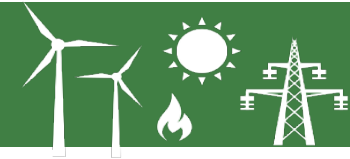


Instruments to increase share of renewable energy in energy mix



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Gianluca Sambucini

**Sustainable Energy Division
UNECE**

Workshop on strengthening national capacities in applying sustainable energy policy and practices, based on the recommendations of the environmental performance reviews

30 June 2021



Getting Renewables Right

Sustainable Energy; Climate
Change Mitigation; Circular
Economy; Nexus
perspective; Green Jobs;
Energy Access;



The UNECE Group of Experts on Renewable Energy (GERE)

The GERE started in 2014 as a subsidiary body to the Committee on Sustainable Energy and aims to:

- Help the understanding of RE status and tracking its progress in the UNECE region
- Facilitate the exchange of best practices
- Consider the role of renewable energy within the context of future energy systems
- Promote instruments for assessing the potential of renewable energy resources and supporting possible synergies between renewable energy and fossil fuels in the energy production
- Identify needs, key bottlenecks and opportunities for market conditions and possible investment promotion



Key outputs:

- REN21 UNECE Renewable Energy Status Report (2015 & 2017, next 2020)
- Best Practices and Lessons Learned
- Hard Talks: Georgia (2016), Ukraine (2016), Azerbaijan (2017), Kazakhstan (2018) Bosnia-Herzegovina (2018), Serbia (2019); Forthcoming: Albania (July 2021); Serbia (2021); Georgia (2021); Kazakhstan (2021)
- Investment Matchmaking events in Baku (2016) and Astana (2017) at the 7th and 8th International Forum on Energy for Sustainable Development.



The UNECE Renewable Energy Status Report (2017; 2017; 2021-22)

- Detailed look at the status of renewable energy in 17 selected countries of the UNECE region
- Part of the initiatives of the UNECE Group of Experts on Renewable Energy (GERE) – building on existing process
- Utilization of the established REN21 global data collection process from formal and informal sources
- Objective to obtain a reliable data baseline for increased investment activity
- Strong Involvement of governments, international organisations (IEA, EBRD, European Commission, World Bank, UNDP, etc.) and civil society during data collection and review



Gefördert durch:



aufgrund eines Beschlusses
des Deutschen Bundestages

Global Investment in Renewable Energy



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Global investment in renewables was USD 304 billion in 2010-2020

- For the sixth consecutive year, renewable energy capacity investments by developing and emerging countries (excluding hydropower projects larger than 50 megawatts, MW) exceeded those of developed countries, although by a smaller margin than in previous years, accounting for 50.5% of the 2020 total.
- Investments for the year rose 13% in developed countries and fell 7% in developing and emerging countries.
- The drop in developing countries was due mainly to declining capacity investment in China (down 12%), India (down 36%) and developing countries in the Americas (down 33%).⁸ Investment also fell in Sub-Saharan Africa (down 14%), further diminishing the low investment in new renewable capacity in the region (USD 2.8 billion).
- In contrast, investment growth continued for the seventh consecutive year in developing countries outside of those areas, including in Brazil (up 23%), the Middle East and North Africa (up 22%), and Asia and Oceania (up 13%).



