Introduction to EBRD

Who we are

- **Multilateral financial institution.** Mandate to promote the transition to market economies by investing primarily in the private sector.

- **Owned by 66 countries and two inter-governmental bodies** (the European Commission and the European Investment Bank).

- In 2017, EBRD invested EUR 9.7bn through 412 operations, 71% in the private sector. More than EUR 119bn has been invested to date in more than 5,000 projects.

- **Investment in Kazakhstan** in 2017: USD 700m, 25 projects.

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**Cumulative Business Volume** (excluding Guarantees)

**Portfolio Distribution by Country**

**Shareholder Structure**
EBRD Investments in Energy

A key investor in the energy sector

- **Track record:**
  - 187 operations
  - EUR 8.13bn invested
  - EUR 3.67bn portfolio

- **ERCCA team:**
  - 18 bankers distributed across the Central Asia and the Caucasus:
    - A permanent presence in Russia, Kazakhstan, and Georgia
    - Two in-house mining and petroleum engineers for project appraisal, due diligence and monitoring
    - Access to additional expertise (consultants)

- **Key sectors:**
  - Oil&Gas up-, mid- and downstream
  - Metal ore mining
  - Power & Energy
  - Services

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**Signed business volume**

**Operating assets by instrument**

**Portfolio as of December 31, 2010**

**Portfolio as of December 31, 2017**

- EUR 5.3 billion
- EUR 8.5 billion
EBRD investments in renewables

A key investor in the renewable energy sector

- **Number of projects**: 66 - 71
- **Total renewable capacity**: 3.5 GW - 3.3 GW
- **EBRD investment**: EUR 2.1bn - EUR 2.4bn
- **Approximate project value**: EUR 5.4bn - EUR 7.9bn

*Renewable capacity refers to new build projects only. The number of projects and EBRD investments also includes bonds and rehabilitations assets.
EBRD technical assistance in renewables

Catalysing new markets

First utility scale renewables in the region, building on years of discussion and consultancy advice to prepare the regulatory and contractual framework.

First solar projects, following detailed engagement with the government on PPA drafting.

First private renewable projects and design and implementation of the regulatory framework.

First private renewable projects, coupled with policy dialogue and consultancy advice on the underlying regulations.

Support for development of the NREAP.

Selected examples show how in key countries EBRD combines policy dialogue and consultancy advice to create the enabling framework, before supporting first of a kind projects.

First private renewable projects after years of support to put in place the renewable regulatory framework.

First private renewable projects, building on three years of support to the government on PPA drafting, grid code and environmental assessment.

First private-to-private windfarm, alongside extensive consultancy advice to open up MV and LV networks.
Renewables have a critical role to play for climate change mitigation
Falling cost of renewable energy, decarbonising power and electrification

Key challenges posed by scaling-up renewables and electrification from clean sources:

- Flexibility: storage and flexible energy sources such as gas, and spare capacity in generation and fuel infrastructure.
- Grid infrastructure: interconnectors, distributed generation sources, smart meters and demand side management.
- Adapting electricity markets: accommodate near-zero marginal cost sources and increases in integration costs.

The cost of electricity from renewable energy sources has fallen sharply.

Lower cost renewables provide a cost-effective path for the decarbonisation of the power sector.

Combination of decarbonised power sector and electrification of the economy (including, of transport and heating) is needed to meet climate change goals and improve air quality.

A combination of factors — including improvements in efficiency, falling raw material costs, international competition among producers, economies of scale, and competitive procurement — have contributed to the fall in per unit costs.

• Electrification plays an important role in the IEA’s Sustainable Development scenario.
• Electrification is particularly prominent in transport, but occurs gradually over time and requires significant supporting measures (e.g. development of charging infrastructure). Other fuels continue to account for the majority of transport energy consumption.

Scaling-up renewable energy investments

Competitive tenders: removes uncertainty about the “right” level of support for renewables and the concern that countries may have been “overpaying”, which contributed to the policy reversals in countries such as Bulgaria, Poland and Romania.

Fall in cost of renewables: facilitated by competitive tenders, strengthens the case for renewables in the region.

while, in parallel, addressing intermittency and energy security by:

- Smart networks and interconnectors: some investments in more mature electricity markets, but limited penetration in the region as a whole.

- Energy storage: costs of energy storage have declined. EBRD is currently supporting studies in battery storage and contemplating first large scale investment.

- Flexible capacity sources: gas-fired capacity that can respond at short notice.
## Opportunities and Challenges

### Starting point
- Exceptional resource potential (especially wind, solar, hydro) for developing renewables
- Strong but pragmatic political will
- Existing/developing legal framework, support mechanisms
- Untested market

### Opportunities
- Attracting reputable foreign and local investors
- Attracting “know-how” and the best available technology on the market
- Diversification of the economy relevant for the energy sector dominated by aged power stations
- Carbon footprint and emission reduction
- Supply of carbon credits to the carbon credit market currently being launched

### Challenges
- The **costs of renewables** remain significantly above conventional power
- **Intermittent and unpredictable nature** of wind and solar power, seasonality of hydro
- Growing **competitiveness of technologies**
- **Impact of large power volumes** interfering with system stability because of priority of dispatch (no balancing market).
Risks specific to renewables financing

- Creditworthiness of the off-taker
- Power Grid Connection
- Power Curtailment risks
- Completion and cost-overruns risk
- Renewable resource risk (wind, solar, hydro, geothermal)
- FX/ Interest rate risk
- Construction/ Operational risk
- Technology risk
Renewables financing

*Project requirements*

- Reliable, financially stable shareholders (sponsors) of the project, preferably with successful experience in implementing similar projects
- The use of advanced technologies for renewable source facilities
- Adequate cost of equipment, construction, and the total project cost
- Confirmation of renewable energy resources potential
- A project should comply with the requirements for "qualification of renewable energy generation facility"
- Long-term contract for the supply of electricity
- Independent Technical/Environmental/Legal due diligence
- Strong project economics (DSCR, IRR)
EBRD’s renewable energy projects in Kazakhstan

The largest investor in renewable energy in Kazakhstan

Shardara
Hydro Power Plant

Zadarya (14MW)
Solar Power Plant

Burnoye extension
Solar Park (50MW)

Yereymentau
Wind Farm (50MW)

Burnoye
Solar Park (50MW)
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Thank You – Questions?
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