Clean energy investments in Central Asia

United Nations Economic and Social Commission for Asia and the Pacific: Sustainable and Clean Energy in North and Central Asia

June 2021

European Bank
for Reconstruction and Development

EBRD at a glance

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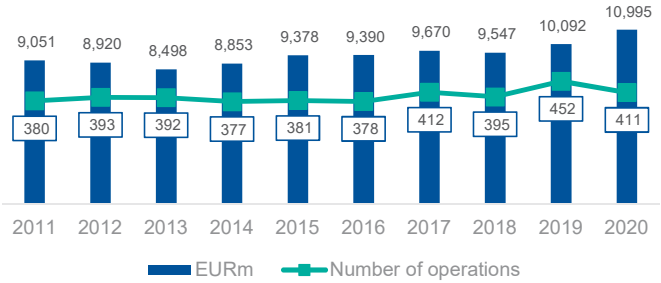
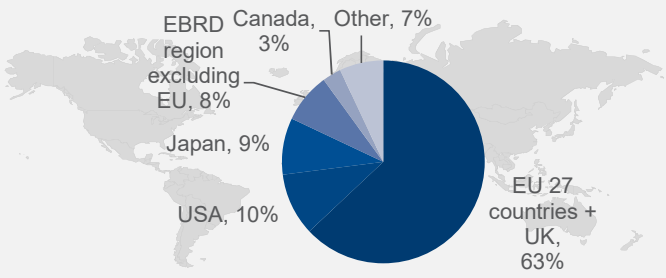
- EBRD is an **AAA/Aaa** rated bank by all major three rating agencies (S&P, Moody's and Fitch).
- Capital base accounts to **€30 billion.**
- Operating in **38 economies** from central Europe to central Asia, EBRD promotes:
  - ✓ **Transition** to market economies;
  - ✓ **Mobilisation** of significant **FDIs**;
  - ✓ **Improvement** of people's lives through municipal services enhancement;
  - ✓ Environmentally sound and **sustainable development.**
- EBRD has invested **over €147 billion** in more than 5,984 projects since 1991.
- EBRD is owned by **69 countries** and two inter-governmental institutions.

Annual business volume - Investments and Operations, 2011-2020



EBRD shareholder structure



EBRD investments in energy in Central Asia

Operational approach

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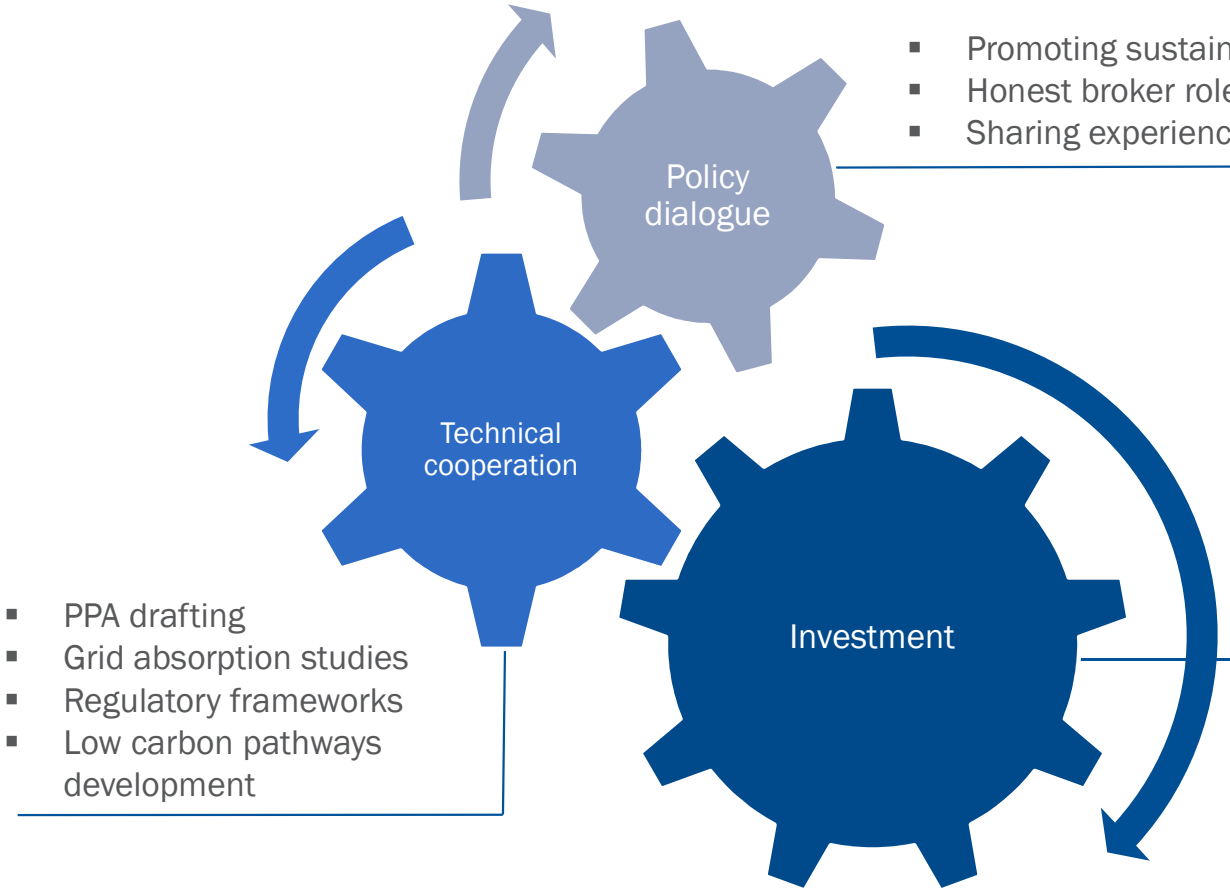

