

EBRD presentation for: New approaches to stimulation of energy production from renewable sources

10 October 2017, Kyiv



European Bank
for Reconstruction and Development



- 1. Introduction to EBRD**
- 2. Renewable energy at the EBRD**
- 3. EBRD latest policy engagement: Competitive procurement of renewables**

Overview of EBRD

Key Facts

Established in 1991.

The EBRD is owned by **65 countries** from five continents, as well as the European Union and the European Investment Bank.

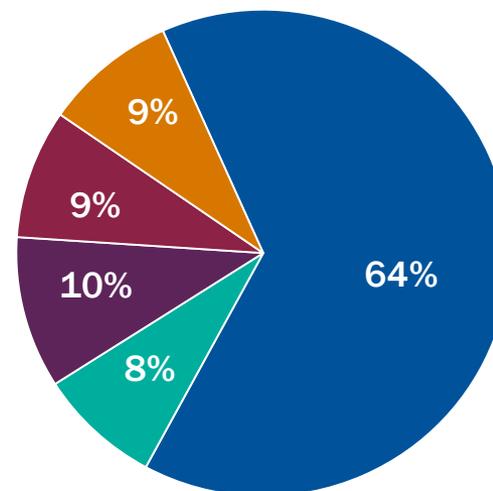
Capital base of **€30 billion**

The EBRD has a **triple-A rating** from all three main rating agencies (S&P, Moody's and Fitch)

Energy and Natural Resources Business Group

- Number of projects at Dec 2016: 429
- Net cumulative Bank Investment: €19.4 bln
- In 2016, ENRBG signed 48 projects in the amount of €2.2bln

Shareholding Structure



EU27 countries
Includes European Community and European Investment Bank (EIB) each at 3%. Among other EU countries: France, Germany, Italy, and the UK each holds 8.6%

