

# **Development of Renewables in Central Asia**

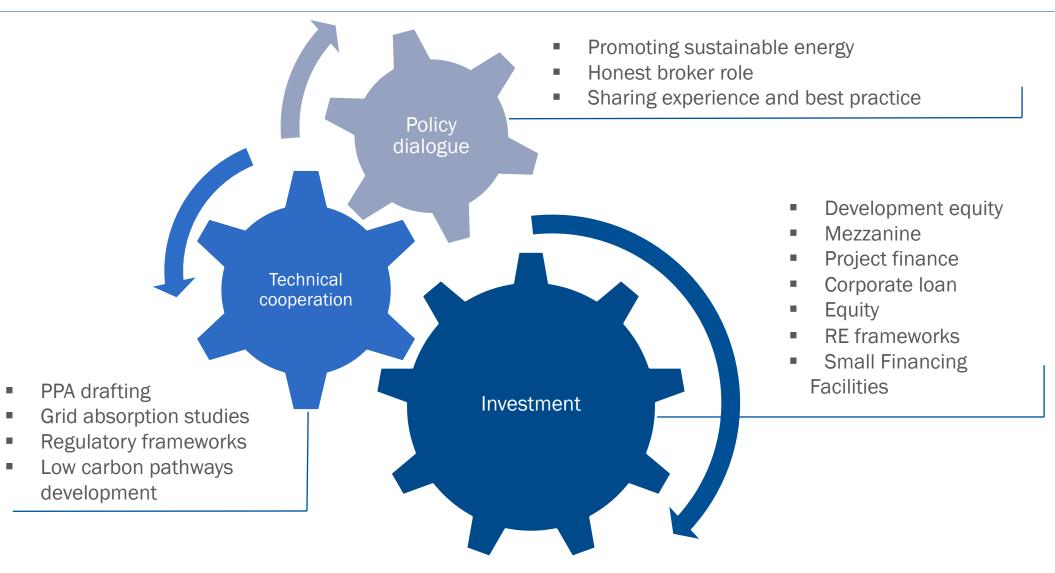


May 2022

# EBRD investments in energy in Central Asia

**Operational approach** 





# **EBRD investments in energy in Central Asia** Challenges and Opportunities



### Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, Mongolia

- 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 the key.
- Bankable transactions attracting other lenders and third party finance.
- Reliable, financially stable shareholders (sponsors).

### What is the region's potential?

#### Starting point

- Exceptional resource potential (especially wind, solar, hydro) for developing renewables
- Strong but pragmatic political will
- Strong population growth
- Existing/developing legal framework, support mechanisms

#### Opportunities

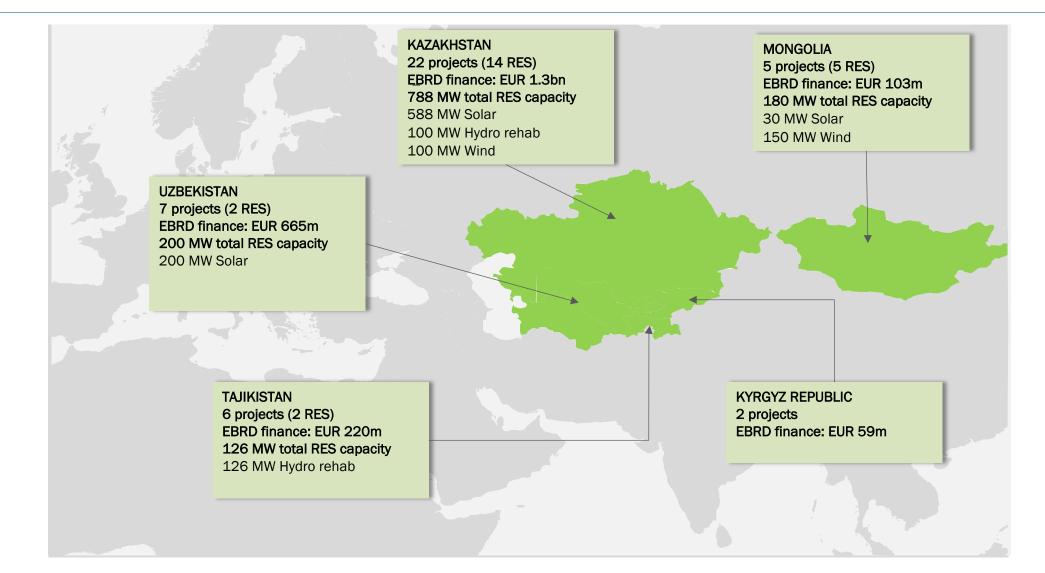
- Attracting reputable foreign and local investors
- Attracting "know-how" and the best available technology on the market
- Steep cost reduction of RES technologies
- Carbon footprint and emission reduction
- Supply of carbon credits to the carbon credit market

