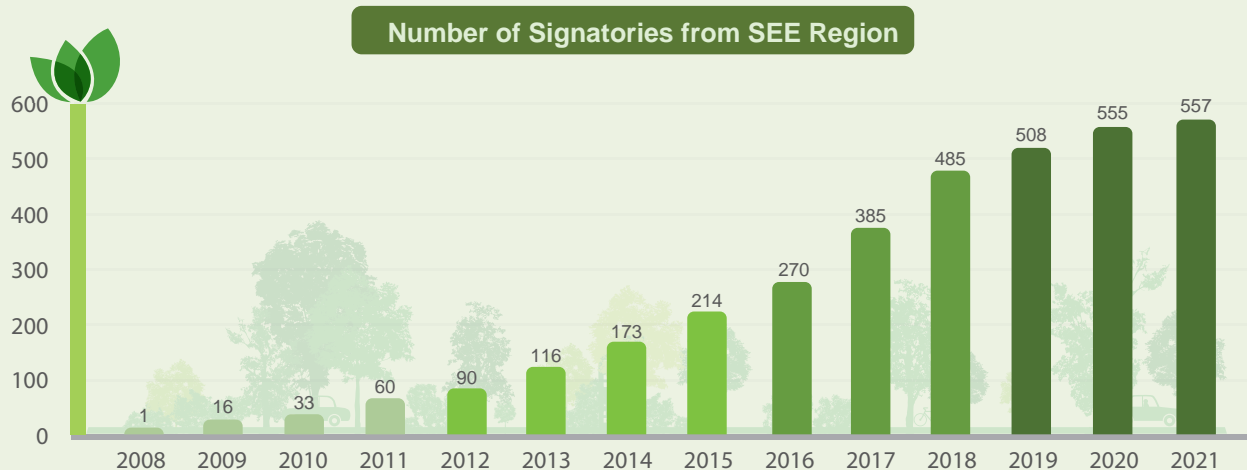
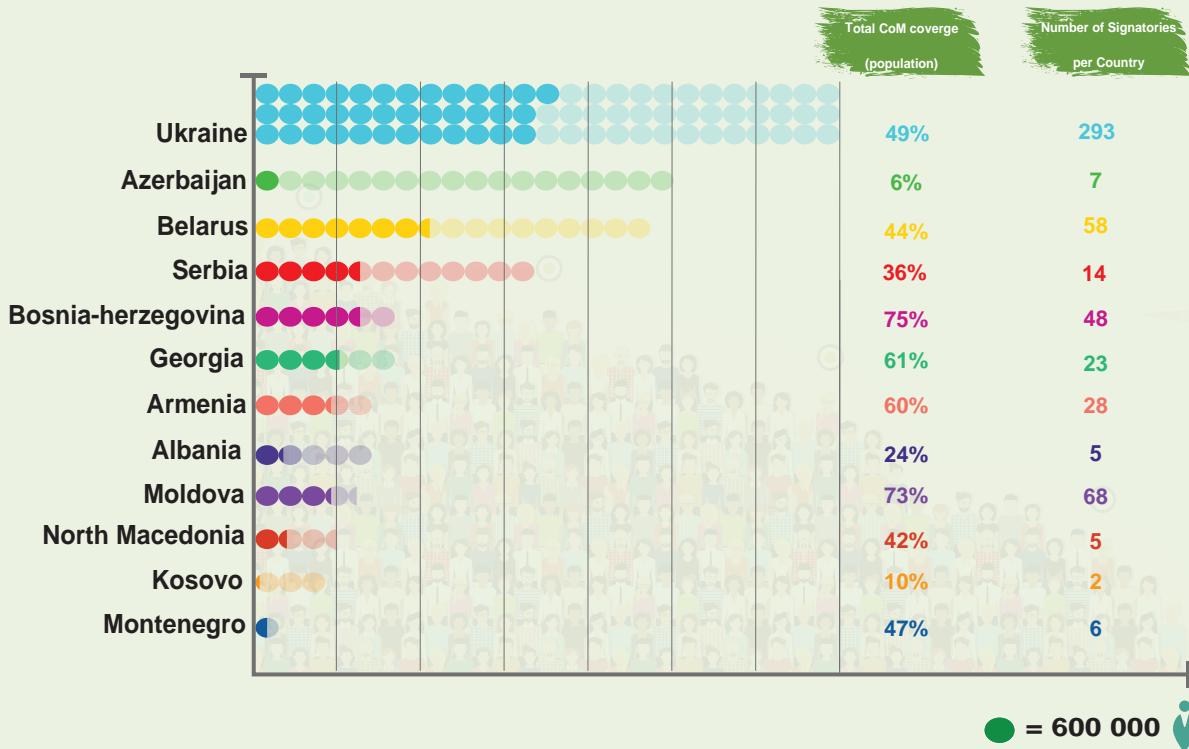
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Signatories of Covenant of mayors from Southeast Europe (SEE) Region

