



# Sustainable Energy Division

## Group of Experts on Renewable Energy (GERE)



ENERGY



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Rome, 24 February 2023

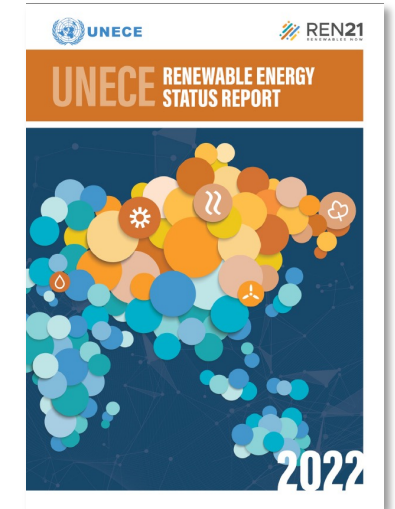
# REN21 UNECE Renewable Energy Status Report 2022

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The Report provides a comprehensive overview of the current status of renewable energy and energy efficiency trends in the following 17 selected countries: Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Montenegro, North Macedonia, Russian Federation, Serbia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan, plus Kosovo

- Regional Overview
- Policy Landscape
- Market and Industry Overview
- Distributed Renewables for Energy Access
- Energy Efficiency
- Investment Flows
- Current Thinking about the Future of Renewables



