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# ENERGY SECTOR IN CENTRAL ASIA AND THE ROLE OF WOMEN IN ENERGY

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*OCTOBER 17-18, 2024*

# USAID POWER CENTRAL ASIA ACTIVITY

PCA's main goal is to help Central Asian countries to:

- Meet their energy priorities to improve energy security
- Realize economic benefits from regional electricity trade

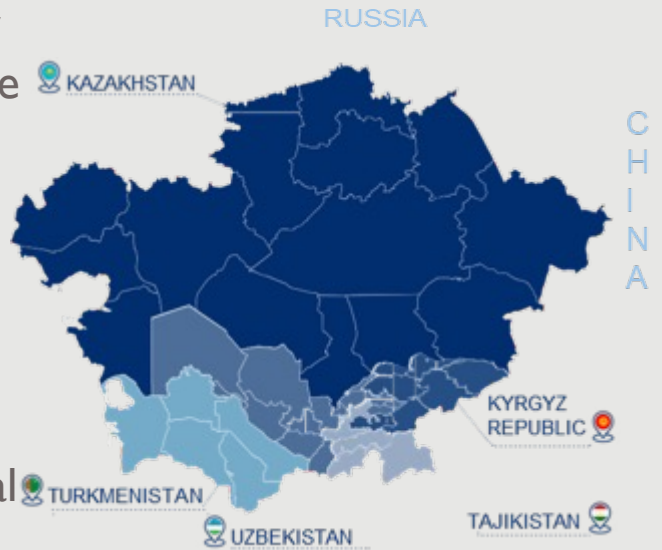
**Three objectives:**

1. National Market Liberalization Reforms
2. Clean Energy
3. Regional Power Market

**Cross-cutting activities:** education, gender, support for local companies and creation of conditions for investment.

**Implementation period:**

October 1, 2020 – September 30, 2025



# CENTRAL ASIA AMBITIOUS CLEAN ENERGY TARGETS



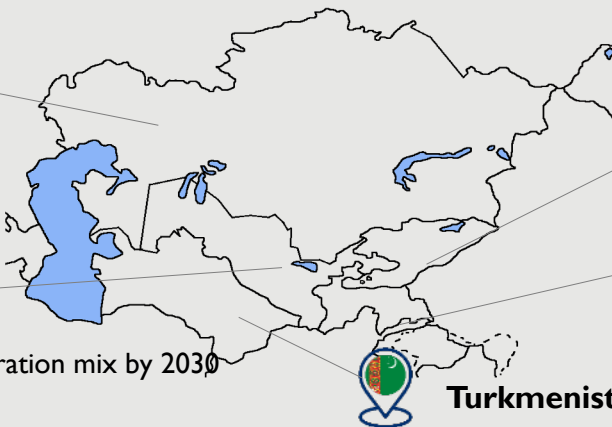
## Kazakhstan

- 6% in energy mix by 2025,
- 15% by 2030,
- 50% by 2050,
- Carbon neutrality by 2060



## Uzbekistan

- 8 GW by 2026
- 25 GW or 40% RE in generation mix by 2030
- Carbon neutrality by 2050



## The Kyrgyz Republic

10% RE share by 2030



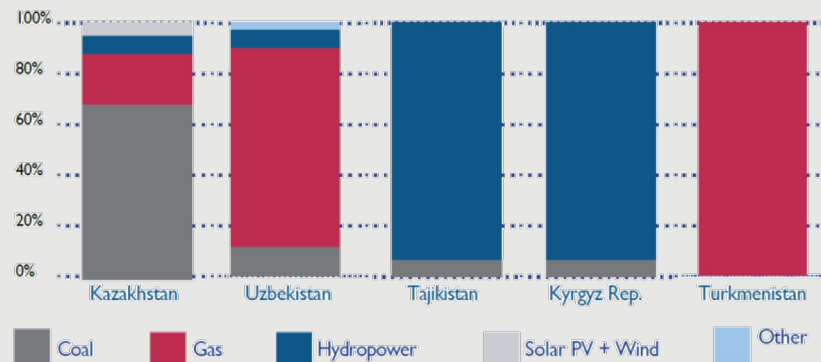
## Tajikistan

- 10/10/10/10 - by 2030
- 700 MW of RE capacity (non-hydro) by 2030.