In 2008 EU launched its landmark local initiative - The Covenant of Mayors was launched with the ambition to gather local governments voluntarily committed to achieving and exceeding the EU climate and energy targets.

As of 2021, from Southeast Europe (SEE) region 557 cities and municipalities have joined this landmark initiative, with total of 39,458,531 inhabitants, representing 43% of total population of SEE region countries, with varying share per country as seen on a chart below.



By joining the Covenant of Mayors initiative, cities and municipalities endorse a shared vision for 2050: accelerating the decarbonisation of their territories, strengthening their capacity to adapt to unavoidable climate change impacts, and allowing their citizens to access secure, sustainable, and affordable energy.



General Challenges of SEE Region in Energy Efficiency and Renewable Energy

Southeast Europe (SEE) countries feature commonalities and differences, however some main challenges and barriers can be identified, which are generalizable to all considered countries with respect to legal, administrative, financial and institutional aspects cities and municipalities face in trying to increase energy efficiency and increase share of renewable energy sources as well as attract financing for those measures.



Legal

- Time-consuming legal process for receiving grant financing by municipalities
- Hurdles in the design and solution for energy efficiency and green procurements created by unclear state procurement procedures
- Lack of legislative regulation for energy performance contracting, green financing and green procurement and for Public-Private Partnership
- In some SEE countries absence of national norms and standards on energy efficiency
- No clear supporting national policies and specific programs to support investments in municipal sustainable climate change and sustainable energy measures

Administrative

- Local leaders not understanding the long-term vision of EE and RE and its' economic importance
- appropriate local statistics and data on energy not sufficient to carry out further R&D
- Lack of cooperation among authorities of different levels involved in climate and energy policy
- Local authorities not able to attract and retain qualified personnel capable of formulating, raising funds, and ensuring the successful implementation of complex infrastructural projects in the realm of sustainable energy

Institutional

- Limited decision-making autonomy of local authorities regarding EE and RE
- track record or creditworthiness of cities/municipalities not in place.
- Local authorities not fully aware of EE opportunities and benefits, as well as and limited capacities to identify and develop bankable project proposals for sustainable energy investments
- Limited capacities of smaller municipalities to design and engage in complex EE projects
- Low "loan absorption capacity" of small communities
- Focus on projects with short paybacks
- Limited market readiness of EE service vendors
- Lack of coordination mechanisms between national and local governments

Financial

- Limited local public finances and little involvement of private sector
- Limited access to funding sources and commercial financing (limited creditworthiness and adequate collateral)
- Lack of fiscal and tax incentives, as well as innovative financial instruments, other than grants
- In some SEE countries, subsidies for energy prices for the population make EE project financially unattractive for investors
- International financial institutions target more significant projects and localities

¹ Source: Adopted from country specific reports on National Roadmap for Removing the Barriers and Fostering the Drivers of SEAP/SECAP Implementation and other analytical reports as well as expert judgment and assessment

