Working with the EBRD in Central Asia: Spotlight on Opportunities in Energy Sector

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EBRD at a glance

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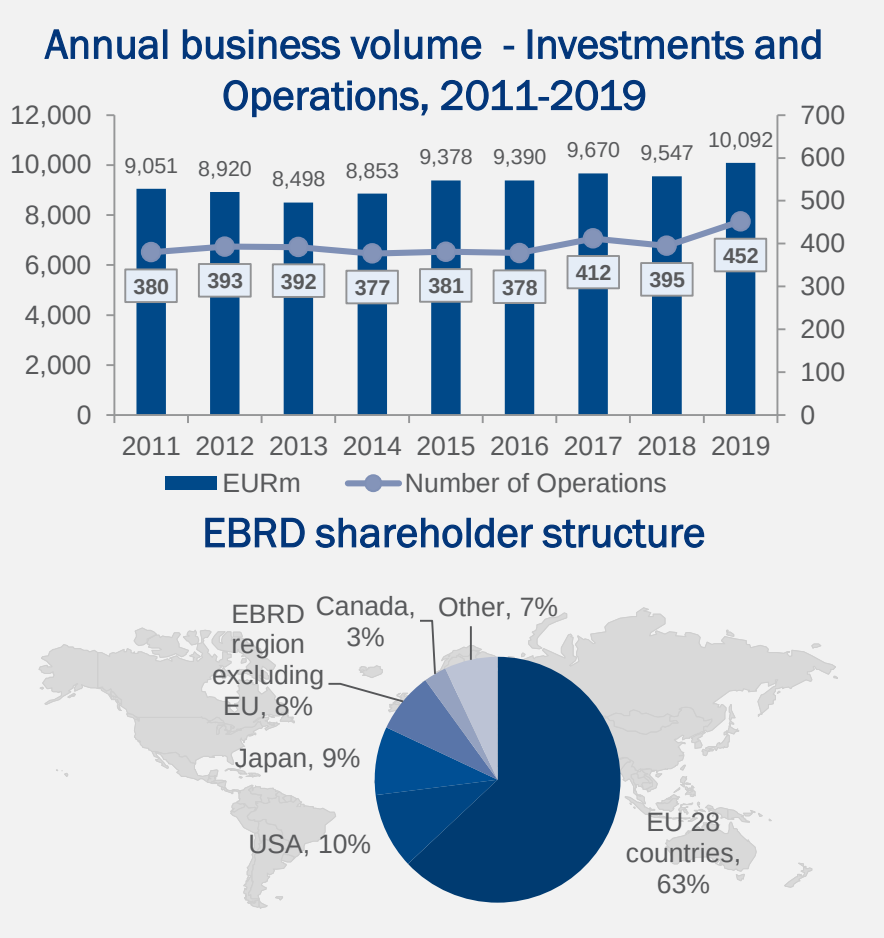
- EBRD is an AAA/Aaa rated bank by all major three rating agencies (S&P, Moody's and Fitch).
- Capital base accounts to €30 billion.
- Operating in 38 economies from central Europe to central Asia, EBRD promotes:
  - ✓ **Transition** to market economies;
  - ✓ **Mobilisation** of significant **FDIs**;
  - ✓ **Improvement** of people's lives through municipal services enhancement;
  - ✓ Environmentally sound and **sustainable development**.
- EBRD has invested over €147 billion in more than 5,861 projects since 1991.
- EBRD is owned by 69 countries and two inter-governmental institutions.



