

REN21 UNECE Renewable Energy Status Report



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UNECE

United Nations Economic Commission for Europe

UNECE Platform

- The United Nations Economic Commission for Europe (UNECE) is one of five **regional commissions of the United Nations**
- Brings together **56 countries** located in the European Union, non-EU Western and Eastern Europe, South-East Europe and Commonwealth of Independent States (CIS) and North America
- Major aim is **promoting pan-European economic integration**

UNECE Group of Experts on Renewable Energy (GERE)

GERE
direction
of work

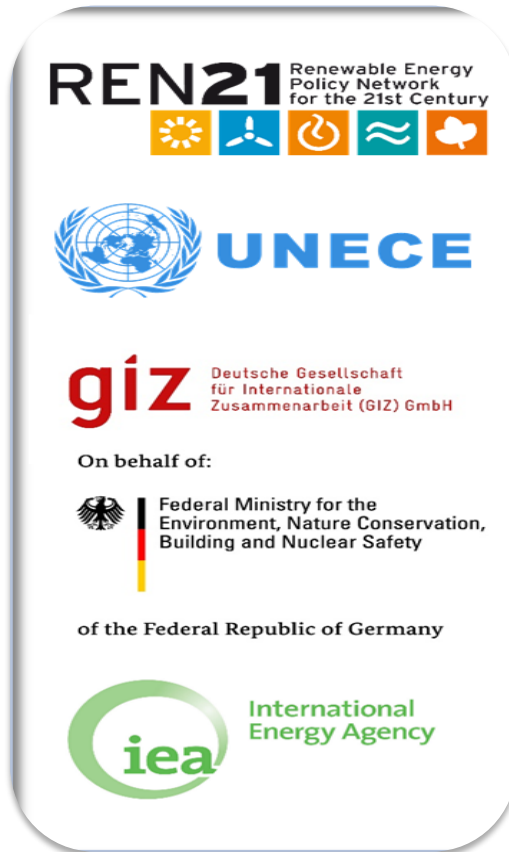
- Ensure reliable data and allow tracking progress in the entire UNECE Region
- Facilitate exchange of know-how, best practices and lessons learned
- Promote consideration of RE within future energy systems

UNECE Group of Experts on Renewable Energy (GERE)

GERE in Global Processes

- **SE4ALL** - one of the 3 objectives: Doubling the share of renewable energy in the global energy mix
- **SDG 7 on Energy**: Affordable, reliable, sustainable, and modern energy for all
- **Hammamet Declaration** of the Executive Secretaries of the 5 UN Regional Commissions and Statement of Common Action to render the declaration operational
- **GERE Work Plan 2016-2017**

REN21 UNECE Renewable Energy Status Report



- Status of RE in selected 17 UNECE countries
- Building on existing process: UNECE Group of Experts on Renewable Energy (GERE)
- Established REN21 global data: collection from formal and informal sources
- Objective: reliable data baseline
- Strong Involvement of key stakeholders

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Focus on Energy Community Countries



Energy overview of the selected countries in the UNECE region

	Energy imports, net (% of energy use) 2011	Energy subsidies as share of GDP (% 2015)	Energy use per capita (MJ/capita, 2011)	Electrification rate (% of population) 2012
Albania	34%	1.9%	32,253	100%
Armenia	67%	4.3%	38,362	100%
Azerbaijan	-377%	6.3%	57,332	100%
Belarus	86%	7.0%	129,695	100%
Bosnia and Herzegovina	35%	37.0%	77,268	100%
Georgia	68%	5.2%	33,099	100%
Kazakhstan	-107%	11.0%	195,565	100%
Kyrgyzstan	51%	26.4%	25,133	100%
FYR of Macedonia	44%	18.7%	61,833	100%
Moldova	96%	5.6%	39,088	100%
Montenegro	36%	16.7%	76,013	100%
Russian Federation	-78%	16.0%	216,281	100%
Serbia	31%	34.7%	93,674	100%
Tajikistan	30%	7.1%	11,691	100%
Turkmenistan	-164%	23.2%	202,591	100%
Ukraine	32%	60.7%	115,929	100%
Uzbekistan	-21%	26.3%	67,389	100%

