

EBRD Experience with Distributed Renewables Policy

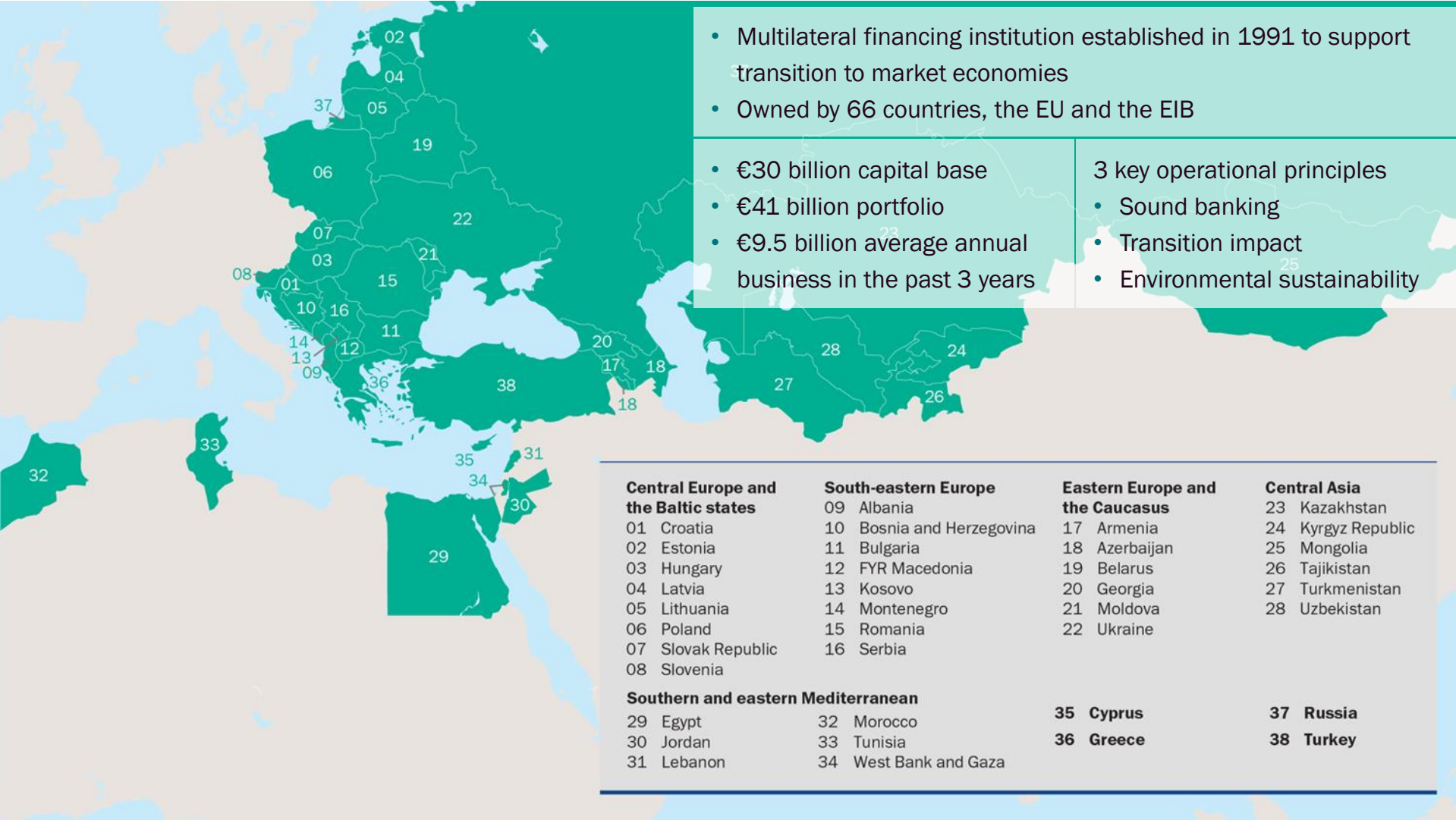
Dorina Peristeri, Principal Banker
European Bank for Reconstruction and Development (EBRD)

18 June 2019
Tirana, Albania



European Bank
for Reconstruction and Development

The EBRD



- Multilateral financing institution established in 1991 to support transition to market economies
- Owned by 66 countries, the EU and the EIB

- €30 billion capital base
- €41 billion portfolio
- €9.5 billion average annual business in the past 3 years

- 3 key operational principles
- Sound banking
 - Transition impact
 - Environmental sustainability