EBRD investments in energy in Central Asia

Operational approach

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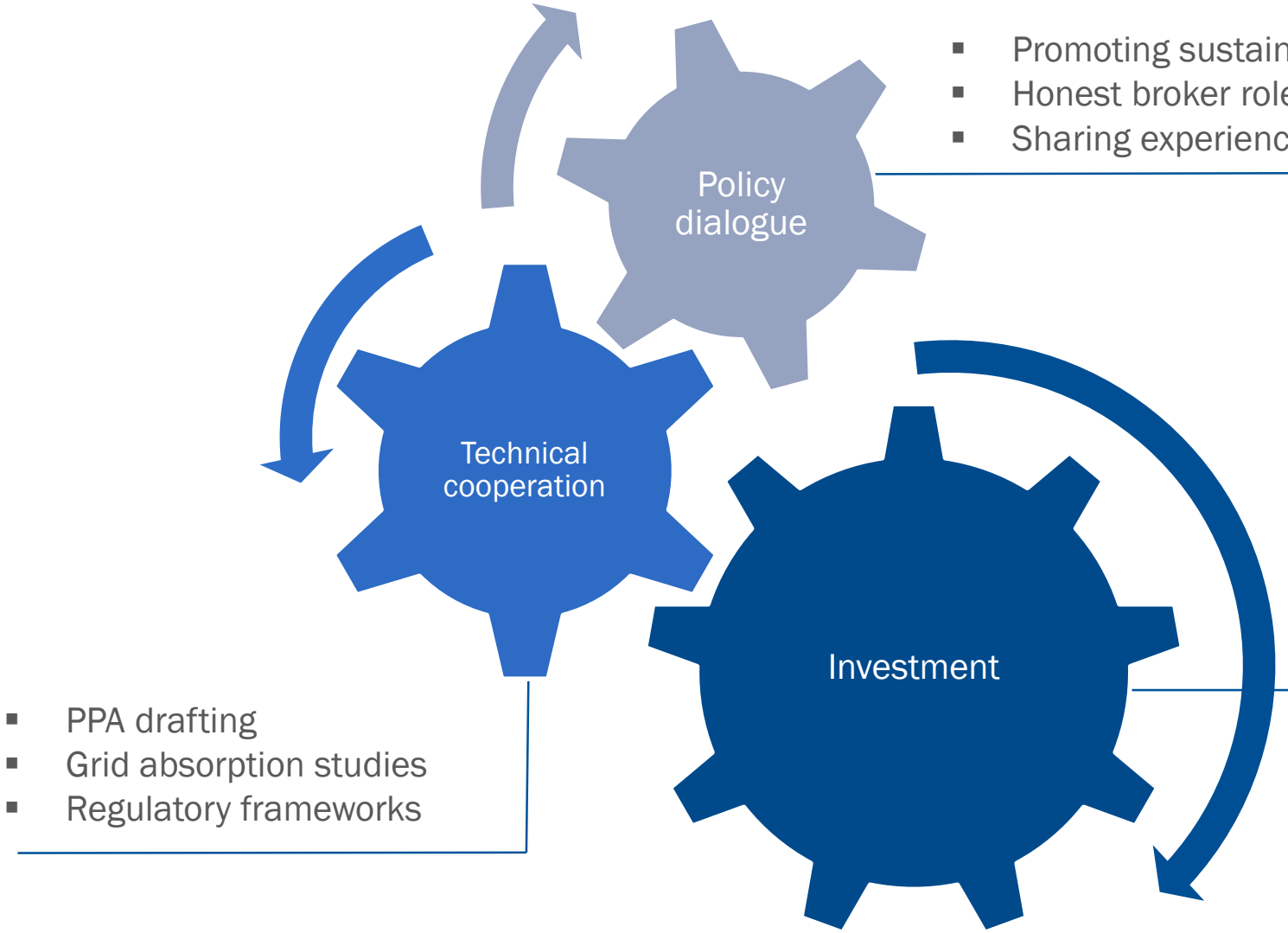

- Promoting sustainable energy
- Honest broker role
- Sharing experience and best practice

- Development equity
- Mezzanine
- Project finance
- Corporate loan
- Equity
- RE frameworks
- Small Financing Facilities

- PPA drafting
- Grid absorption studies
- Regulatory frameworks

EBRD investments in renewables in Central Asia

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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 solar technologies
- Carbon footprint and emission reduction
- Supply of carbon credits to the carbon credit market currently being launched