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Focus on Energy Community Countries

Renewable energy share of total primary energy supply (TPES) in the UNECE region, 2012



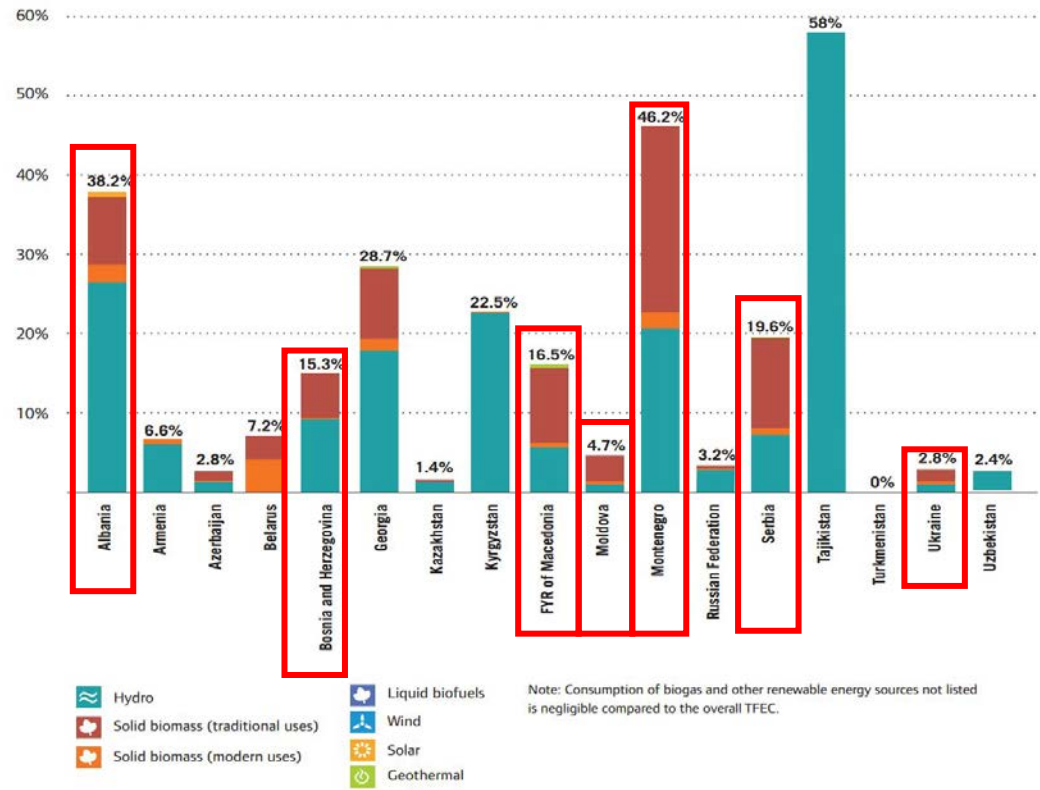
	Total energy	Non-renewable energy	Renewable energy	Share of renewable energy
	(thousand tonnes of oil equivalent)			(%)
Albania	2,075	1,451	624	30%
Armenia	2,971	2,762	209	7%
Azerbaijan	13,692	13,437	255	2%
Belarus	30,499	28,882	1,617	5%
Bosnia and Herzegovina	6,670	6,128	542	8%
Georgia	3,706	2,767	939	25%
Kazakhstan	74,853	74,137	716	1%
Kyrgyzstan	4,132	2,909	1,223	30%
FYR of Macedonia	2,968	2,677	291	10%
Moldova	3,276	3,167	109	3%
Montenegro	1,062	754	308	29%
Russian Federation	756,593	734,483	22,110	3%
Serbia	14,462	12,635	1,827	13%
Tajikistan	2,267	814	1,453	64%
Turkmenistan	25,570	25,570	202,591	0%
Ukraine	122,661	120,012	2,649	2%
UZBEKISTAN	48,284	47,316	968	2%

