

Presentation for the Workshop on Energy Conservation for Kyrgyz Republic

**Tokyo, Japan
2025**



ГЕОГРАФИЧЕСКИЕ АСПЕКТЫ



Kyrgyz Republic

- The population of Kyrgyzstan is **7 million 254 thousand people** as of October 1, 2024
- Territory is **199 951 km²**
- The Tien Shan and Pamir Mountains occupy about **65%** of the country's territory.

Tien-Shan



Pamirs



HYDROENERGY POTENTIAL

Potential

TOTAL HYDROENERGY
POTENTIAL

142,5 billion kWh

RANKING in the CIS

III

DEVELOPED

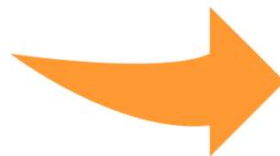
10-12 %

ON THE NARYN RIVER IS POSSIBLE TO BUILD:

7 cascades



of 27 hydropower plants



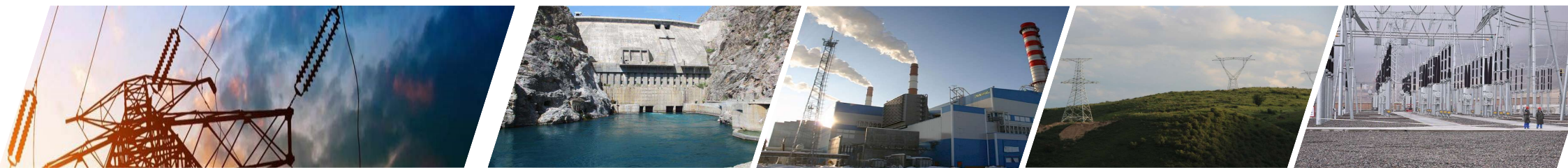
5 600 MW

Total Installed Capacity

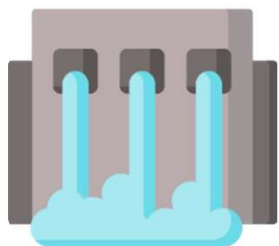


20 billion kWh

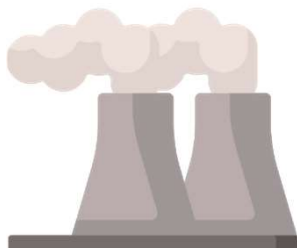
Average annual generation 20 bln kWh per year