#### Challenges

- Intermittent and unpredictable nature of wind and solar power, seasonality of hydro
- Impact of large power volumes interfering with system stability because of priority of dispatch (no balancing market)
- Poor diversification of power sector balance with huge reliance on aged power stations

## **EBRD** investments in renewables in Central Asia





# **EBRD** investments in renewables in Central Asia

**Promoting Green Transition in Kazakhstan** 



| LEGISLATION  | POLICY DIALOGUE ACTIVITIES  |  |  |  |
|--|---|--|--|--|
| Introduction of feed-in tariff system with uniform structure   | <ul> <li>Assisting for drafting of secondary legislation implementing the<br/>renewable energy law (2009)</li> </ul>  |  |  |  |
| <ul> <li>2011-<br/>2013</li> <li>Launch of operational legal framework with a set<br/>of rules and norms on renewable energy</li> <li>Introduction of (i) fixed feed-in tariffs, (ii)<br/>development of the Financial Settlement Centre<br/>off-taking energy via (iii) development of Power<br/>Purchase Agreements agreement</li> </ul> | <ul> <li>Advice to the Government of Kazakhstan on Developing FiTs for<br/>Renewable Energy Sources (2010)</li> <li>Advising on improvement renewable energy primary legislation (2011)</li> <li>Advising on a renewable energy sources allocation (2013)</li> </ul>  |  |  |  |
| Introduction Law on supporting the use of<br>Renewable Energy  | <ul> <li>Modelling the social impact of renewable energy feed-in tariffs (2013)</li> </ul>  |  |  |  |
| • Introduction of full indexation of feed-in tariffs against inflation   | <ul> <li>Assisting in the final stage of developing renewable energy legislation<br/>(2014)</li> </ul>  |  |  |  |
| <ul> <li>Introduction of the Green Economy Law which provides further supports to the development and operation of renewable energy projects</li> </ul>  | <ul> <li>Assisting Ministry of Energy on establishing a bankable regulatory and<br/>legal framework (2015-2016)</li> <li>Strategic Environmental Review (SER) of RES development in<br/>Kazakhstan (2015-2016)</li> </ul>   |  |  |  |
| <ul> <li>2018-2019</li> <li>Introduction of auction scheme for RES development.</li> <li>858MW of solar, wind, hydro and biomass capacity was auctioned.</li> </ul>  | <ul> <li>Assisting in the review of the PPA bankability (2018)</li> <li>Support for the implementation of wind auctions in Kazakhstan, including regulatory support on the tender process and documentation for the wind power projects (2019)</li> <li>Promoting gender equality in RE sector (2019)</li> <li>Strategies for carbon market development (2019)</li> <li>Memorandum of Understanding (2019)</li> </ul> |  |  |  |