Share of Renewable Energy in Total Final Energy Consumption, 2012

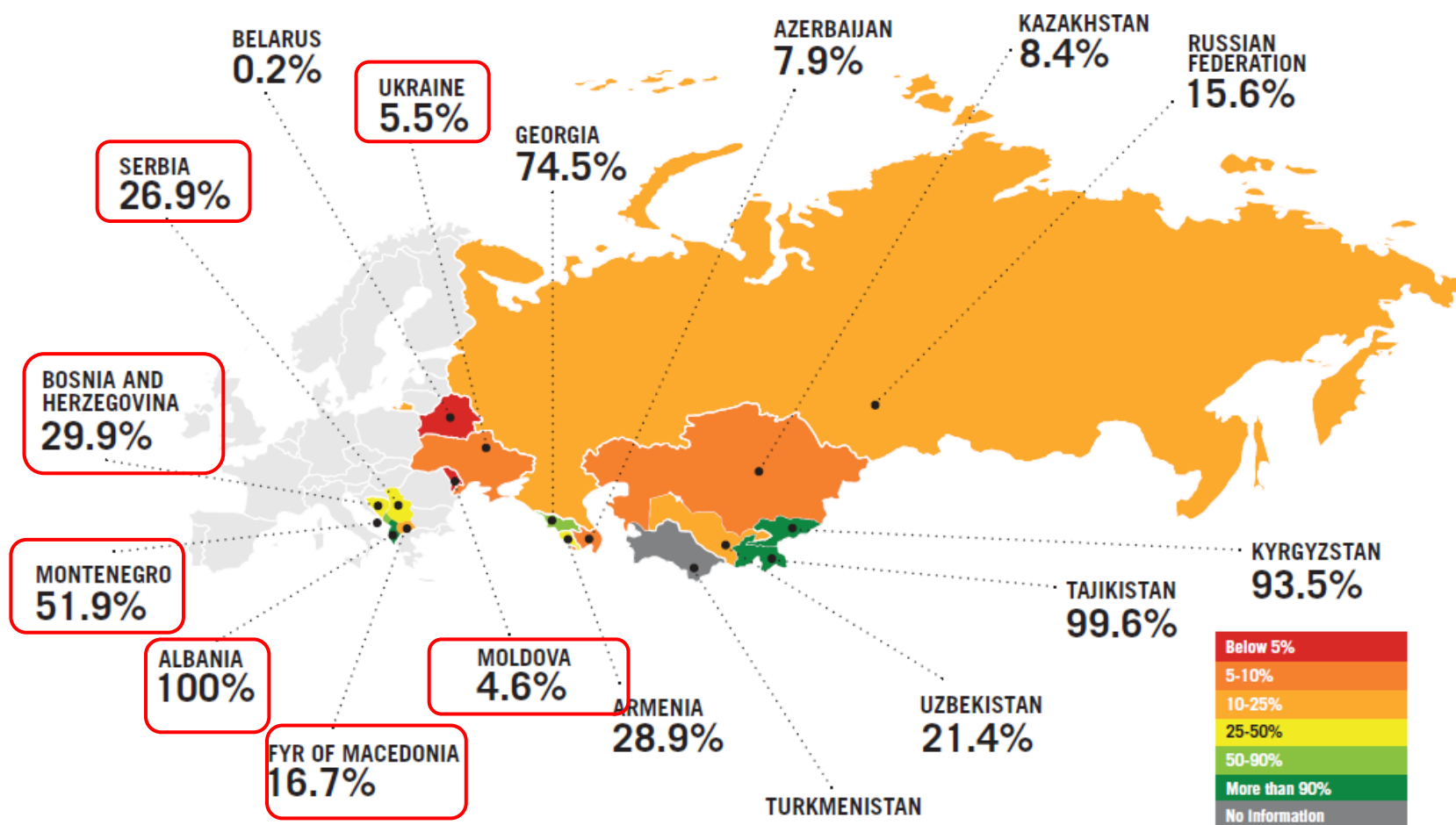


- Numbers driven by biomass and hydro

- Negligible Energy consumption from other renewables