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

2014-2020

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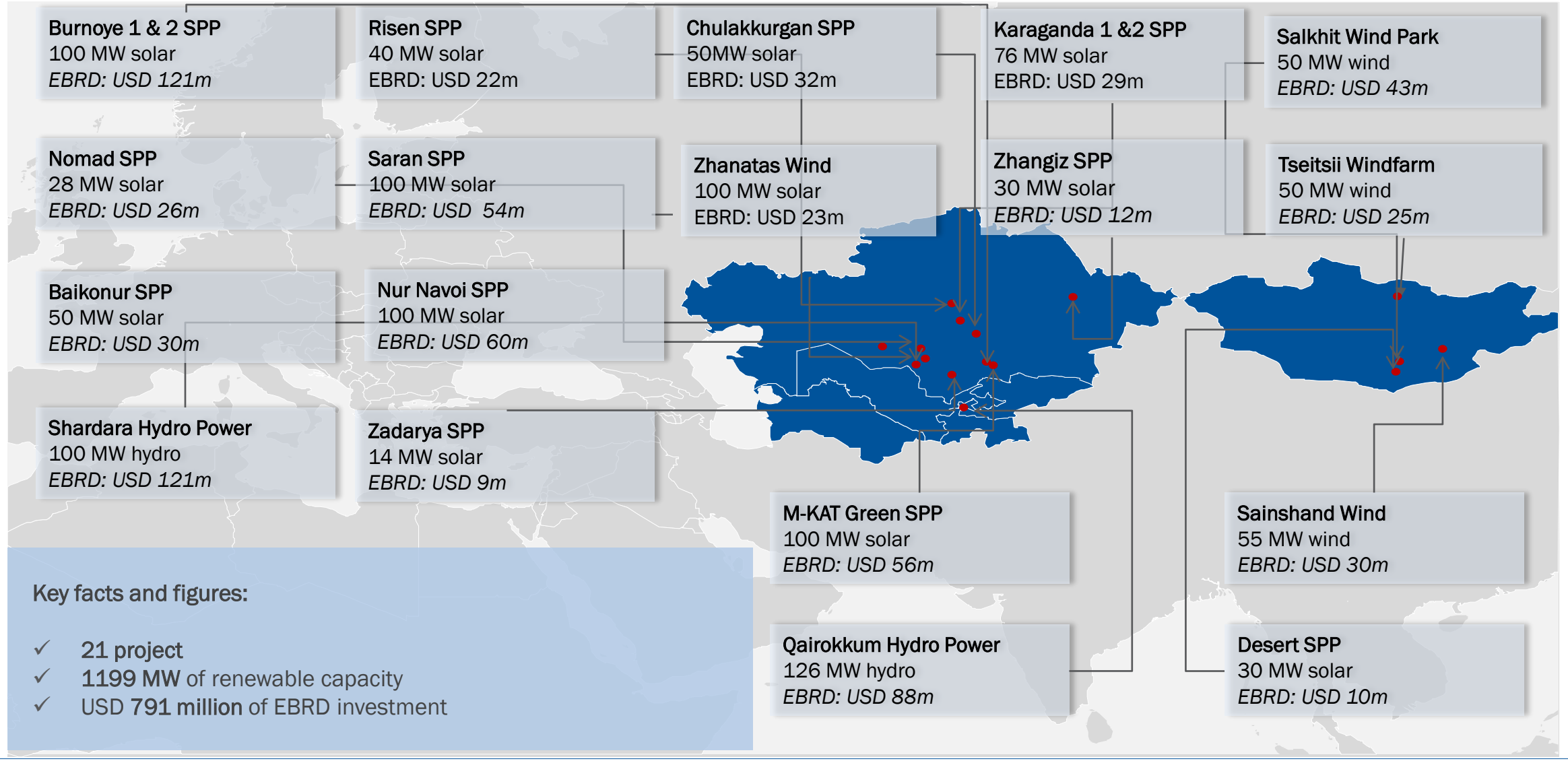

Energy in Kazakhstan
Opportunities and Challenges

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Baseline situation:

- 9th largest country in the world by territory
- Extremely cold winters, routinely below -40C
- **Coal-fired power plants**, constructed during the Soviet Union, provide over 70% of electricity
- High **carbon/ energy intensity**

Photo: "Smog over Almaty" Source: wikimedia.org.