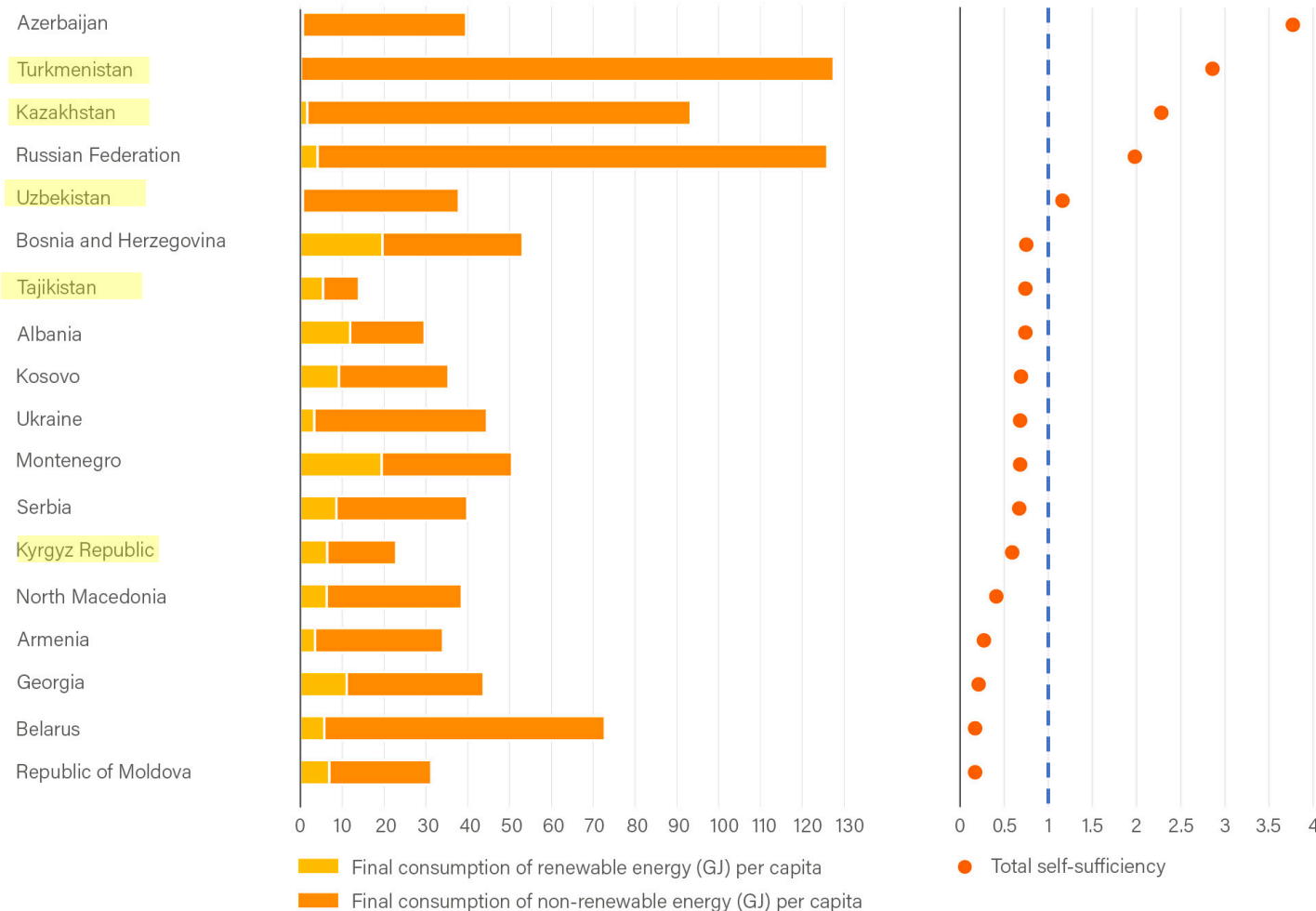
# Energy mix and import-dependency

## Energy security, sovereignty and rising costs

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Energy Self-Sufficiency and Final