Share of Hydro Power in total power generation, 2012



Renewable Power Installed Capacity, 2014

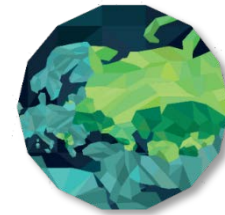
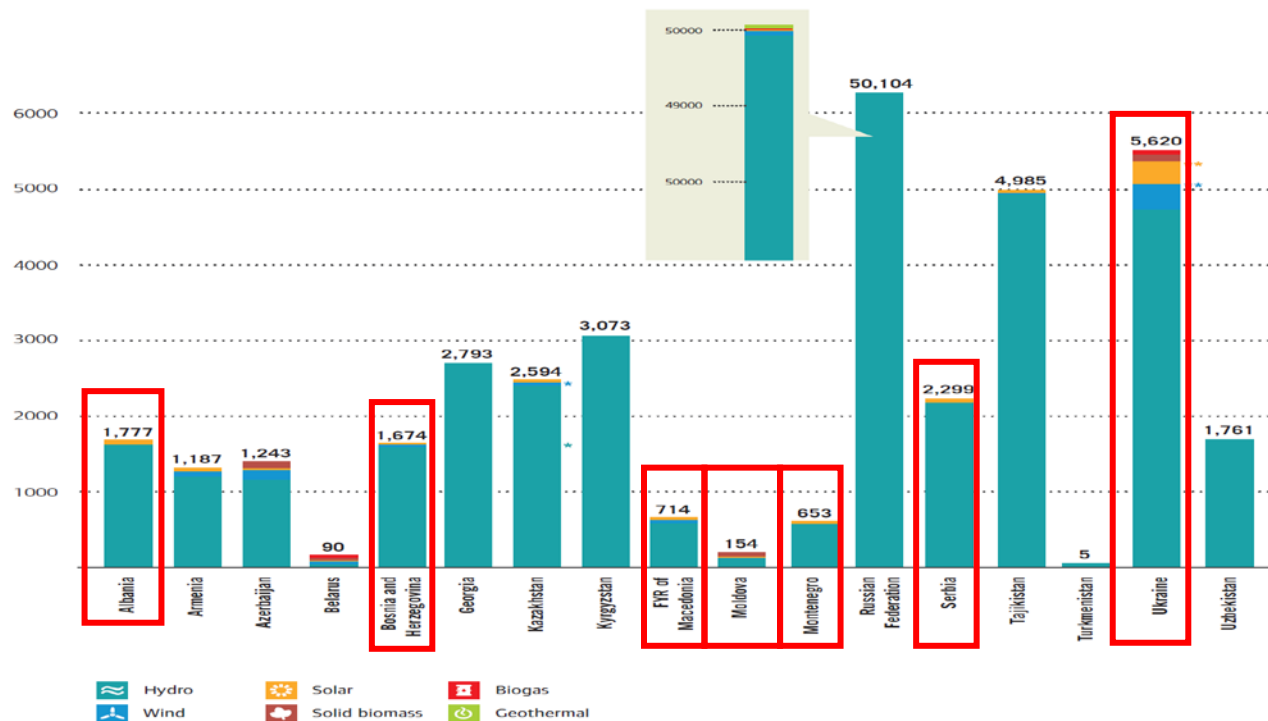


