EBRD investments in renewable energy in Kazakhstan

June, 2019
1. Introduction to the EBRD
2. EBRD Kazakhstan Track Record
3. EBRD Investments in renewables
EBRD Promotes transition to market economies whilst fostering sustainable development and inclusive growth.

67 countries and two EU bodies.

EUR >130bn invested since 1991

>5,000 projects since 1991

EUR 9.5bn across 395 projects, 79% private sector and 91% debt in 2018.

China became the shareholder of the Bank in 2016 and India in 2018.
Capital Mobilisation  A catalyst for equity, debt and trade finance, EBRD works closely with other providers of capital to fill “market gaps”.

Label of Quality  High corporate governance and Environmental & Social standards.

Long Tenors  The investment horizon of EBRD’s financing typically extends beyond the market.

Local Presence  Extensive knowledge of the local economy, business environment and practices and close relationship with governments and key stakeholders.

Business partner  Shares risks (including political) supported by EBRD’s unique mandate and shareholder structure.

AAA rating  EUR 30bn capital base and Preferred Creditor Status.
EBRD Kazakhstan Track Record
A key investor outside extractive industries sector

Introduction to EBRD

253 equity and debt projects

EUR 7.7bn investment since 1991

EUR 2.4bn debt and equity portfolio


Key Sectors
- Natural Gas
- Renewables
- Power Generation
- Power Distribution
- Power Transmission

Signed business volume

Operating assets by instrument

Energy Portfolio as of December 31, 2018
EBRD Kazakhstan Track Record

Green Economy Transition Approach (GET)

- The EBRD has been engaged in sustainable energy finance since its establishment.
- In 2006, the EBRD launched the Sustainable Energy Initiative to address the twin challenges of energy efficiency and climate change.
- The EBRD was the first MDB with a dedicated pool of technical experts in-house.
- In 2009, the EBRD became the first MDB to set itself a carbon emissions target.
- In 2013, the Sustainable Resource Initiative was launched which expands the focus from energy to include water and materials.
- In 2015, the Green Economy Transition approach was launched under which the EBRD’s green financing is to reach 40% of total annual business volume by 2020.

The EBRD’s engagement in the context of its countries of operations:
- high share of heavy industry
- ageing infrastructure
- high energy intensity
- a lack of market-based pricing for energy

GET Investments in Kazakhstan

€2.072 billion
GET finance since 2006
97 projects
GET projects since 2006
7,343 ktonnes / year
Total CO2 emissions reductions
EBRD Investments in renewables

Central Asia

Introduction to EBRD

EBRD Kazakhstan Track Record

EBRD Investments in renewables

What we do: EBRD Investments in Central Asia

- As of end of 2018, EBRD power & energy portfolio in Central Asia is €948 million and includes 35 projects
- More than 72% of the portfolio consists of private sector projects
- In 2018, the team invested in projects worth over €266 million
- A wide array of sponsors from the UK, France, China, and Germany were attracted

Supporting sustainable energy in the region

- The EBRD is the pioneer in supporting sustainable energy projects in the Region
- Through investments, the Bank aims to support sector reforms that increase competition and liberalization of the market, strengthen frameworks for regionalization and energy security, prioritize energy efficiency and use of renewable energy

What is required to unlock the potential?

- The region needs stronger macroeconomic policies and clear, independent and predictable sector regulation
- Long term regulatory certainty/predictability is key
- Bankable transactions attracting other lenders and third party finance
- Reliable, financially stable shareholders (sponsors)
- Strong Power Purchase Agreement / creditworthy off-taker

Starting point

- Exceptional resource potential (especially wind, solar, hydro) for developing renewables
- Aged existing infrastructure
- Strong but pragmatic political will
- Strong support from international financial institutions and other donors
- Developing legislative and regulatory regimes

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
- Carbon footprint and emission reduction
- Supply of carbon credits to the carbon credit market currently being launched (Kazakhstan)

Challenges

- 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)
- Low existing tariffs / affordability issue
# EBRD Investments in renewables