Consumption of Renewable and Non-Renewable Energy in the Focus Countries, 2019



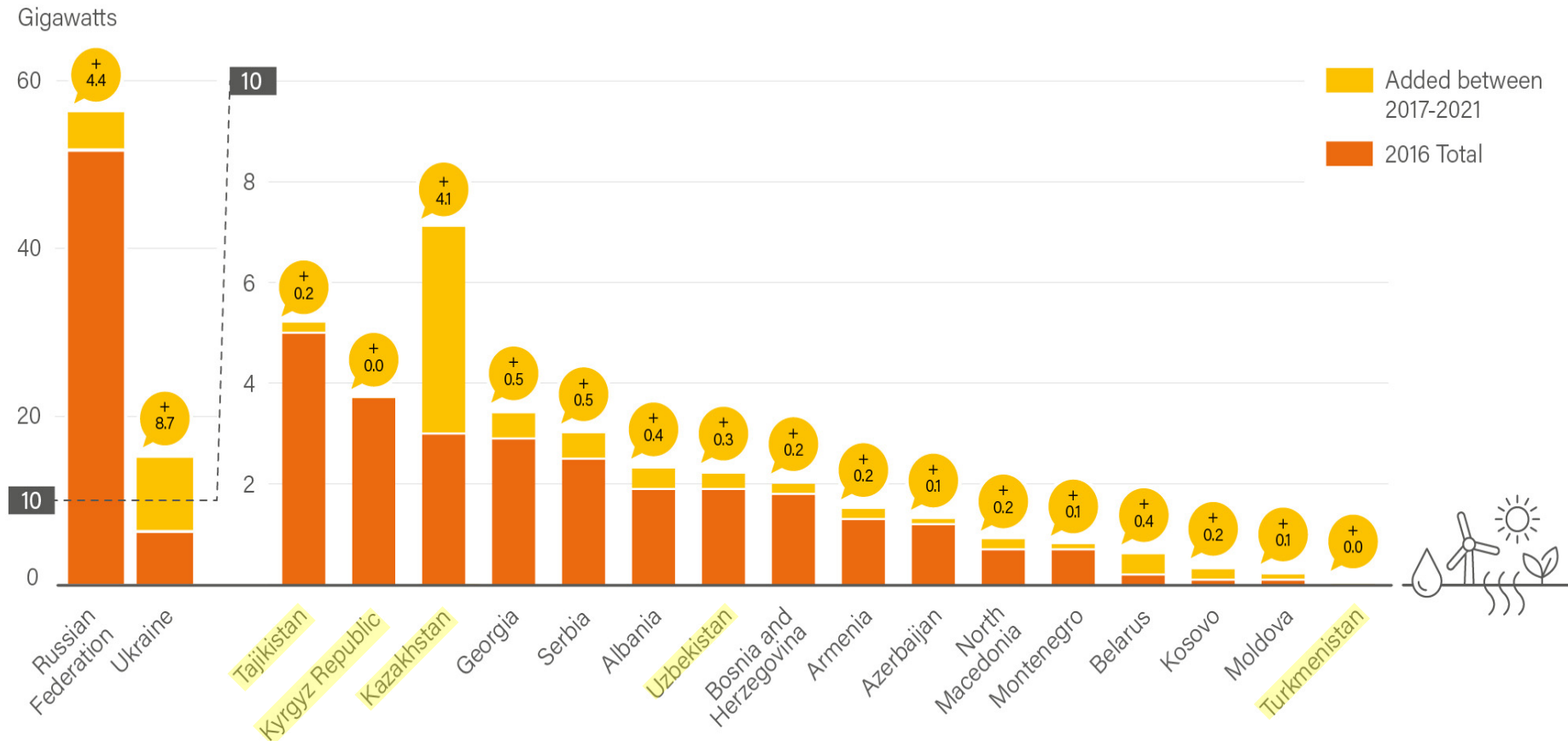
**Kazakhstan, Turkmenistan and Uzbekistan** are self-sufficient.... nearly entirely on fossil fuel.