Figure 5 | Renewable power installed capacity, by country, 2014



Renewable Energy for Power, Installed Capacity: Key Findings



Big variations from country
to country

- Hydropower is backbone

- Other RE technologies are
nascent

- Smaller developments are
beginning to pick up



Overview of RE targets in Energy Community Countries

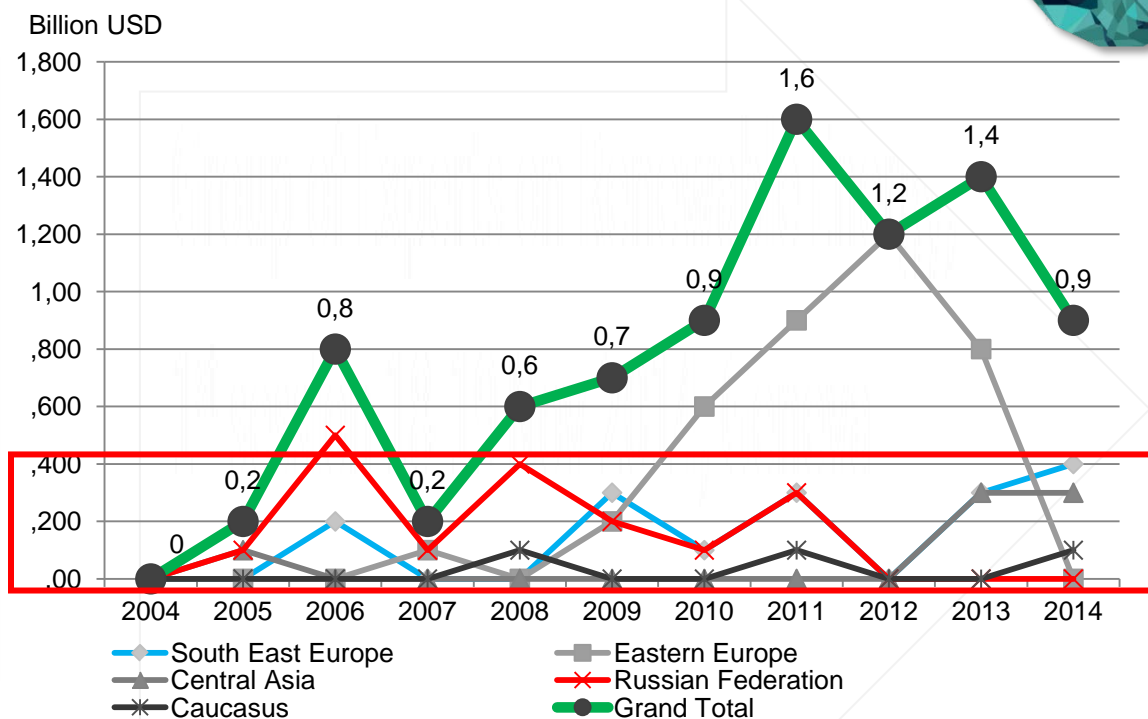
COUNTRY	SECTOR/TECHNOLOGY	TARGET
Albania	Energy	38% of gross final energy consumption (draft action plan)
	Biofuels	10% of transport fuel consumption by 2020
Bosnia and Herzegovina	Energy	40% of gross final energy consumption by 2020
FYR of Macedonia	Energy	28% of gross final energy consumption in 2020
	Electricity	9% by 2020
	Heating and cooling	11% by 2020
	Transport	2% by 2020
Moldova	Energy	20% of the energy mix by 2020
	Electricity	10% of final gross consumption by 2020
	Heating and cooling	27% of gross final energy consumption by 2020
	Biofuels	10% of transport fuel consumption by 2020
Montenegro	Energy	33% of gross final consumption in 2020
	Electricity	51.4% by 2020
	Heating and cooling	38.2% by 2020
	Transport	10.2% by 2020
Serbia	Energy	27% of gross final energy consumption in 2020
	Electricity	37% of gross final energy consumption in 2020
	Heating and cooling	30% share of gross final energy consumption in 2020
	Transport	10% of gross final energy consumption in 2020
Ukraine	Energy	11% of the primary energy balance by 2020
	Electricity	11% of generation by 2020
	Heating and cooling	12.4% of gross final energy consumption for heating and cooling by 2020
	Transport	10% (including electricity in transport) by 2020

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Renewable Energy Investment Overview