Central Europe and the Baltic states	South-eastern Europe	Eastern Europe and the Caucasus	Central Asia
01 Croatia	09 Albania	17 Armenia	23 Kazakhstan
02 Estonia	10 Bosnia and Herzegovina	18 Azerbaijan	24 Kyrgyz Republic
03 Hungary	11 Bulgaria	19 Belarus	25 Mongolia
04 Latvia	12 FYR Macedonia	20 Georgia	26 Tajikistan
05 Lithuania	13 Kosovo	21 Moldova	27 Turkmenistan
06 Poland	14 Montenegro	22 Ukraine	28 Uzbekistan
07 Slovak Republic	15 Romania		
08 Slovenia	16 Serbia		
Southern and eastern Mediterranean			
29 Egypt	32 Morocco	35 Cyprus	37 Russia
30 Jordan	33 Tunisia	36 Greece	38 Turkey
31 Lebanon	34 West Bank and Gaza		

Distributed RE: Definition



Micro wind



Solar PV



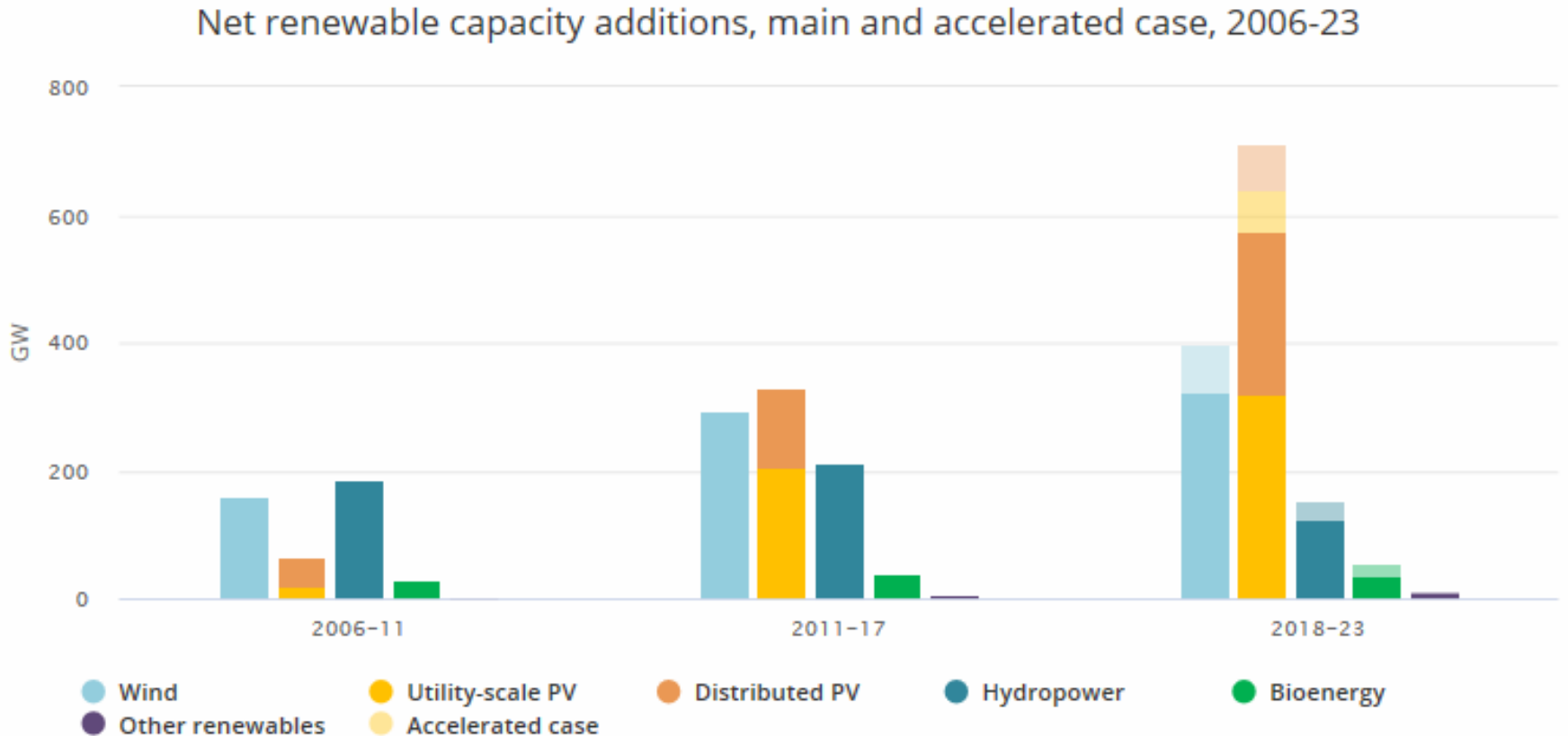
Biogas



Small hydro

- Distributed RE usually refers to a generating plant connected directly to the grid at distribution level voltage or on the customer side of the meter
- Projects that are intended primarily for self-consumption (owned/leased by the consumer OR by a third-party with a direct arrangement with a specific consumer[s])
- Usually 10 MW or less, so as to allow interconnection at nearly any point in the power system