# Growth in Renewable Power?

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Renewable Power Capacity in 2016 and Additions During 2017-2021 in the Focus Countries, GW



**20.7 GW** of capacity added in last 5 years  
**106 GW** 2021 total installed capacity

**Kazakhstan** = + 152%  
**Uzbekistan** + 17%  
**Tajikistan** + 4%  
**Kyrgyzstan** = 0%  
**Turkmenistan** = 0%

# Highly energy intensive countries

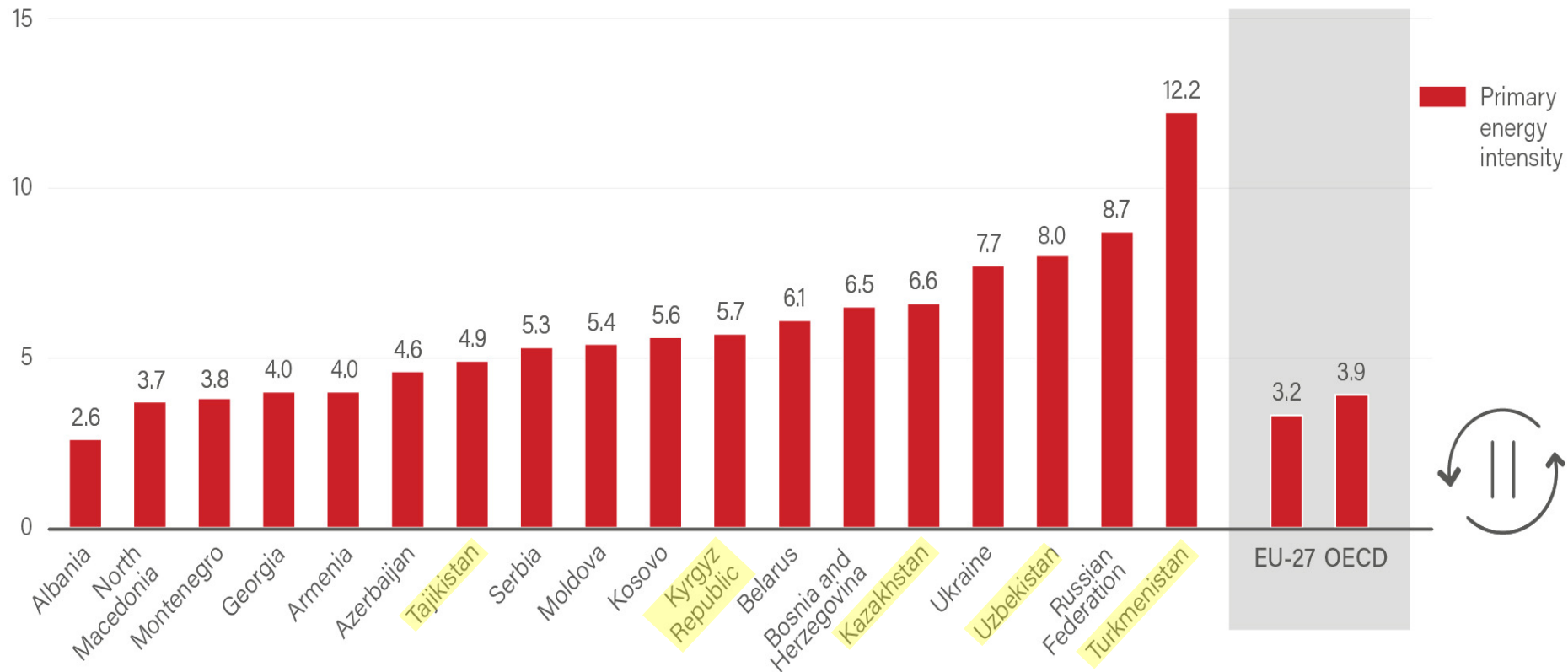
## Huge potential for energy saving and energy efficiency