- Promoting sustainable energy
- Honest broker role
- Sharing experience and best practice

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

- PPA drafting
- Grid absorption studies
- Regulatory frameworks
- Low carbon pathways development

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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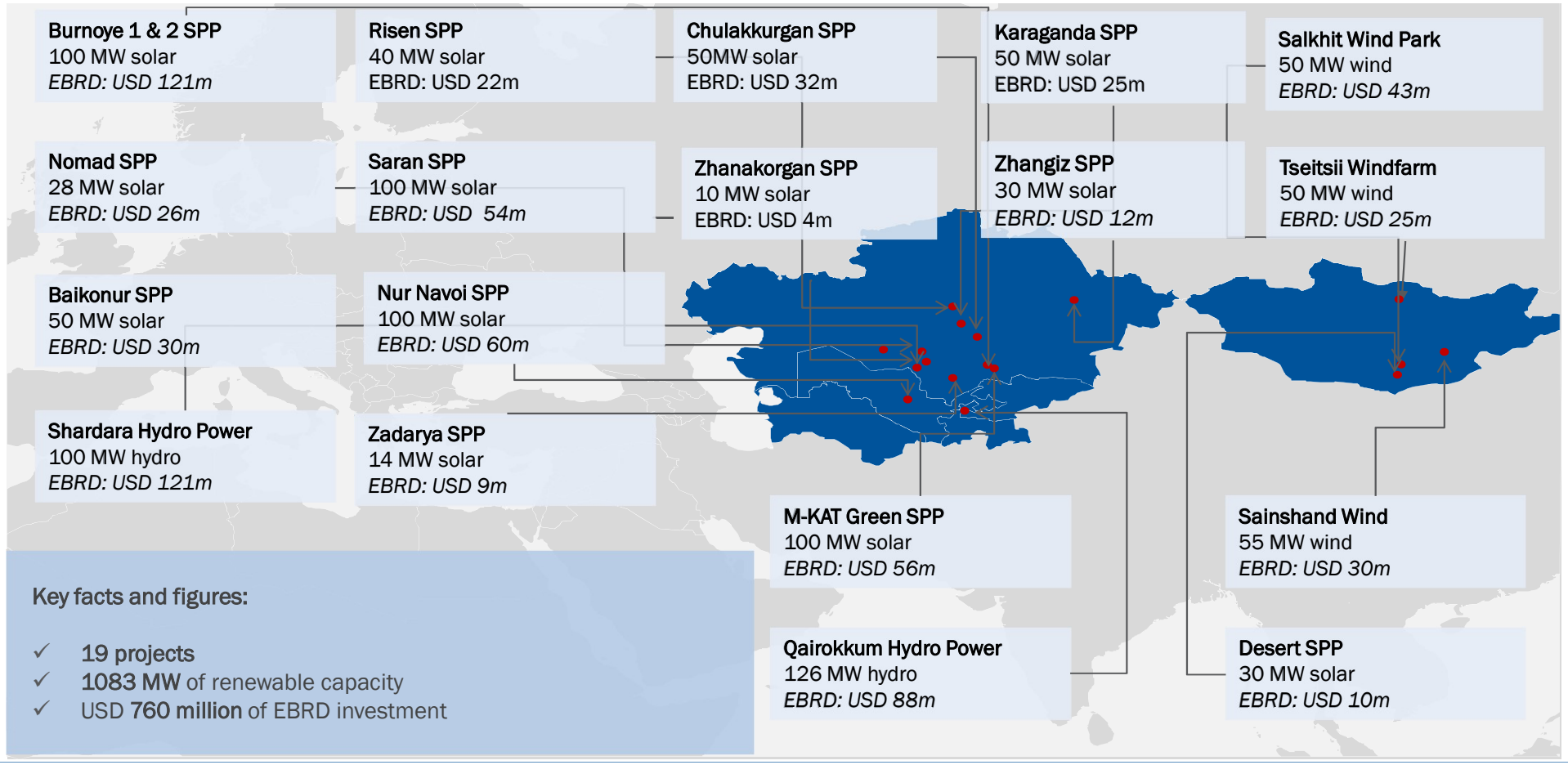

