

# Renewable Energy in Central Asia

## Context

Five countries of Central Asia - Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan - face significant environmental challenges, including high levels of pollution and impacts of climate change. Moreover, their reliance on fossil fuels and fluctuating energy prices contribute to geopolitical tensions and economic instability. But at the same time the region holds substantial untapped potential for renewable energy, particularly in solar and wind power, due to its geographic and climatic conditions. Harnessing this potential is crucial not only for reducing carbon emissions but also for enhancing energy security and fostering economic growth in the region. Therefore, the transition towards a renewable energy sources is a perspective way for country's energy development and remains a high priority.

## Our objective

Improved conditions for integration of renewable energies into the electricity grids of Central Asia are in place.

## Our Measures

Advancing renewable energy integration address both environmental and socio-economic challenges, contributing to an eco-friendly and resilient future for Central Asia. Therefore, the project team and experts advise political decision-makers, electricity grid operators, and state actors in creation of a supportive environment for renewable energy adoption. The work is focused on the following directions:

1. Development of regionally coordinated decision-making strategies and routines to improve the planning, monitoring,

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Commissioned by	German Federal Ministry for Economic Cooperation and Development (BMZ)
Project region	Republic of Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, Uzbekistan
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and operational management processes for the integration of renewable energy sources into the Central Asian power grids. Such is planned through conduction of study tours, workshops, analysis of national regulatory frameworks, promotion of digitalization and advising ministries.

2. Development of national rulebooks and strategies to improve legal and institutional framework conditions, which will help to increase public and private investment in renewable energy, digitalization, and energy efficiency in all Central Asian countries.
3. Structurally improving learning of research institutions active in the field of energy system and policy analysis. The focus is to enable a new regional energy system analysis research network to jointly develop green transformation and energy transition scenario studies relevant to Central Asia.
4. Planning and implementing national gender-sensitive information campaigns on the potential of renewable energy, energy efficiency and digitalization in the electricity sector.

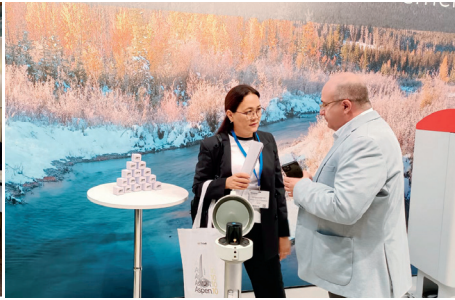
These measures effectively tackle the various challenges of switching to renewable energy in Central Asia.



*L. to r.: Solar panels and collectors at Green Yurt Camp in Issyk-Kul region. Kyrgyzstan.*

*Pg 2: Workshop on climate risk assessment, Tashkent, 2024.*

*Meteorological Technology World Expo, Geneva, 2023.*



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## Expected Results

The successful implementation of this project is expected to generate significant outcomes across several key areas. Firstly, it will improve the skills and knowledge of decision-makers and grid operators, helping them better manage renewable energy integration. This enhancement will ensure a seamless transition away from fossil fuels, facilitating more effective planning, monitoring, and operational management of renewable energy projects.

Moreover, the project will create a better environment for investment opportunities by improving regulations, attracting more investments in renewable energy. Clear policies will reduce risks and encourage private sector involvement, speeding up the development of sustainable energy projects in the region.

Additionally, comprehensive information campaigns will elevate public and stakeholder awareness, promoting greater acceptance of renewable energy solutions. Educated and informed citizens are more likely to support and participate in renewable energy projects, thereby contributing to the success of the energy transition.

Lastly, the project will strengthen regional cooperation through the establishment of a research network and coordinated planning efforts among Central Asian countries. This collaborative approach will lead to more effective and unified energy policies and strategies, facilitating the sharing of best practices, resources, and expertise which, in turn, will amplify the impact of renewable energy initiatives.

By addressing these areas, our project aims to contribute significantly to the sustainable development and energy security of Central Asia, positioning the region as a leader in renewable energy adoption. The project's success will have broader social, economic, and environmental benefits, fostering a resilient and sustainable future for Central Asia.

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