Challenges/ Opportunities:

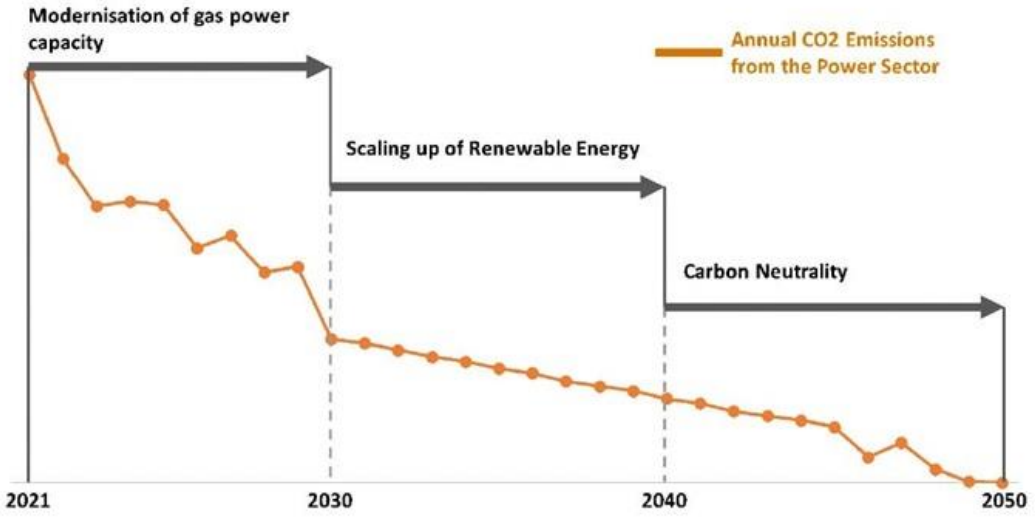
- **Carbon neutrality** by 2060
- Target of **10% RES** in Kazakhstan's renewable energy balance by 2030
- Worsening environmental situation
- Aged existing infrastructure

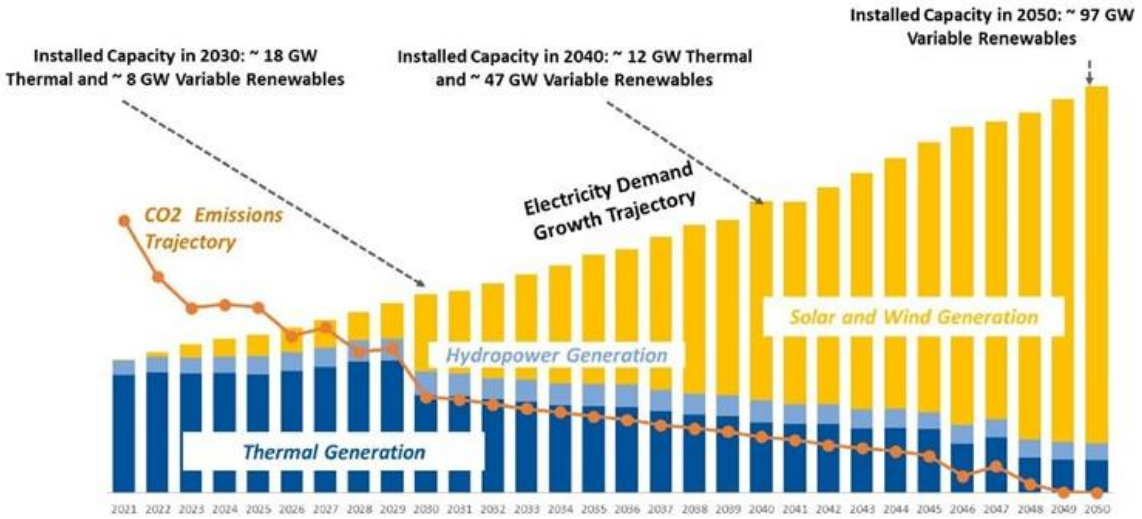
What is required to unlock the potential?

- **Decarbonisation** of energy sector
- Attracting reputable foreign and local **investors**
- Attracting "know-how" and the **best available technology** on the market
- Any future investments to be aligned with the **Paris climate agreement**

Uzbekistan Energy Transition: Low Carbon Pathway

Carbon intensity of the power sector





Developed with assistance from the EBRD and funding from Japan, the **Low-Carbon Pathway** of the energy sector in Uzbekistan envisages:

- early retirement of older and inefficient capacity
- construction of new high-efficiency gas-fired capacity in the short term
- ramp up of supply from renewable energy
- energy sector carbon neutrality by 2050

The current national policies up to 2030 are consistent with the decarbonisation scenarios to reach carbon neutrality by 2050.