EBRD region
Excluding EU, Russia at 4%

USA

Japan

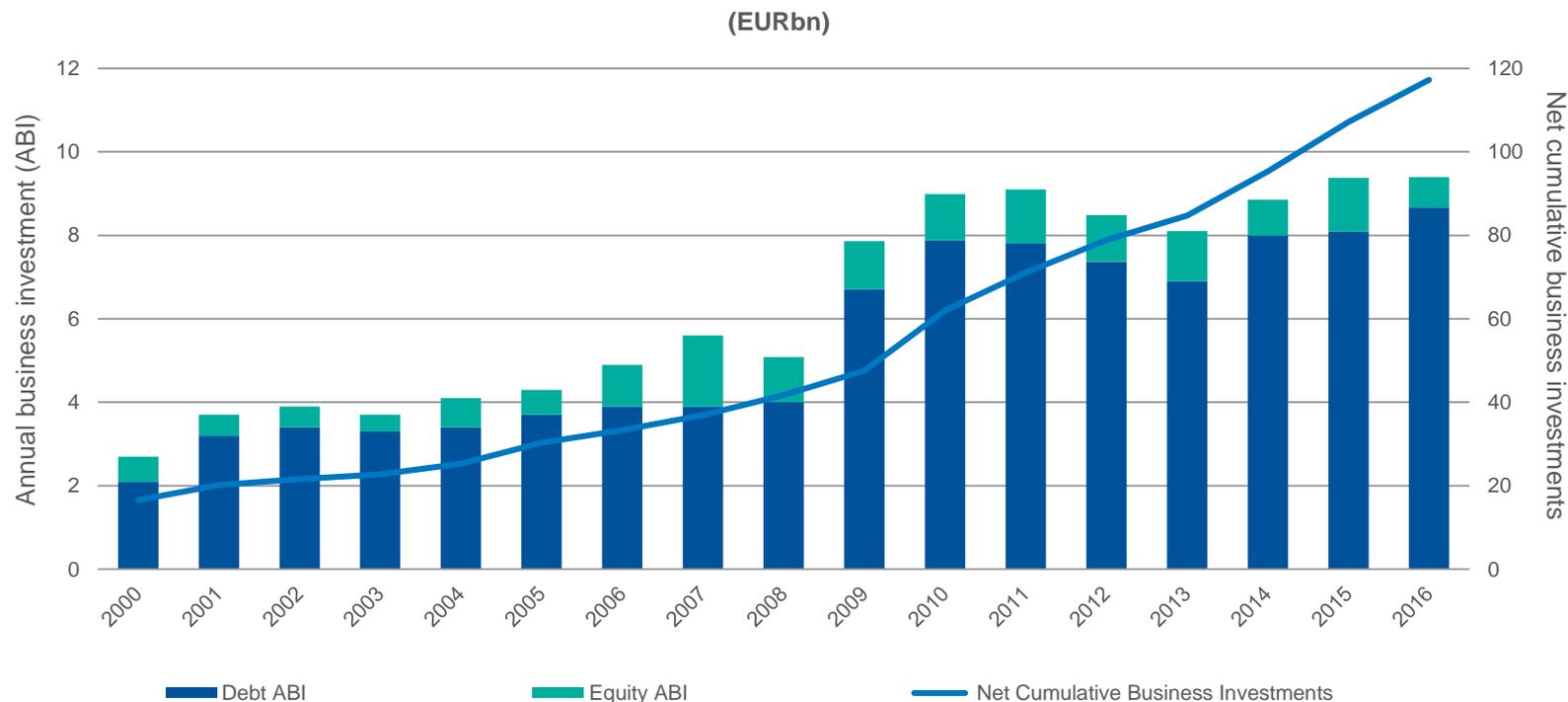
Other

As at January 2017

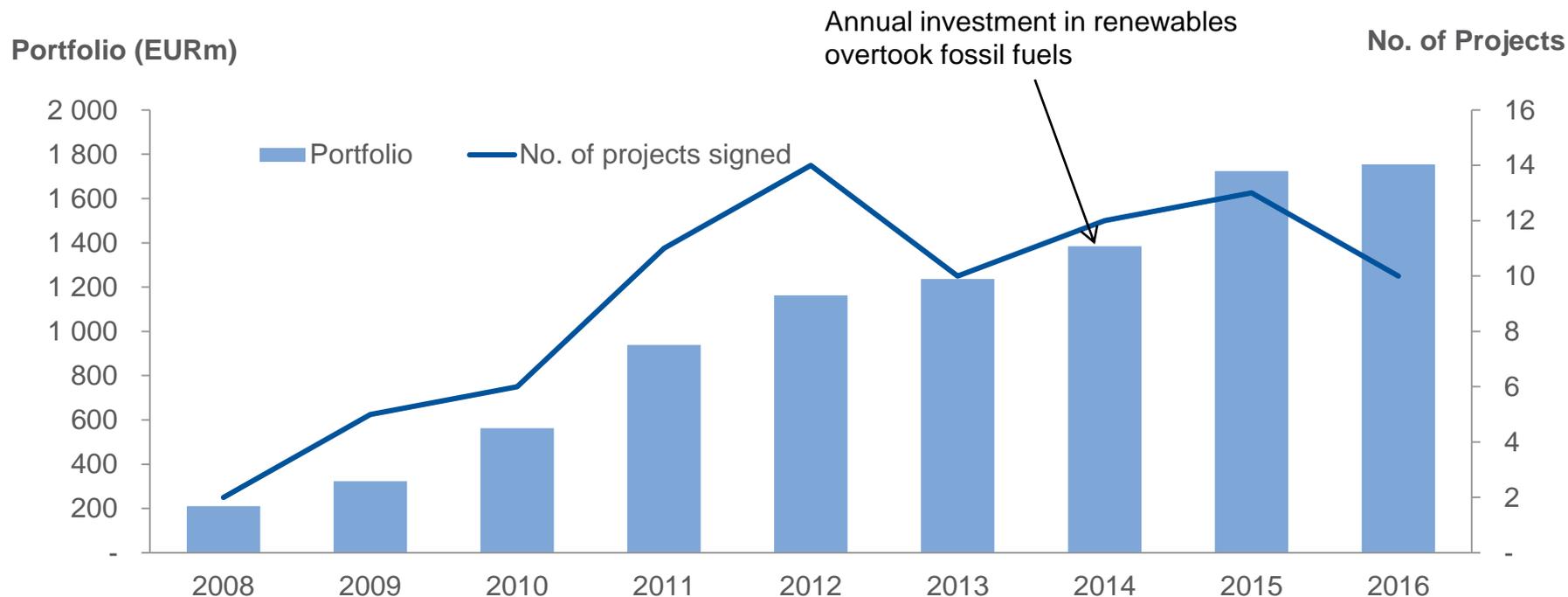
EUR 117 Billion Invested Over the Last 26 Years of Existence