Uzbekistan Energy

EBRD investment projects coupled with policy work

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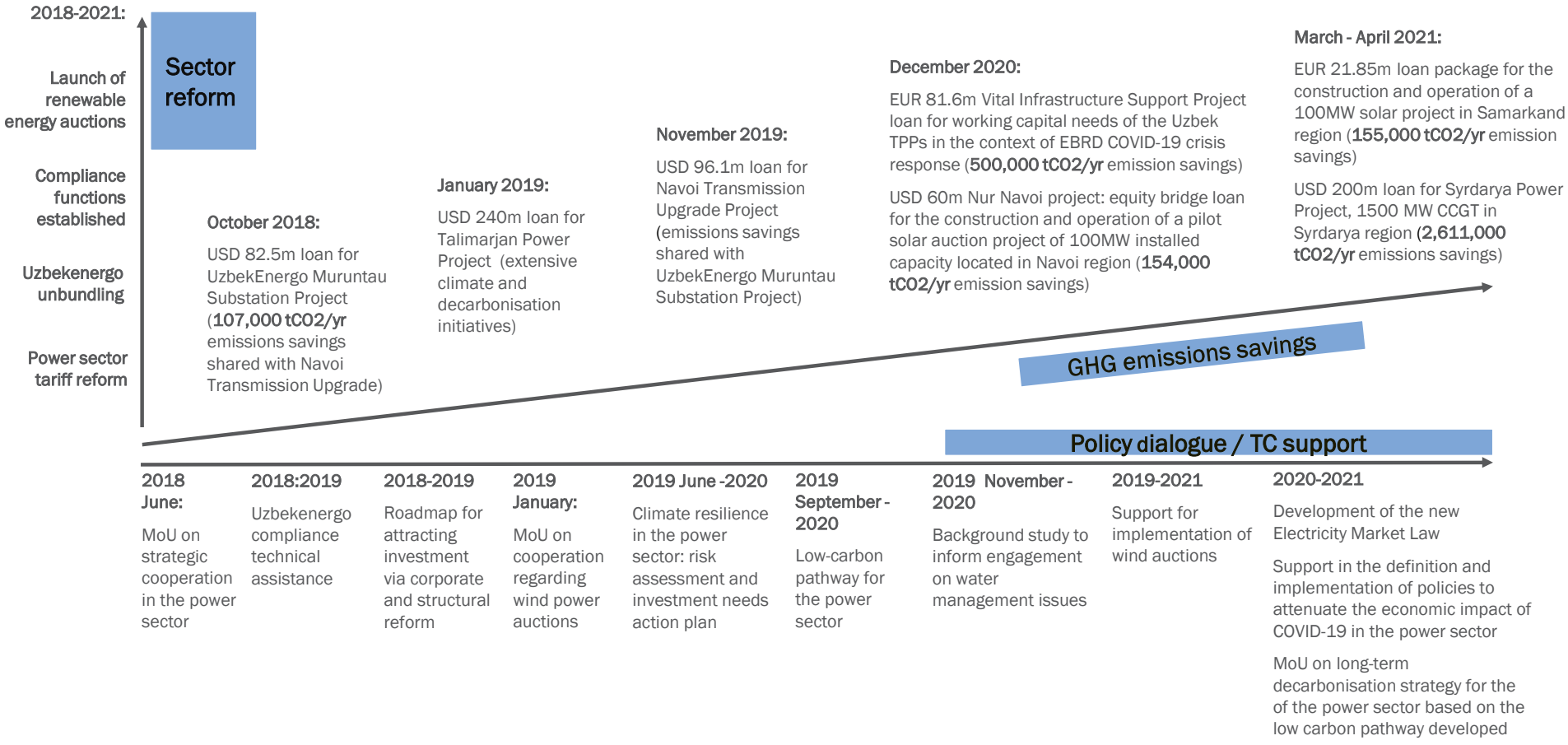