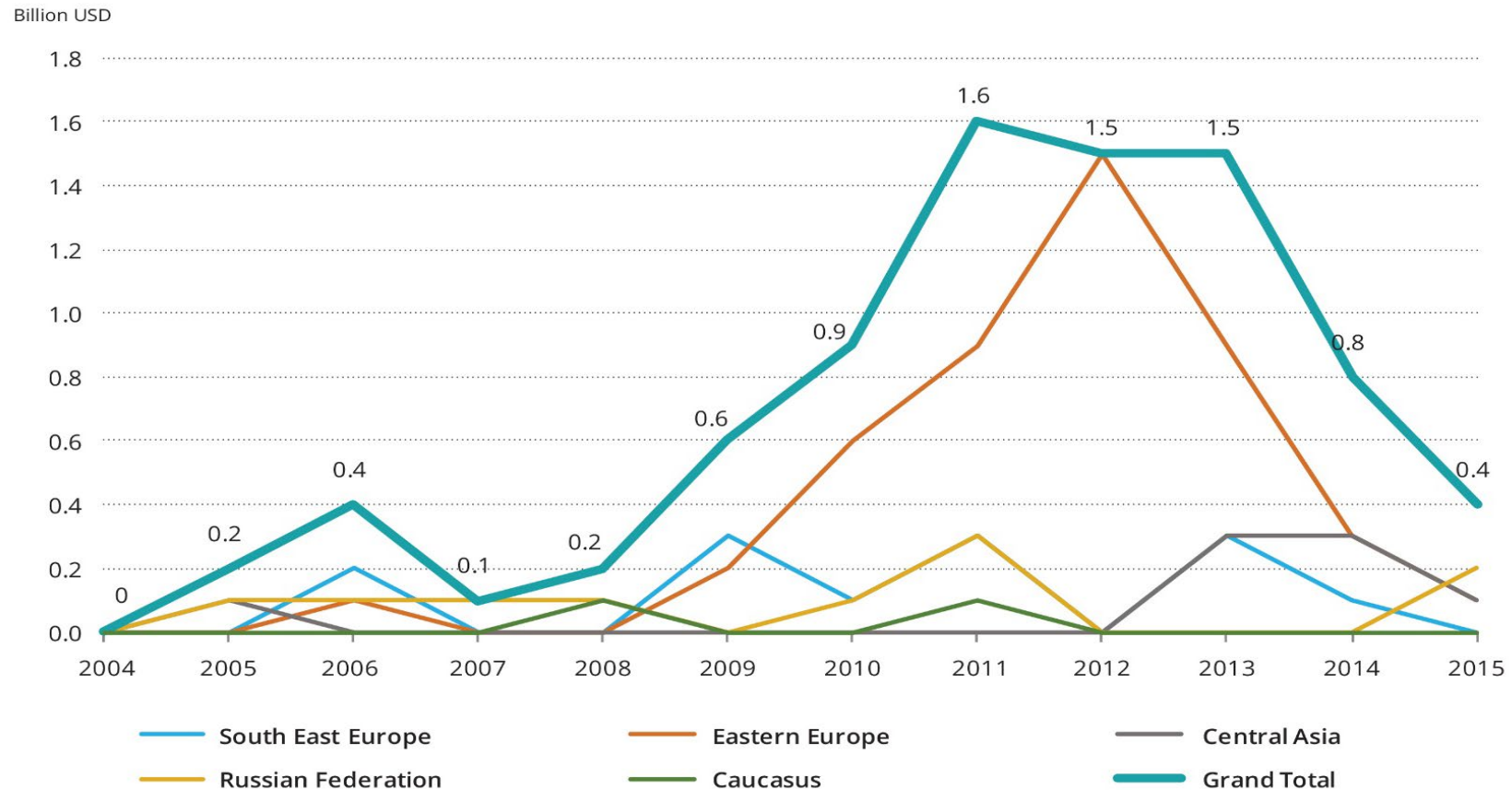
Investment flows in UNECE (17)

Renewable Energy Investment Overview, 2004 - 2014



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- The covered countries only represent 0.2 % of new RE investment in worldwide
- Investment attraction remains an issue for RE development in the region





RE Policy and Target Landscape – UNECE (17)