Annual Business Investments (in EURbn)

- Invested in 4,740 projects since 1991
- In 2016 invested €9.4 billion in 378 projects (88% debt, 8% equity, 5% guarantees)



EBRD's Renewable Energy Portfolio grew to above EUR 1.7bn in 2016



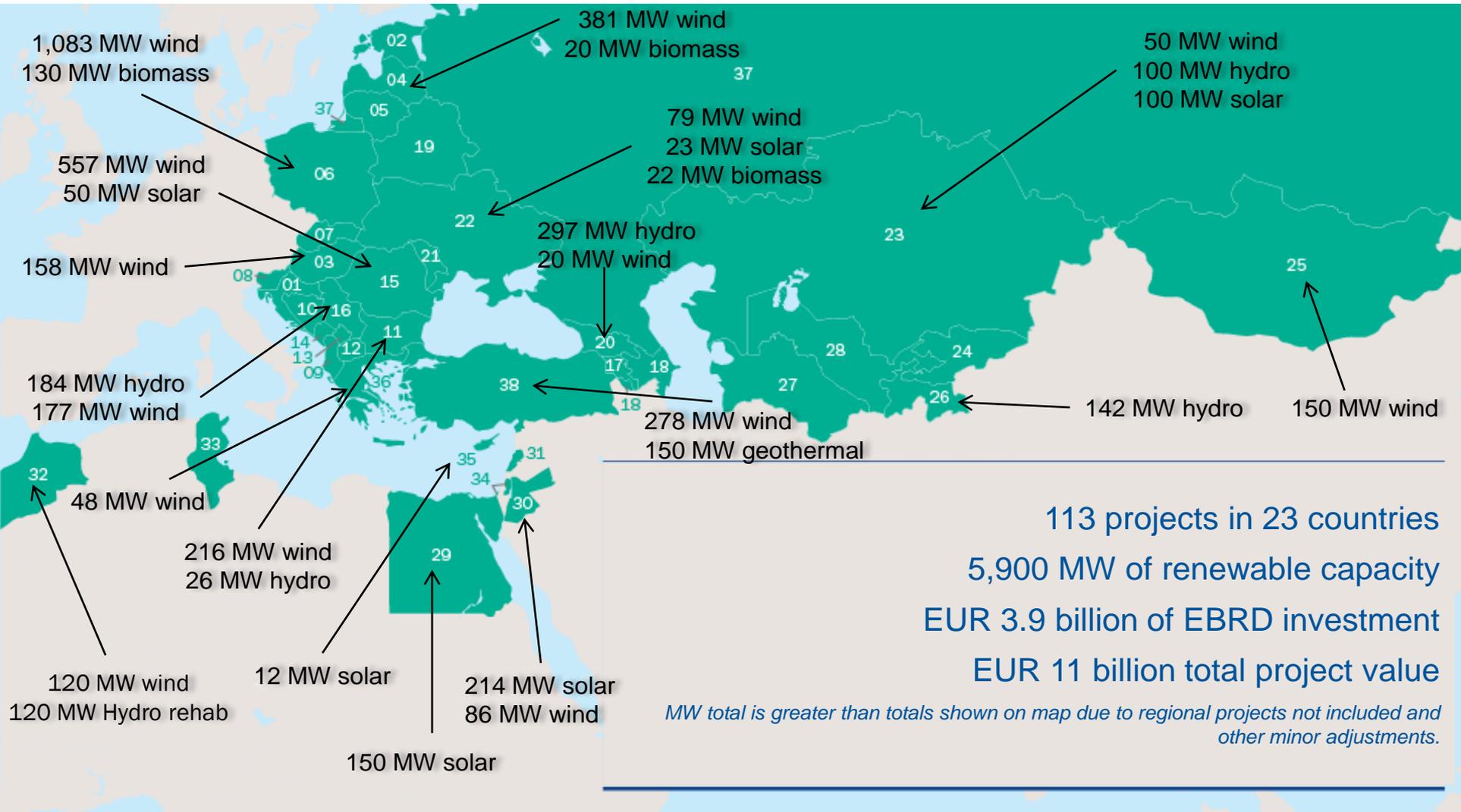
- Technologies financed include onshore wind (55%), geothermal (10%), small hydro (7%), solar (10%), and biomass (5%).
- Complex and award winning renewable transactions include: Krnovo Wind Farm (Montenegro), Salkhit wind farm (Mongolia), Ma'an Solar Programme Round 1 and 2 (Jordan), Efeler Geothermal Plant (Turkey) and Khalladi wind farm (Morocco).