Uzbekistan Energy Transition: Low Carbon Pathway

Carbon intensity of the power sector

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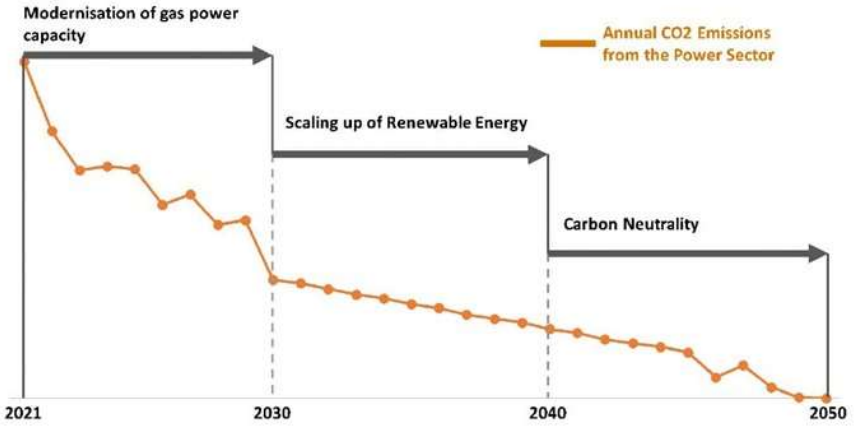

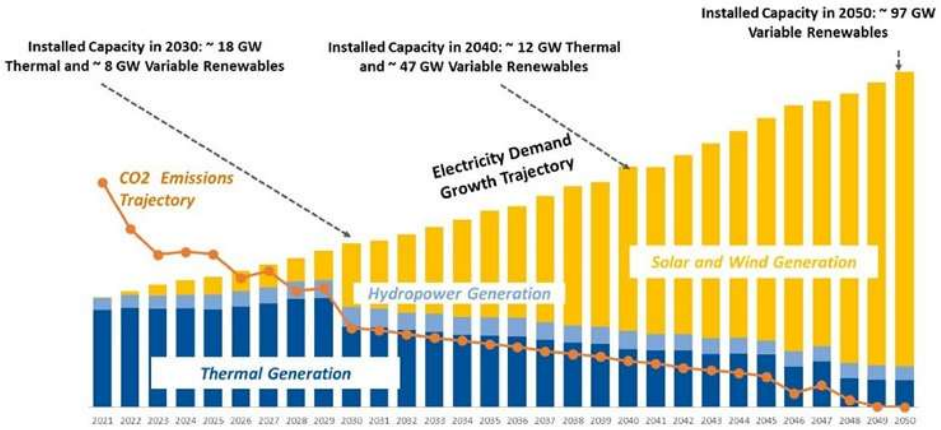

Developed with assistance from the EBRD and funding from Japan, the **Low-Carbon Pathway** of the energy sector in Uzbekistan envisages:

- 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.

Uzbekistan Experience with Solar and Wind Auctions

Results to date and plans

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Tenders completed to date

Project	Location	MW	Results announced	USDc/kWh	Winning bidder
Scaling Solar I	Navoi	100	Oct-19	2.68	Masdar
ADB PPP Programme	Sherabad	457	May-21	1.8045	Masdar
Scaling Solar II	Jizzakh	220	May-21	1.823	Masdar
Scaling Solar II	Samarkand	220	May-21	1.791	Masdar
Total auctioned capacity:		997			

On-going tenders

- 100 MW Karakalpakstan wind tender, RfP stage

Tajikistan Energy

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.

Contacts

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