## Promoting Green Economy Transition in Kazakhstan

<table>
<thead>
<tr>
<th>LEGISLATION</th>
<th>POLICY DIALOGUE ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2009</strong></td>
<td>▪ Assisting for drafting of secondary legislation implementing the renewable energy law (2009)</td>
</tr>
<tr>
<td>• Introduction of <strong>feed-in tariff system with uniform structure</strong></td>
<td>▪ Advice to the Government of Kazakhstan on Developing FiTs for Renewable Energy Sources (2010)</td>
</tr>
<tr>
<td><strong>2011-2013</strong></td>
<td>▪ Advising on improvement renewable energy primary legislation (2011)</td>
</tr>
<tr>
<td>• Launch of <strong>operational legal framework</strong> with a set of rules and norms on renewable energy</td>
<td>▪ Advising on a renewable energy sources allocation (2013)</td>
</tr>
<tr>
<td>• Introduction of (i) <strong>fixed feed-in tariffs</strong>, (ii) development of the <strong>Financial Settlement Centre</strong> off-taking energy via (iii) development of <strong>Power Purchase Agreements</strong> agreement</td>
<td>▪ Modelling the social impact of renewable energy feed-in tariffs (2013)</td>
</tr>
<tr>
<td><strong>2013</strong></td>
<td>▪ Assisting in the final stage of developing renewable energy legislation (2014)</td>
</tr>
<tr>
<td>• Introduction <strong>Law on supporting the use of Renewable Energy</strong></td>
<td>▪ Assisting Ministry of Energy on establishing a bankable regulatory and legal framework (2015-2016)</td>
</tr>
<tr>
<td><strong>2014</strong></td>
<td>▪ Strategic Environmental Review (SER) of RES development in Kazakhstan (2015-2016)</td>
</tr>
<tr>
<td>• Introduction of <strong>full indexation of feed-in tariffs against inflation</strong></td>
<td>▪ Assisting in the review of the PPA bankability (2018)</td>
</tr>
<tr>
<td><strong>2015-2016</strong></td>
<td></td>
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<tr>
<td>• Introduction of the <strong>Green Economy Law</strong> which provides further supports to the development and operation of renewable energy projects</td>
<td></td>
</tr>
<tr>
<td><strong>2018</strong></td>
<td></td>
</tr>
<tr>
<td>• Introduction of <strong>auction scheme</strong> for RES development.</td>
<td></td>
</tr>
<tr>
<td>• 858MW of solar, wind, hydro and biomass capacity was auctioned.</td>
<td></td>
</tr>
</tbody>
</table>
EBRD Investments in renewables

**GCF – EBRD Kazakhstan Renewables Framework**

Supporting the construction of 8 to 11 renewable energy projects in Kazakhstan, with a total capacity of 330 MW. Helping Kazakhstan to achieve ~18% of its 2020 renewable energy goals.

**Framework Components**

1. **Scaling up renewable energy investments**, by blending EBRD and GCF financing and leveraging additional debt financing from international and development financial institutions and in the future from commercial banks, as well as private sector investments

2. **Enhancing renewable energy integration**, policies and planning through a comprehensive technical assistance and policy dialogue

**Financial Structure**

<table>
<thead>
<tr>
<th>Total finance</th>
<th>US$557 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>GCF Funds</td>
<td>US$110 million</td>
</tr>
<tr>
<td>of which grant</td>
<td>US$4 million</td>
</tr>
<tr>
<td>concessional loan</td>
<td>US$106 million</td>
</tr>
<tr>
<td>EBRD loan</td>
<td>US$214 million</td>
</tr>
<tr>
<td>EBRD grant</td>
<td>US$3 million</td>
</tr>
<tr>
<td>Other lenders</td>
<td>US$93 million</td>
</tr>
<tr>
<td>Sponsors equity</td>
<td>US$137 million</td>
</tr>
</tbody>
</table>
EBRD Investments in renewables
2014 – 2019

### EBRD Kazakhstan Track Record

<table>
<thead>
<tr>
<th>Project</th>
<th>Capacity</th>
<th>EBRD Investment</th>
<th>Total Project Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burnoye 1 &amp; 2 SPP</td>
<td>100 MW</td>
<td>USD 124m</td>
<td></td>
</tr>
<tr>
<td>Nomad SPP</td>
<td>28 MW</td>
<td>USD 26m</td>
<td></td>
</tr>
<tr>
<td>Baikonur SPP</td>
<td>50 MW</td>
<td>USD 30m</td>
<td></td>
</tr>
<tr>
<td>Shardara Hydro Power</td>
<td>100 MW</td>
<td>USD 121m</td>
<td></td>
</tr>
<tr>
<td>Zadarya SPP</td>
<td>14 MW</td>
<td>USD 9m</td>
<td></td>
</tr>
<tr>
<td>Chulakkurgan SPP</td>
<td>63 MW</td>
<td>USD 45m</td>
<td>USD 117m</td>
</tr>
<tr>
<td>Saran SPP</td>
<td>100 MW</td>
<td>USD 54m</td>
<td>USD 105m</td>
</tr>
<tr>
<td>Zhangiz SPP</td>
<td>30 MW</td>
<td>USD 12m</td>
<td>USD 25m</td>
</tr>
<tr>
<td>M-KAT Green SPP</td>
<td>100 MW</td>
<td>USD 58m</td>
<td>USD 122m</td>
</tr>
<tr>
<td>Salkhit Wind Park</td>
<td>50 MW</td>
<td>USD 43m</td>
<td>USD 115m</td>
</tr>
<tr>
<td>Tseitsii Windfarm</td>
<td>50 MW</td>
<td>USD 25m</td>
<td>USD 127m</td>
</tr>
<tr>
<td>Sainshad Wind</td>
<td>55 MW</td>
<td>USD 30m</td>
<td>USD 120m</td>
</tr>
<tr>
<td>Desert SPP</td>
<td>30 MW</td>
<td>USD 10m</td>
<td>USD 48m</td>
</tr>
<tr>
<td>Qairokkum Hydro Power</td>
<td>126 MW</td>
<td>USD 88m</td>
<td>USD 205m</td>
</tr>
</tbody>
</table>

- **16 projects**
- **936 MW** of renewable capacity
- **USD 684 million** of EBRD investment
- **USD 1466 million** total project value
Contacts

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