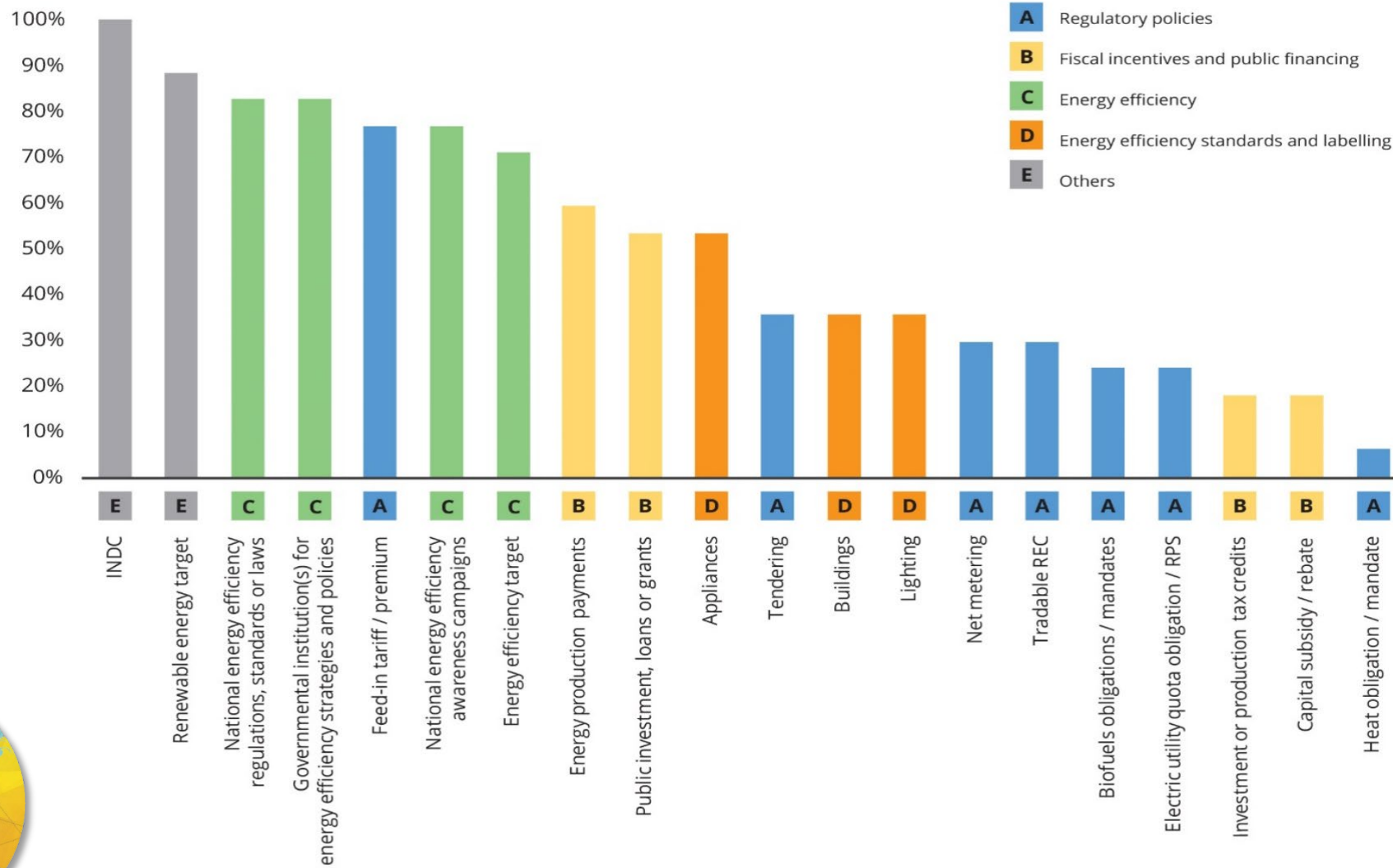
- Positive progress has been made
- RE and Carbon emission targets have been initiated and are increasingly accompanied by regulatory policies
- Still significant room for improvement
- Only a few examples of regional mandatory RE targets
- Still apparent that non-economic barriers hinder unfolding of full policy potential

	INDC	Renewable energy target	Regulatory policies						Fiscal incentives and public financing					
			Biofuels obligation / mandate	Electric utility quota obligation / RPS	Feed-in tariff / premium payment	Heat obligation / mandate	Net metering	Tendering	Tradable REC	Capital subsidy / rebate	Energy production payment	Investment or production tax credits	Public investment, loans or grants	Reduction in sales, energy, CO ₂ , VAT or other taxes
Albania	x	✓	✓	✓	✓	x	x	✓	✓	x	✓	x	x	x
Armenia	x	✓	x	x	✓	x	✓	x	x	x	✓	x	✓	x
Azerbaijan	x	✓	x	x	✓	x	x	x	x	x	✓	x	✓	x
Belarus	x	✓	✓	✓	✓	x	✓	x	✓	x	✓	x	x	x
Bosnia and Herzegovina	x	✓	✓	x	✓	x	x	✓	x	✓	x	x	x	x
Georgia	x	x	x	x	✓	x	✓	✓	x	x	✓	x	✓	x
Kazakhstan	x	✓	x	x	✓	x	x	✓	x	x	x	x	✓	x
Kyrgyzstan	x	✓	x	x	✓	x	x	x	✓	x	✓	✓	✓	✓
FYR of Macedonia	x	✓	x	x	✓	x	x	x	x	x	x	x	x	x
Moldova	x	✓	x	x	✓	x	x	x	x	x	x	x	✓	✓
Montenegro	x	✓	x	✓	✓	✓	✓	✓	x	✓	x	✓	✓	x
Russian Federation	x	✓	x	✓	x	x	x	✓	✓	✓	✓	x	x	x
Serbia	x	✓	x	x	✓	x	x	x	x	x	x	x	✓	x
Tajikistan	x	✓	x	x	x	x	x	x	✓	x	✓	✓	✓	x
Turkmenistan	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Ukraine	x	✓	x	x	✓	x	✓	x	x	x	✓	✓	x	✓
Uzbekistan	x	✓	x	x	x	x	x	x	x	x	x	x	x	x