EBRD investments in renewables

2007 to present



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And our investments include a number of “firsts”



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- **Burnoye Solar Park (50MW)** as the first large-scale solar photovoltaic power plant
- **Four solar power plants (60 MW)** as part of Jordan’s first round of solar projects with Independent Power Producers
- **Gori Wind (20MW)** the first wind farm in Georgia
- **St Nikola** in Bulgaria: first ever windfarm project
- **Salhit**: first windfarm in Mongolia
- **Krnovo Wind Farm (72Mw)** in Montenegro: first ever utility-scale private renewable energy project and non-recourse financing in the Western Balkans
- First private renewable plants in **Egypt** (a pipeline of 750 MW for 2017)



“Burnoye: The first commercial-scale solar park and first privately owned renewable energy generator in Kazakhstan”

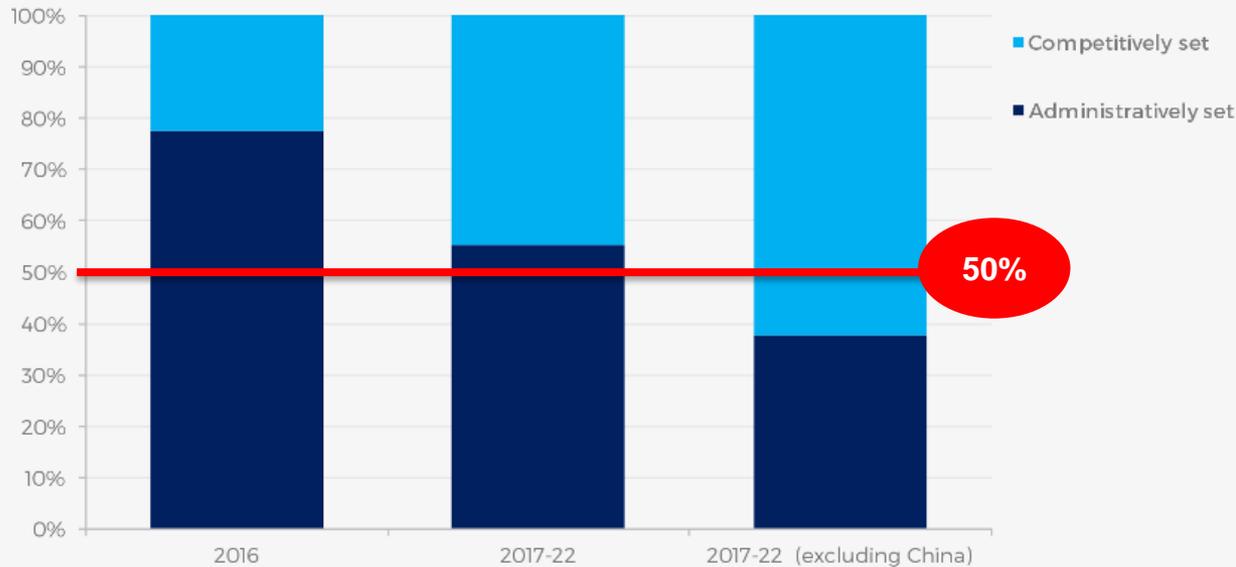


Renewables support policies are shifting towards competitions at global level



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Renewable capacity growth by type of policy to define remuneration levels
Renewables 2017



- A number of means have been implemented to support to RE
- Support to will continue where RE are more expensive than conventional
- Competitions have emerged as the favoured means of promoting investments in RE



Ukraine Sustainable Energy Lending Facility (USELF)



USELF - Special mechanism for streamlined processing of small renewable projects

Key Facts

Investments (EBRD+CTF): EUR 82 million invested in total of 80 MW capacity

Project pipeline: Extensive project pipeline

Projects: 4 solar projects, 4.2-9 MW each; some repeated Sponsor

Investments: EUR 24 million invested in total of 23 MW capacity.