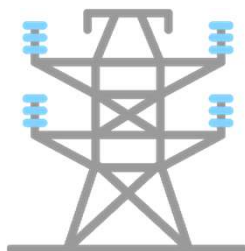
ENERGY SYSTEM of the KYRGYZ REPUBLIC



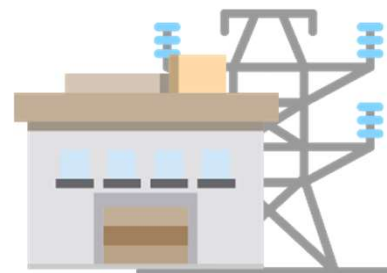
HPPs
3093 MW



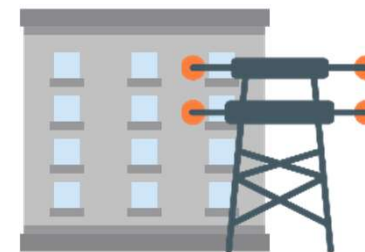
TEC
862 MW



110-500 kV
overhead lines
7 500 KM



110-500 kV substations
12498 MWA

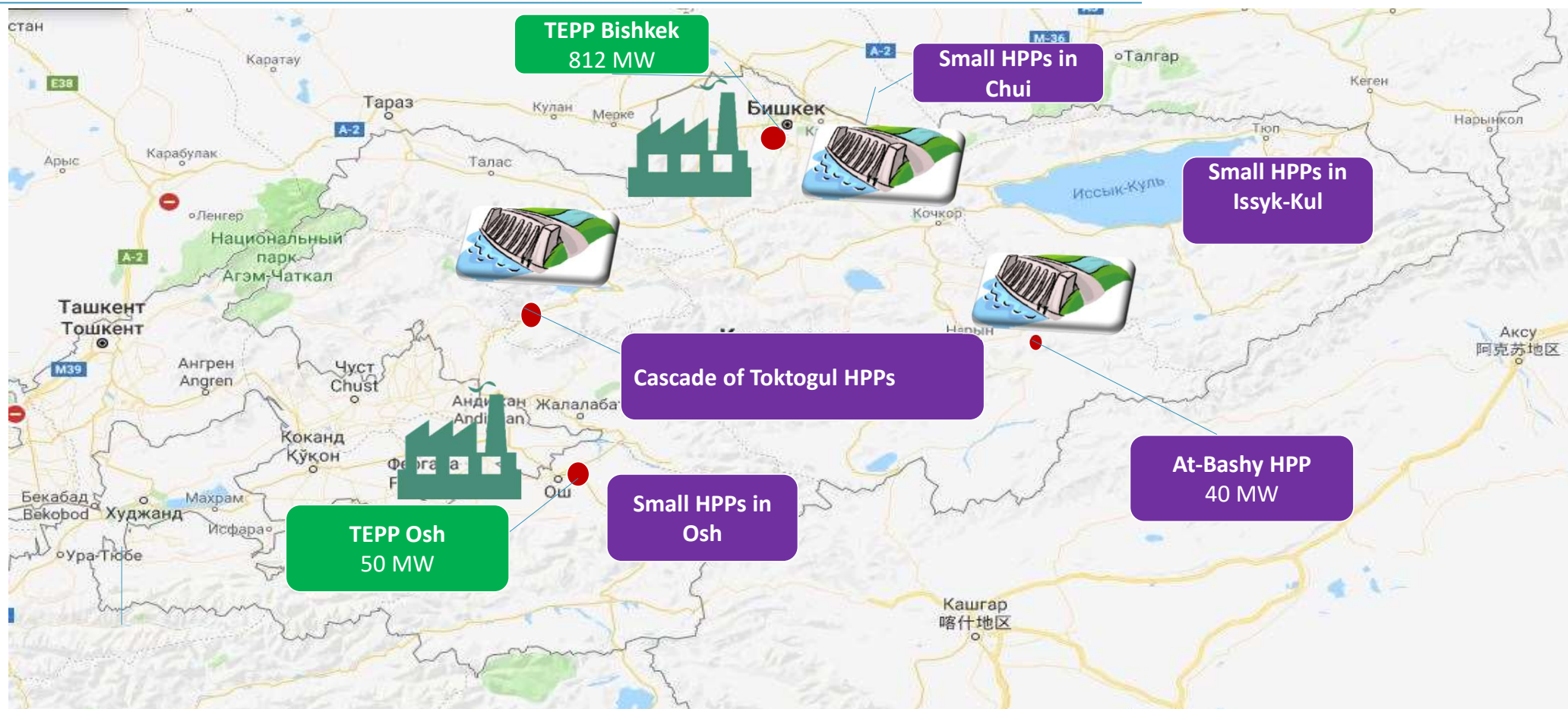


0,4-35 kV overhead lines –
59 700 km
Substations and Transformer
Substations – **23 915 pcs**

Average annual output – electric energy **14,2** bln kWh

Thermal power - **2 000** thousand hegacalories 4

Main Generating Facilities



BIG HPPs
3030 MW

SMALL HPPs
121.99 MW

TEPP
862 MW

TOTAL
4014 MW



Challenges

- ***There is a gradual depletion of water and energy resources in the region against the background of climate change and demographic growth***
- ***The effects of climate change in the region are also manifested in the form of melting of centuries-old glaciers, increase in the number of natural disasters – mudslides, floods, droughts, low water levels and reduction of water resources.***
- ***More than 90% of electric power in the country is generated by hydroelectric power plants. Depreciation of fixed assets of electric power plants.***



Program "Implementation of Energy Conservation and Energy Efficiency Policy in the Kyrgyz Republic for 2023-2027".

The target priorities of the integrated Program are:

- *1. Improving energy efficiency in the extraction and production of all types of fuel and energy resources to reduce electricity losses during transmission and distribution to 15%;*
- *2. Improving energy efficiency in the consumption of all types of fuel and energy resources to save 190.1 thousand tons of fuel equivalent by 2027;*
- *3. Developing the use of cleaner fuel and energy resources to increase the share of renewable energy in the electricity generation to at least 10% by 2027.*

Updated Nationally Determined Contribution of the Kyrgyz Republic Climate Change Adaptation Actions to Achieve the



GOAL 7:
Ensure universal access to affordable, reliable, sustainable and modern energy for all



GOAL 12:
Ensure sustainable production and consumption patterns



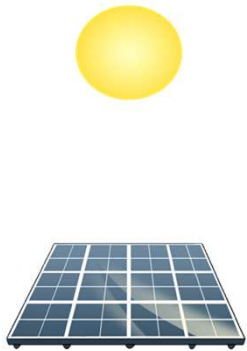
GOAL 13:
Ensure universal access to affordable, reliable, sustainable and modern energy for all



Participation of Kyrgyzstan in international initiatives to reduce emissions and promote green energy

- *Kyrgyzstan is actively involved in international efforts to combat climate change and promote sustainable energy sources. The country is a signatory to the Paris Agreement and has committed to reducing carbon emissions and transitioning to a low-carbon economy.*
- *Based on nationally determined contributions, the country plans to reduce emissions by 16% of the scenario emissions level by 2030, and 44% with international support.*
- *Carbon neutrality is planned to be achieved by developing renewable energy sources, improving energy efficiency, reducing coal consumption through gasification, reducing transmission and distribution losses, improving urban heat supply systems and raising public awareness on energy mitigation.*