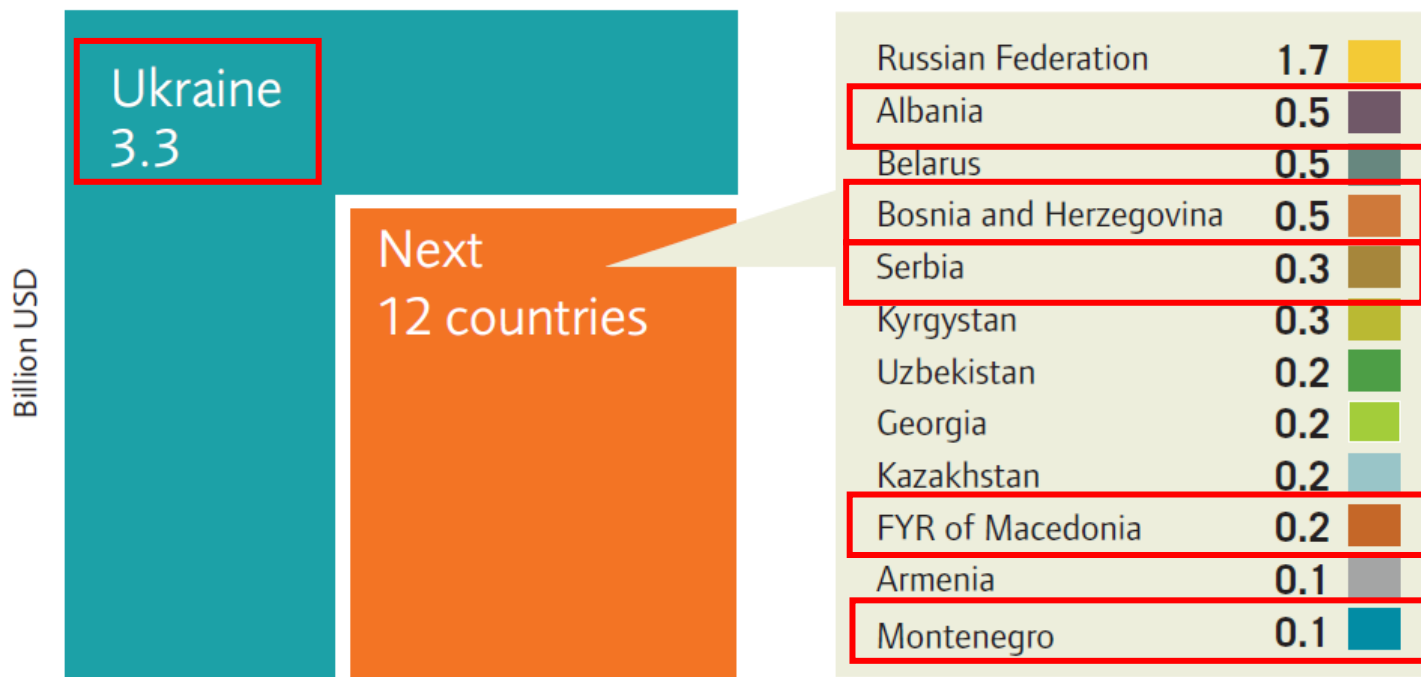


Renewable Energy Investment Overview 2004-2014



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Renewable Energy Investment in 2004-2014. billion USD



Key Findings on the 17 considered countries



Decline in Renewable Energy Investment

- shows a slowdown in RE investment flow
- over 300 million inhabitants in the selected 17 UNECE countries
- RE investments covered only 0.5% or USD 0.9 billion of global investment activity in 2014.

Renewable Energy Within Future Energy Systems



How to Boost Renewable Energy Investment

- Enabling Policy Frameworks
- Overcome bottlenecks and barriers
- Addressing RE Potential and Technological Development
- Promoting Innovative Financing
- RE Deployment within Future Energy Systems

Thank you!

[http://www.unece.org/
energy/se/gere.html](http://www.unece.org/energy/se/gere.html)

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