# **EBRD** investments in renewables in Central Asia

## **Promoting Renewables Development in Uzbekistan**



|  |                                     |  |   |  | _  |  |   |   |  |
|--|-------------------------------------|--|---|--|--|--|---|---|--|
| 2018-2021:                                 | 1                                   |  |   |  |  |  |   |   | April 2021:  |
| Launch of                                  | Sector                              |  |   |  | <b>November 2019:</b><br>USD 96.1m loan for  |  | December 2020:<br>EUR 81.6m Vital Infrastructure Support Project<br>loan for working capital needs of the Uzbek<br>TPPs in the context of EBRD COVID-19 crisis<br>response (500,000 tC02/yr emission savings) |   | EUR 21.85m loan  |
| renewable<br>energy auctions<br>Compliance | reform                              |  |   |  |  |  |   |   | construction and<br>operation of a 100MW<br>solar project in   |
| functions                                  | October 2018:                       |  |   | ry 2019:                                     | Navoi Transmission   |  | USD 60m Nur Navoi project: equity bridge loan   |   | an (155,000 tC02/yr  |
| established                                |                                     |  |   | 40m loan for                                 |  | Upgrade Project<br>(emissions savings  |   | for the construction and operation of a pilot     |  |
| Uzbekenergo<br>unbundling                  | Uzb<br>Sub<br>( <b>10</b>           | 0 82.5m loan for<br>ekEnergo Murum<br>ostation Project<br>7,000 tC02/yr                          | Projec<br>tau climat                                    | oonisation                                   | shared with<br>UzbekEnergo Muruntau<br>Substation Project)   |  | solar auction project of 100MW installed capacity located in Navoi region ( <b>154,000 tCO2/yr</b> emission savings)  |   |  |
| Power sector<br>tariff reform              | sha                                 | ssions savings<br>red with Navoi<br>nsmission Upgrac   | de)   |  |  |  | G   | HG emissions s                                    | avings   |
|  |                                     |  |   |  |  |  | Po  | olicy dialogue / T                                | C support  |
|  | June: U<br>MoU on c<br>strategic te | 2018:2019  | 2018-2019   | 2019   | 2019 June -2020  | Nate resilience<br>he powerSeptember -<br>2020tor: riskLow-carbon<br>pathway for<br>the poweressment andpathway for<br>the power<br>sector | 2019 November -<br>2020<br>Background study<br>to inform<br>engagement on<br>water management<br>issues   | 2019-2021   | 2020-2021  |
|  |                                     | Uzbekenergo Ro<br>on compliance at<br>egic technical in<br>peration assistance via<br>e power ar | Roadmap for attracting                                  | <b>January:</b><br>MoU on                    | Climate resilience<br>in the power<br>sector: risk<br>assessment and<br>investment<br>needs action<br>plan |  |   | Support for<br>implementation of<br>wind auctions | Development of the new<br>Electricity Market Law   |
|  |                                     |  | investment<br>via corporate<br>and structural<br>reform | corporate regarding<br>structural wind power |  |  |   |   | Support in the definition<br>and implementation of<br>policies to attenuate the<br>economic impact of<br>COVID-19 in the power<br>sector |
|  |                                     |  |   |  |  |  |   |   | Review of the<br>Renewables Law  |

# **Cooperation and Support** Team Europe Initiative



### Regional:

- EFSD+
- Policy support TC/TA (PA goals, GMI, RES regulatory framework improvement, RES auctions, tariff?)

### Kazakhstan

- Grids strengthening, RES connections, regional connectivity, small and micro generation
- Balancing, Storage and +/- "round-the-clock" solutions
- Carbon neutral fuels (Green H2)
- Carbon market

## > Kyrgyzstan

- RES regulatory base and auctions
- Losses reduction
- Small and micro/distributed generation

## Mongolia:

- Grids strengthening (Choir- Sainshand, Sainshand - Tsagaan suvarga, Erdeneburen – Uliastai) and balancing
- Policy support TC/TA (RES stability)

## Tajikistan

- RES regulatory base and auctions
- Losses reduction
- Small and micro generation

### > Uzbekistan

- RES auctions
- Losses reduction
- Grid strengthening and balancing
- Carbon neutral fuels (Green H2)
- Small and micro generation





OFFICIAL USE

## Contacts



### Yerlan Ramazanov

Associate Director, Regional Head Energy Eurasia, Middle East and Africa Sustainable Infrastructure Group Tel: +7 777 224 2724 Email: <u>RamazanY@ebrd.com</u>