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Primary Energy Intensity in the Focus Countries, 2019

Tera-joules



The 5 focus countries in Central Asia vastly exceed EU average:

Tajikistan +53%  
Kyrgyzstan +78%  
Kazakhstan +106%  
Uzbekistan +150%  
Turkmenistan +281%

# RE and EE Multi-Dimensional Indicators in Focus Countries

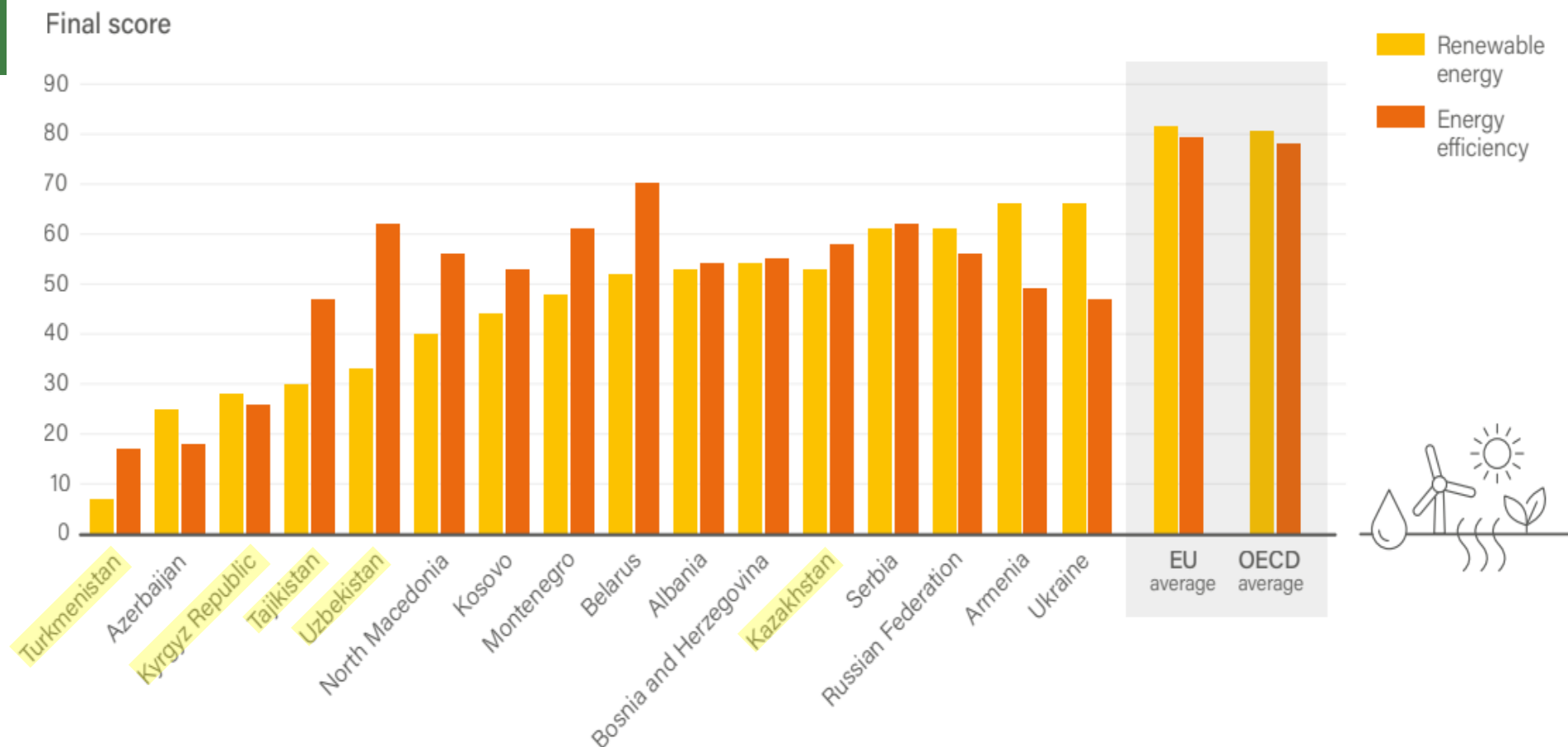
## 2019

### ENERGY



**FIGURE 5.**

RISE Renewable Energy and Energy Efficiency Multi-Dimensional Indicators in the Focus Countries, 2019



Central Asian countries lagging behind... versus EU average (RE & EE):

Turkmenistan: -91%/-78%  
 Kyrgyzstan: -66%/-67%  
 Tajikistan: -63%/-40%  
 Uzbekistan: -60%/-21%  
 Kazakhstan: -34%/-26%