The proposed renewable auctions are fully in line with the Low-Carbon Pathway.

On 1 February 2021, GoU and EBRD signed a **memorandum of understanding on the long-term decarbonisation strategy** for the power sector. Its objectives focus on:

- development of RES including new targets beyond 2030
- battery storage, hydrogen and other innovative technologies
- grid enhancement solutions
- modernisation and repurposing of the gas-fired generation fleet, and other objectives.

Case Study

Uzbekistan – support with wind auctions

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To fully harness Uzbekistan's wind potential as the country plans to generate 21% of its energy needs from renewables sources by 2031 primarily represented by solar and wind.

1 **The Bank is supporting the first "turnkey" energy auction for a wind farm in Karakalpakstan region**

- Technical cooperation assignment: assistance with site selection, environmental assessment, auction design and implementation support
- JSC National Electric Grid Company of Uzbekistan (NEGU), as signatory to the PPA for the term of 25years. Ministry of Investment and Foreign Trade, as signatory to Government Support Agreement (GSA), on behalf of GOU.

2 **Private sector feedback**

- 70 companies expressed interest to participate

3 **Financing package offer**

EBRD loan financing

B loan financing

Case Study

Karakalpakstan Wind Power Plant – 100 MW

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Project scope	• Develop, finance, construct, own and operate 100 MW wind power plant.
Location and site specifics	• Located in the Qorao'zak district of Karakalpakstan region. • The area has wind speed of about 7.6 m/s measured at hub height within the area at 112m above ground level.
PPA term and tariff	• 25 years • Tariff will be 100% indexed to USD but payable in Uzbek Som.
Public Partners	• JSC National Electric Grid of Uzbekistan ("NEGU") as signatory of the PPA. • The Ministry of Investment and Foreign Trade ("MIFT"), as signatory of the GSA on behalf of GOU.
Support Structure	• GOU will provide support under GSA, including bankable termination provisions and support in land allocation. There will be liquidity support in the form of a Letter of Credit from an acceptable bank.
Tender Stage	• 70 submissions received for the EOI and published on 20 May 2020. Currently, the project is in the request for pre-qualification ("RfQ") stage (RfQ submission date was 10 Nov 2020).

Energy in Tajikistan

Scaling up hydropower sector climate resilience

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Qairokkum Rehabilitation and Climate Resilient project

- Support to the **Tajik state-owned power utility** by financing the rehabilitation and upgrade of dam structure and turbine and hydro-electric equipment. This will increase capacity of Qairokkum HPP from 126MW to 170MW and strengthen the plant's resilience against the projected impacts of climate change.

Key Climate Resilience Measures

- Design of the upgrade to include climate resilience considerations by modelling future hydrology under a range of climate change scenarios and hydrological models.
- Capacity building on climate and hydrological data collection and usage, reservoir management and dam safety, including twinning programme with staff of world-leading HP operator Hydro Quebec.

Co-financing from the GCF and CIF

The project was co-financed by the **Green Climate Fund** in the amount of USD 50 million and the **Climate Investment Funds** with a grant of USD 11 million and concessional loan of USD 10 million.

Energy in Tajikistan

CASA-1000 Project: cross-regional hydropower trade

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- **Client:** OSHC Barki Tojik, a state-owned vertically integrated power utility responsible for generation, transmission and distribution of electricity in Tajikistan.

- **Project:** the EBRD finances the construction of the AC/DC converter station and supporting infrastructure in Tajikistan, as part of the high-voltage transmission infrastructure for the Central Asia South Asia Electricity Transmission and Trade Project ("CASA-1000"). USD 110 million EBRD loan is co-financed with WB, EIB, IsDB and other funding.

- The construction of the transmission infrastructure in Tajikistan **shall enable summer electricity export from the hydropower surplus countries of Tajikistan and Kyrgyz Republic to electricity deficient countries of Afghanistan and Pakistan.** The project has a comprehensive cross-regional dimension in facilitating electricity trade between the four neighbouring countries.

Contacts

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