Lessons learned and target : least risky projects;

Solar

Projects: 2 wind projects, 13-20 MW each; repeated Sponsor

Investments: EUR 27 million invested in total of 33 MW capacity

Lessons learned and target: turbine provider is the key; avoid in-house EPC;.

Wind

Projects: 3 projects, 1.5-18 MW each; great potential in Ukraine

Investments: EUR 27 million invested in total of 22 MW capacity

Lessons learned and target : Most risky projects; fuel supply and in-house technical expertise are key .

Bio-mass/bio-gas

Projects: 1 project, 2 MW

Investments: EUR 3.3 million invested in total of 2 MW capacity

Lessons learned and target : Risky projects; a key is to have an experienced developer and robust project design.

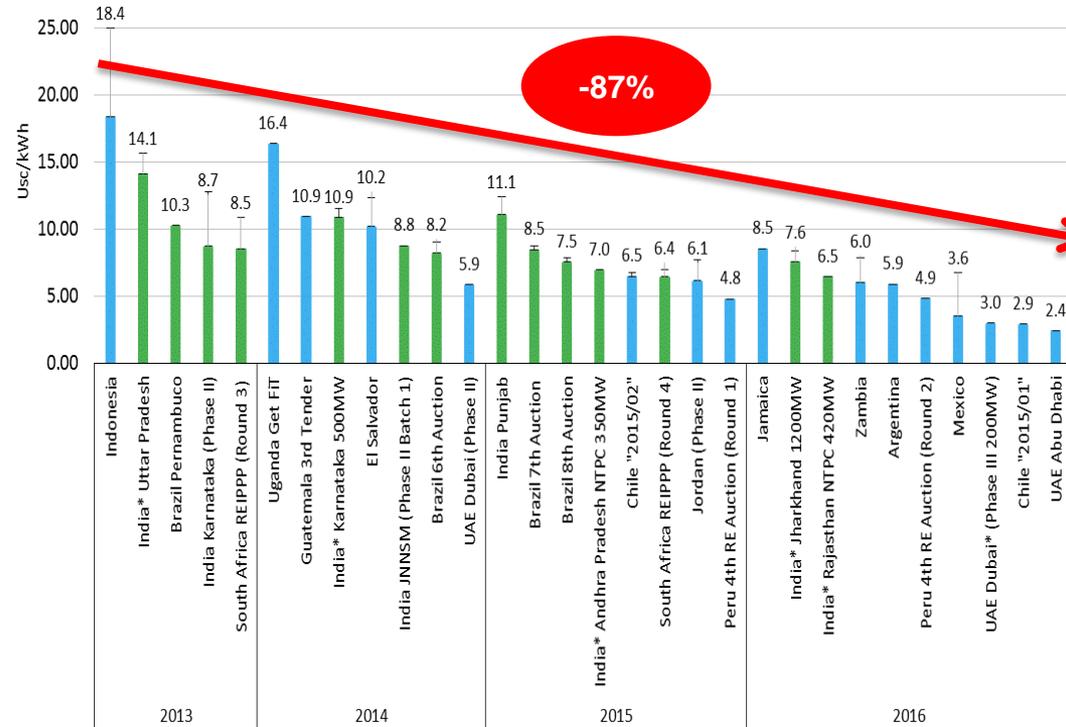
Small hydro projects

Competitive procurement of renewables



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- **Falls in cost of renewables** – facilitated by competitive tenders – will strengthen the case of renewables
- **Competitive tenders also remove uncertainty** about the “right” level of support for renewables - an issue that is partly responsible for retroactive policy changes