**Turkmenistan** announced no targets to date

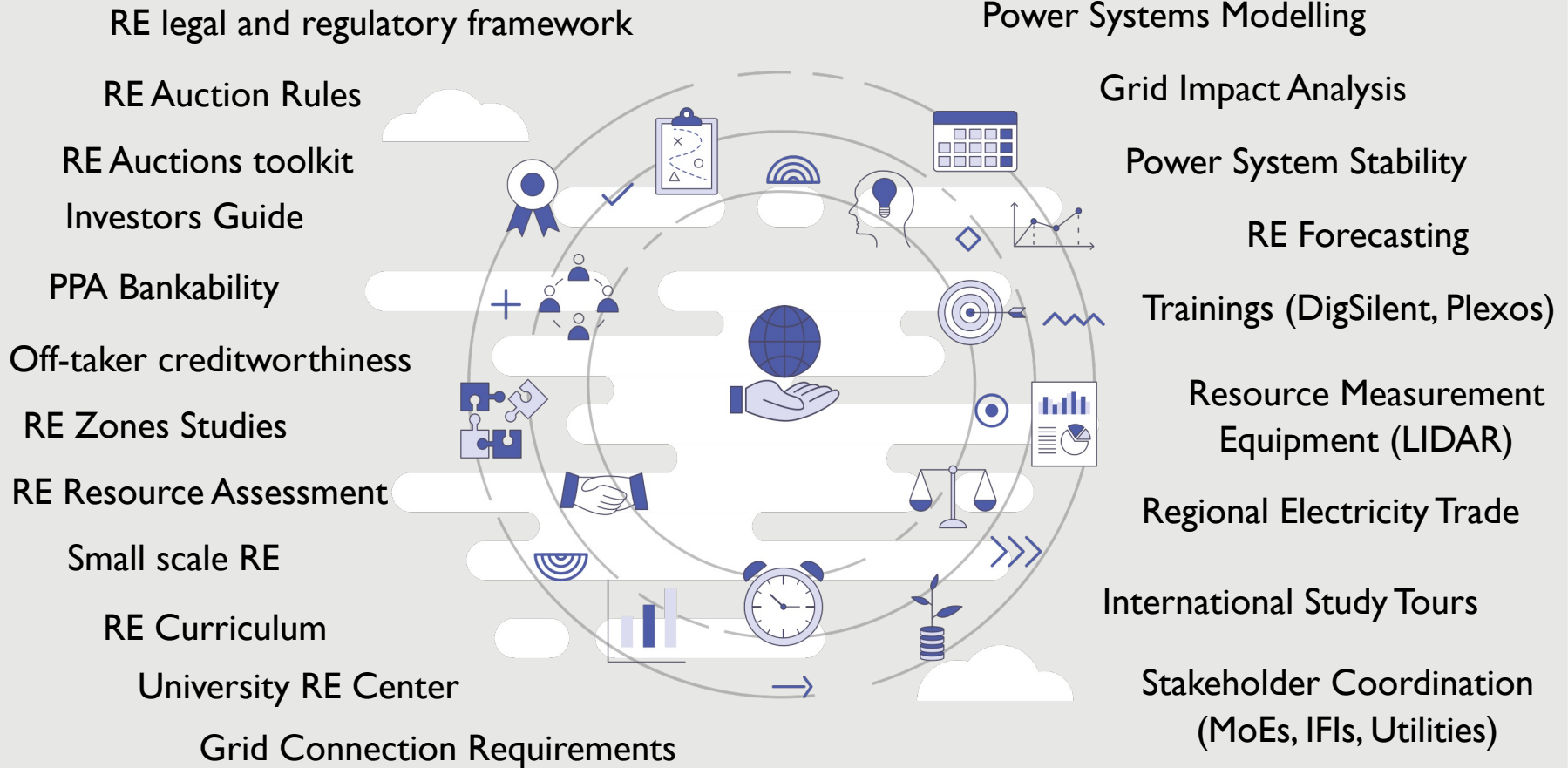
## POWER GENERATION STRUCTURE & NUMBERS

COUNTRY	INSTALLED * CAPACITY (MW)	ELECTRICITY GENERATION (bln kWh)
KAZAKHSTAN	24 641	112.8
KYRGYZ REPUBLIC	3 955	13.8
TAJIKISTAN	6 125	21.9
TURKMENISTAN	6 948	32.1
UZBEKISTAN	16 609	78.0
<b>TOTAL</b>	<b>57 627</b>	<b>255.7</b>



\* Data as of end of 2023\*

# USAID'S ROLE IN INCREASING RENEWABLES IN CA

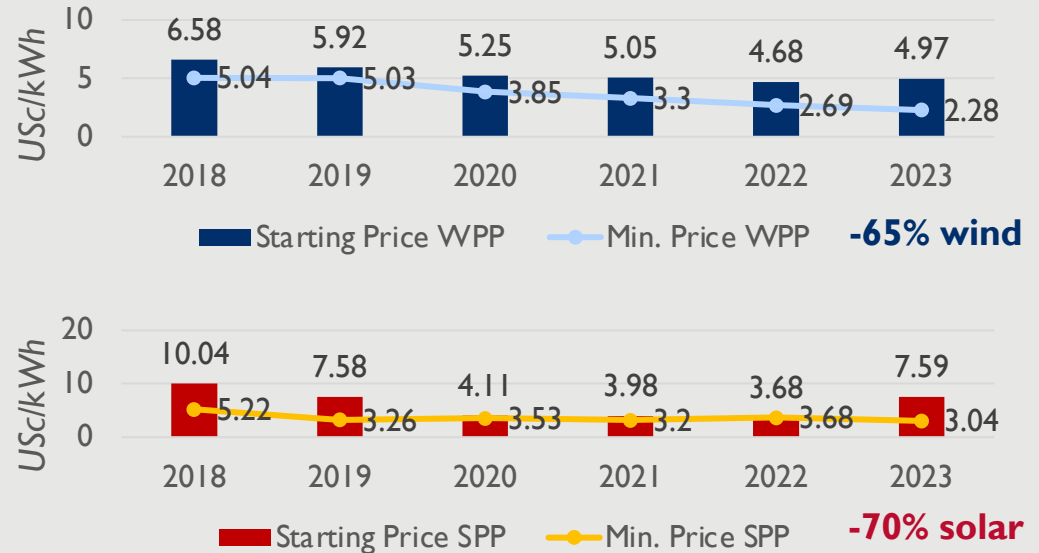


# KAZAKHSTAN: RENEWABLE ENERGY AUCTIONS

## GOVERNMENT SUPPORT MEASURES

- From FiT to competitive auctions
- RE auction Rules and Schedule
- On-line auction toolkit
- Site-specific auctions in 2019
- Single buyer guaranteed purchase
- Reserve fund of single buyer
- Guaranteed financial support to single buyer
- Tariff indexation
- PPA – from 15 to 20 years
- Reservation of RE sites with grid connection
- Investment preferences (exemption from tax duties and VAT on import)
- RE workshops and Investor's Guide

## RE auctions price dynamics



- **3255 MW** proposed, **2503 MW** procured (2018-2023)
- **260** companies from **13** countries participated
- RE prices decreased comparing FiT (starting ceiling)
- RE share in power generation reached 5,92% in 2023

# UZBEKISTAN: FAST GROWING RENEWABLES MARKET

## KEY FEATURES

- Power sector reforms to enable competition and increased private investment
- Plans - 25 GW of renewables by 2030
- RE law and PPP law (2019)
- Bankable PPA 25 - year, “take or pay”, international arbitration, tariff denomination
- State support agreements for RE investment

## STATUS AND PLANS

- **Solar PV:** 6447 MW contracted; 8640 MW planned for 2030
- **Wind:** 4200 MW Contracted, 17 000 MW planned by 2030
- **BESS:** contracted 1440 MW,
- **Hydro:** contracted 78 projects (construction and modernization) for 2 92 MW, 4999 MW planned by 2030.