Distributed RE: Investment Opportunity

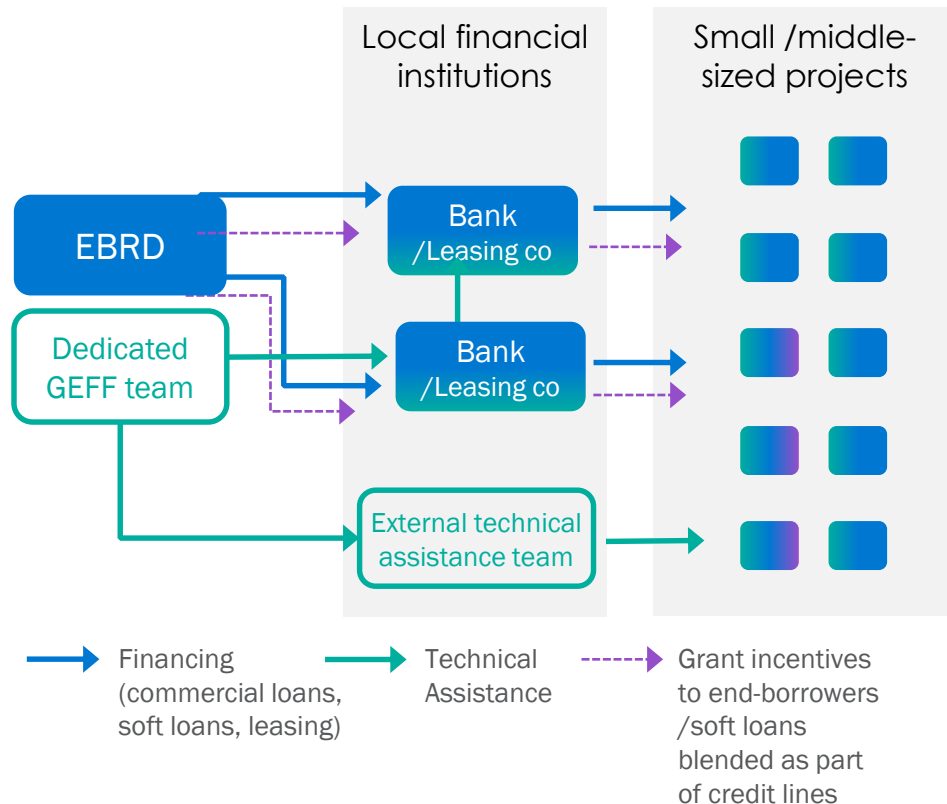


© OECD/IEA

Globally, the IEA anticipates that growth of distributed RE capacity (in particular PV) will continue to grow significantly – largely due to economic factors (i.e. declining costs for RE equipment)

EBRD financing for distributed RE and supporting policies

Smaller scale projects approx. sub 500kW-1 MW in residential and C&I sectors:*



Policies that improve project bankability and thus market size:

- Single-owner net-metering
- Basic-meter aggregation
- Tenant meter aggregation
- Multi-site aggregation
- Virtual net metering or community RE
- On-site corporate PPAs

EBRD has launched GEFF in Albania in early 2019. Currently, Union Bank and Fondi Besa are GEFF recipients.

* - indicative size – in some markets this is much higher, e.g. in Egypt up 6 MW.

EBRD financing for distributed RE and supporting policies

Smaller scale projects approx. 500kW/1MW to 10MW

- **Corporate / project finance**
 - Fixed or floating rate.
 - Senior, subordinated, mezzanine or convertible debt.
 - Denominated in major foreign or local currencies.
 - Short to long-term maturities up to 10 years
 - Project-specific grace periods may be incorporated
- **Equity**
- **Guarantees**

Policies that improve project bankability and thus market size:

- Multi-site aggregation
- Virtual net metering or community RE
- On-site corporate PPAs
- Off-site corporate PPAs / power wheeling

EBRD support for distributed RE and experience

- EBRD has a significant portfolio of distributed RE investments
- Alongside our financing, EBRD on request from Governments supports putting in place enabling policy frameworks for distributed RE. Some examples of on-going PD assistance:
 - **Lebanon** – “Introduction of a Legal Framework for Distributed RE”
 - **Azerbaijan** – “Support for the implementation of an enabling policy framework for small-scale renewable energy (in the context of a new energy law)”
 - **Kazakhstan** – “Study on mechanisms for the development of small-scale renewables in Kazakhstan to inform policy reform”
 - **Armenia** – “Support for enhancing legal framework for small-scale renewables”
- A stable policy / legal framework is crucial for investments in distributed RE and retroactive changes are a risk for investments. Such changes have occurred in some of our COOs when policy frameworks did not give due consideration to implementation complexities and associated costs for distribution / transmission system operators
- A phase-in approach may be prudent: i.e. simple net-metering first and then move towards more complex arrangements such as virtual net-metering

Thank you!



European Bank
for Reconstruction and Development

Contacts:

Dorina Peristeri
Principal Banker
PeristeD@ebrd.com