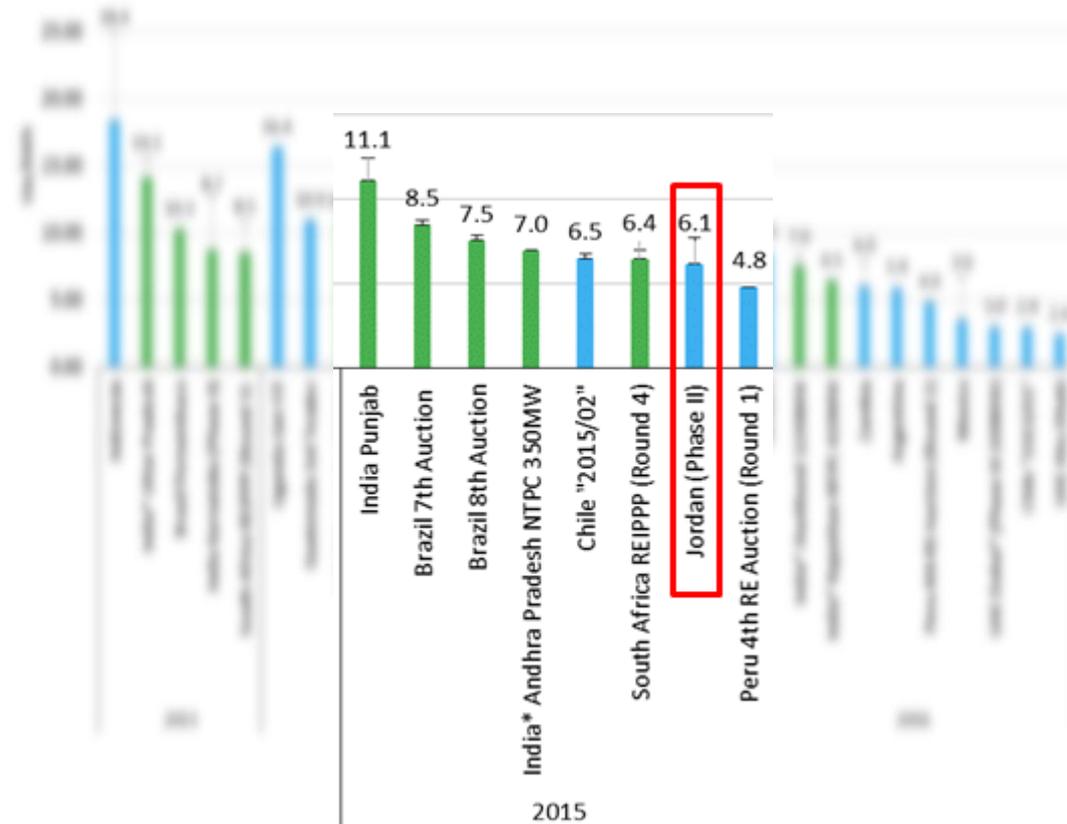


Competitive procurement of renewables



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- Falls in cost of renewables—facilitated by competitive tenders – will strengthen the case of renewables
- Competitive tenders also remove uncertainty about the “right” level of support for renewables - an issue that is partly responsible for retroactive policy changes
- **But only one EBRD country of operations features among the lowest price tenders**



EBRD support to competitive procurement of renewables

- ❑ EBRD is responding by supporting the **introduction competitive procurement for maturing markets** (support already in Poland, work starting in Albania and Egypt).
 - *Maturity depends on industrial and regulatory environment;*
- ❑ **EBRD aims at providing recommendations on selected elements of the design of RE competitions**, highlighting important areas of the policy framework that should be considered when designing and implementing RE competitions.
 - *The Contractual Framework for RE Support (e.g., PPA)*
- ❑ **Assisting countries to transition to new support frameworks** that deliver lower cost renewable electricity and are consistent with the requirements of the 2014 EU State Aid Guidelines
 - *how much RE to support (i.e. approach to determine the limit);*
 - *what to support (e.g. which technologies to support);*
 - *where to support it (e.g. location decisions); and*
 - *how to support RE (e.g. through feed-in tariffs, feed-in premiums, etc.).*