# Foreign Aid received by focus countries for RE Projects

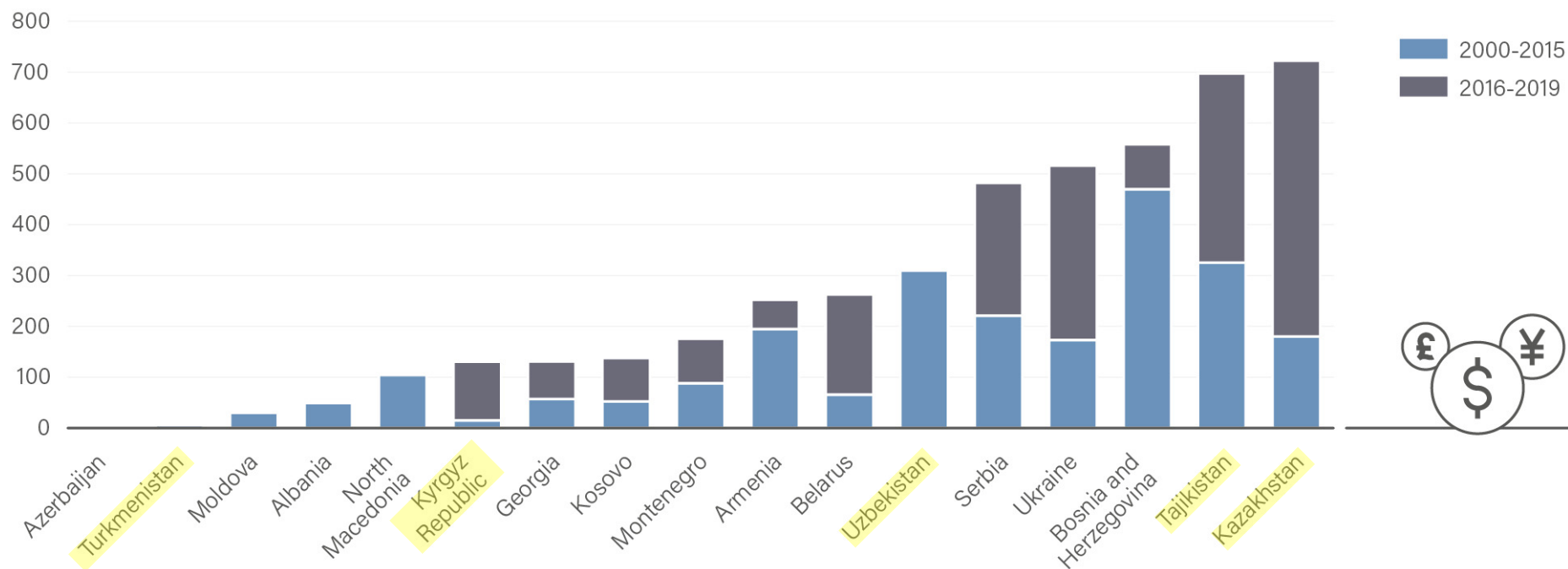
2016-2019

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Foreign Aid Committed for Renewable Energy Projects in the Focus Countries, 2016-2019  
versus 2000-2015

Current USD million



Largest aid amount committed went to projects addressing **multiple renewable energy technologies** (USD 1.3 billion), followed by financing for **hydropower plants** (USD 507 million). Financing for **biofuels** attracted USD 229 million, for **wind power** USD 234 million, and for **solar PV capacity** USD 149 million.