RE Policy and Target Landscape – UNECE (17) - II



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The Group of Experts on Renewable Energy (GERE):

A multi-stakeholder platform for collaboration and information exchange

- Tracking progress, exchange of experiences and good practices, cross-cutting cooperation, collaboration to assess and exploit untapped potential, matchmaking and support for RE investments are among the key GERE activities
- In selected countries, UNECE Hard Talks bring together major stakeholders from public and private sector to identify barriers for RE uptake and to recommend solutions to boost investments
- In 2016-2019, Hard Talks in Azerbaijan, Georgia, Kazakhstan, Ukraine, Bosnia and Herzegovina, Montenegro, and Serbia led to fruitful results, addressing countries difficulties in RE deployment





Hard Talks: An Innovative Policy Dialogue Tool For Unblocking Renewable Energy Barriers to Investment

- A uniquely formatted **multi-stakeholder** dialogue:
 - Involved Ministries – Energy, Economy, Finance, etc.
 - Other key players – RES Agencies, Regulators, Network operators
 - Private sector –project developers, industry associations
 - Parliament, NGOs, media (2nd day)
 - Financial actors – IFIs, development banks and commercial lenders
 - International community – Donors, Consulates, etc.
- Adapted to the specifications and requirements of the host country;
- Discussion guided by a **practical “problem/solution” Discussion Paper**;
- **Neutral international facilitators** for the dialogue
- Involves two days – **one expert day** following by a **half day for high-level decision-makers** to deliver key messages from experts
- **Conclusion:** Discussion Paper is reformatted into a **“Recommendation Paper”** prioritizing the next steps which is sent to all participants and high-level decision-makers for further action



Study on Renewable Energy Financing and Investment in ECE Countries in the four countries (2021):

	Total primary energy supply [ktoe]	Final energy consumption [ktoe]	Baseline Year (2009)	Share of Energy from Renewable Sources (2019)	Target share of energy from RES in 2020	Total Capacities of Renewable Energy [MW] (2019)
Albania	2,340.0	2,067.1	31%	36.7% (Eurostat)	38%	2,591
Georgia	5,101.0	4,176.4	n.a.	28% (Geostat)	n.a.	3,337
Kazakhstan	73,148.0	45,510.0	n.a.	2.3% (stat.gov.kz)	3%	1,050
Serbia	15,277.9	8,361.0	21%	21.4% (Eurostat)	27%	3,491



Study on Renewable Energy Financing and Investment in ECE Countries in the four countries (2021)

Policy landscape – all countries:

- Developed its primary legislation related to renewable energy sources and is slowly adopting the necessary secondary legislation (detailing legal, regulatory and financial mechanisms and technical rules) that will ensure the full implementation of renewable energy sources;
- Submitted their first Nationally Determined Contributions (NDC) as a step towards officially joining the Paris Agreement;
- Defined official targets for renewable energy in Albania, Serbia and Kazakhstan. Renewable energy targets for 2020 representing the participation of renewables in the energy mix were defined in Albania (38%) and in Serbia (27%). In Kazakhstan (3%). Georgia, no obligation but has defined the target of having the greenhouse gas emissions decreased at 35% as a comparison to 1990;



Study on Renewable Energy Financing and Investment in ECE Countries in the four countries (2021):

Key bottlenecks:

- Licensing and permitting procedures need to be simplified and streamlined. There is no single administrative body established in any of the four selected countries
- Policy support for renewable heating and cooling continues to lag support in the power sector. None of the four selected countries had an obligation for a percentage of share of renewable energy in the heating and cooling sector by 2020.
- Policies to stimulate renewable energy in the transport sector are still missing and the support remains far below other sectors. Albania and Serbia have the renewable energy target for the transport sector.



Thank you!

Gianluca Sambucini
Secretary of the Group of Experts
on Renewable Energy
UNECE