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# SUPPORTING WOMEN AND YOUTH IN CLEAN ENERGY IN CENTRAL ASIA

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# GENDER GAPS PERSIST IN THE ENERGY SECTOR INTERNATIONALLY

**22% of workers in oil and gas and 32% in renewable energy**

**Less than 30% in research**

**28% of employees in technical specialties (STEM)**

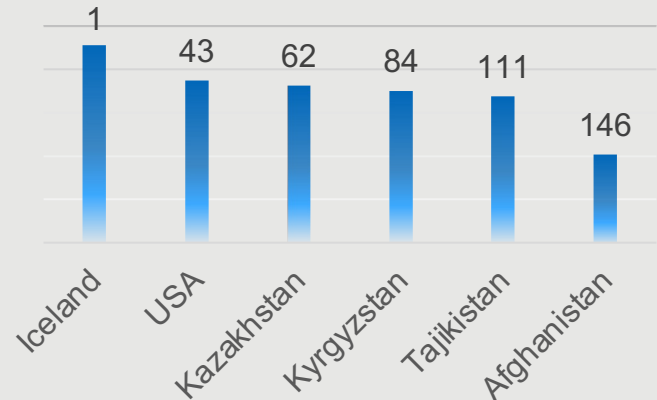
**Less than 30% in management positions**

**18% pay gap in STEM industries**



# CENTRAL ASIA AIMS TO CLOSE GENDER GAPS IN VARIOUS SECTORS

- In Kazakhstan, women's representation in the renewable energy sector is about 25%, in Uzbekistan - 22%, in Tajikistan and Kyrgyzstan, women's participation in the energy sector is about 30%.
- It is necessary to promote women's leadership.
- International financial institutions and donors provide technical assistance in gender areas.
- Global Gender Gap Index rating: Kazakhstan - 62, Kyrgyz Republic - 84, Tajikistan - 111 out of 146 countries (2023)



# USAID HAS A LONG-STANDING COMMITMENT TO GENDER EQUALITY AND WOMEN'S ECONOMIC EMPOWERMENT

- Implements 78 activities in three areas in more than 60 countries.
- Works with 470 private, non-governmental and local organizations, governments.
- Promotes economic empowerment of women around the world.

## Women's Success at Work

- Promoting workforce development and vocational education to provide women with the skills and training they need to obtain employment.

## Women's Success as Entrepreneurs

- Promoting women's entrepreneurship and providing women with access to capital, markets, technical assistance and networks.

## Women's participation in the economy

- To remove legal, regulatory and cultural barriers to women's full and free participation in the economy.

*2023 Gender Equality and Women's Empowerment Policy*

# USAID POWER CENTRAL ASIA CREATES OPPORTUNITIES FOR WOMEN IN ENERGY



- **Curriculum on renewable energy sources** for students of technical universities.
- **Scholarships issued to 20 students** from Central Asia for the program "Strategic management in the field of renewable energy sources and energy efficiency" at Kazakh-German University.
- **Internship program** for female students in energy ministries and electric power companies.
- **Technical trainings:** 1,688 energy specialists, including 486 women (29%), were trained in technical fields.
- **Visits to renewable energy power plants** with technical training.
- **Seminars and capacity building** on soft skills, public speaking, gender policy, the role of women in the implementation of the energy transition in Central Asia.
- **Mentoring program** (40 people from Central Asia completed the program in March - July 2023).
- **Gender Committee** under the Ministry of Energy of Kyrgyzstan.
- **Summer camp** for women in the energy sector of Central Asia.

# RECOMMENDATIONS

- Mainstreaming gender in the energy sector
- Exploring the benefits of gender and social inclusion
- Gender-specific target indicators
- STEM education for women
- Mentoring to motivate the younger generation
- Promotion and awareness to make women's work more visible

**Gender equality in the energy sector is key to sustainable development. Achieving it requires everyone to engage, unlocking potential and innovation for the benefit of everyone.**





# INVEST IN WOMEN – INVEST IN PROGRESS

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