# EBRD, World Bank and ADB financial aid for RE projects

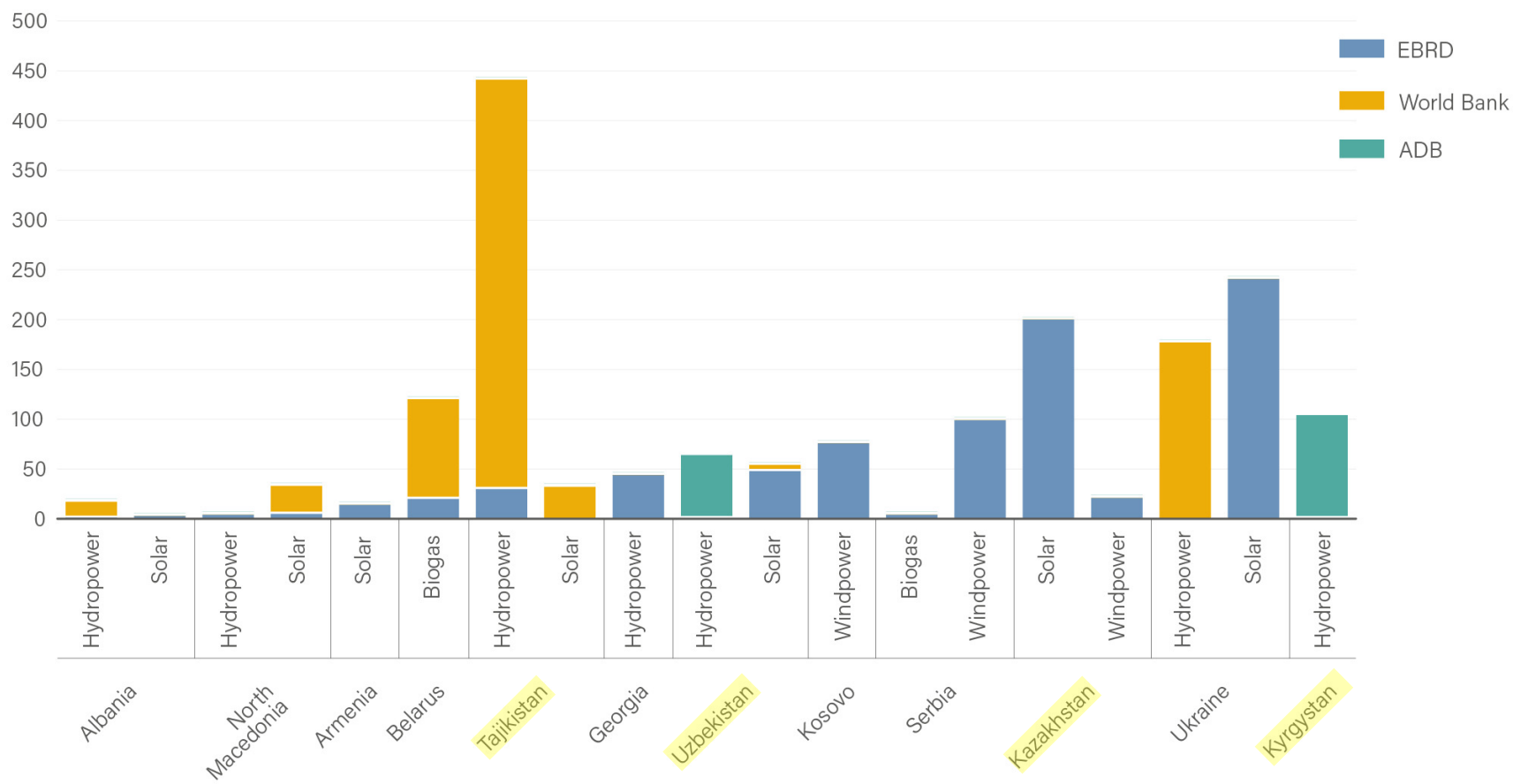
## 2017-2021

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EBRD, World Bank and ADB Finance for Renewable Energy Projects in the Focus Countries, 2017-2021

Million USD





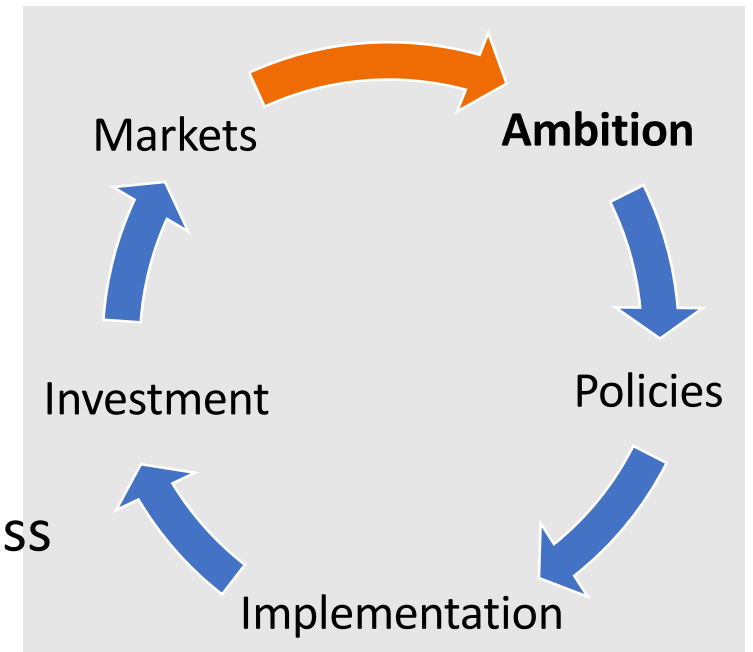
# Having targets is not enough

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Despite progress in RE and EE, many challenges remain:

- Policies need to be strengthened
- Implementation benefits from regional cooperation
- Public and private investment must increase
- Regional markets must be established to reach critical mass





## Sustainable Energy Division

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*Thank you!*