RENEWABLE ENERGY CAPACITY in the KYRGYZ REPUBLIC

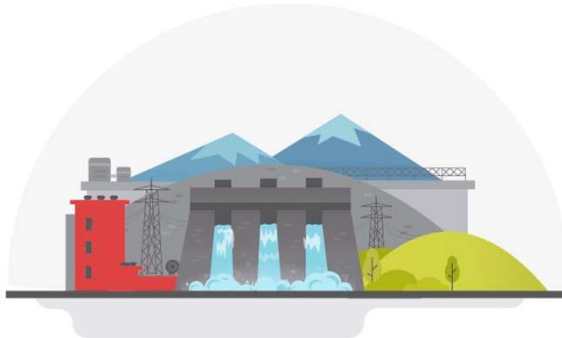


2100-2900 hours

Average annual duration of sunshine

Annual radiation to the surface

1700 kWh/sq.m



258 MW

small HPPs potential

172 rivers and water courses

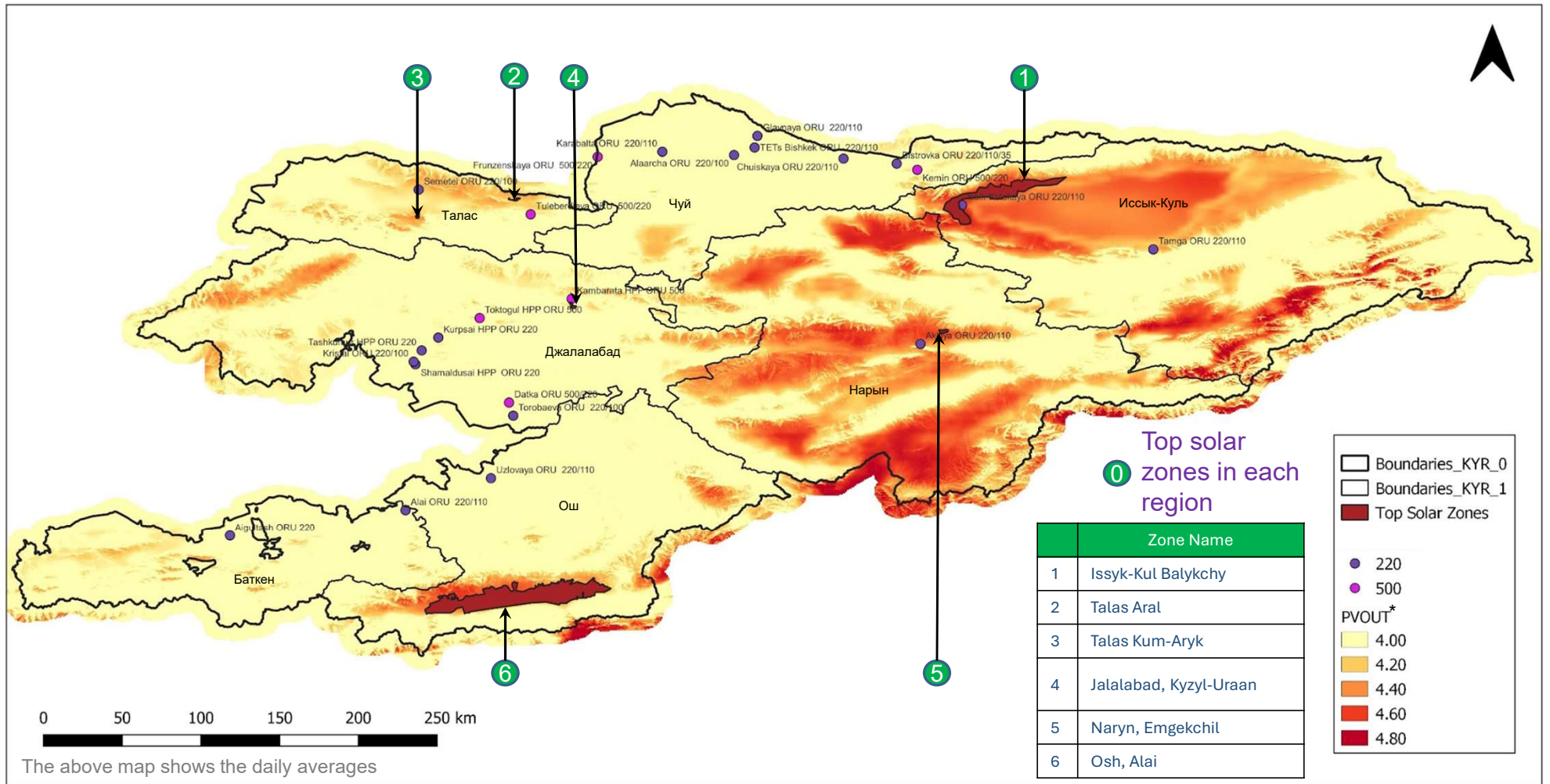
5-8 billion kWh



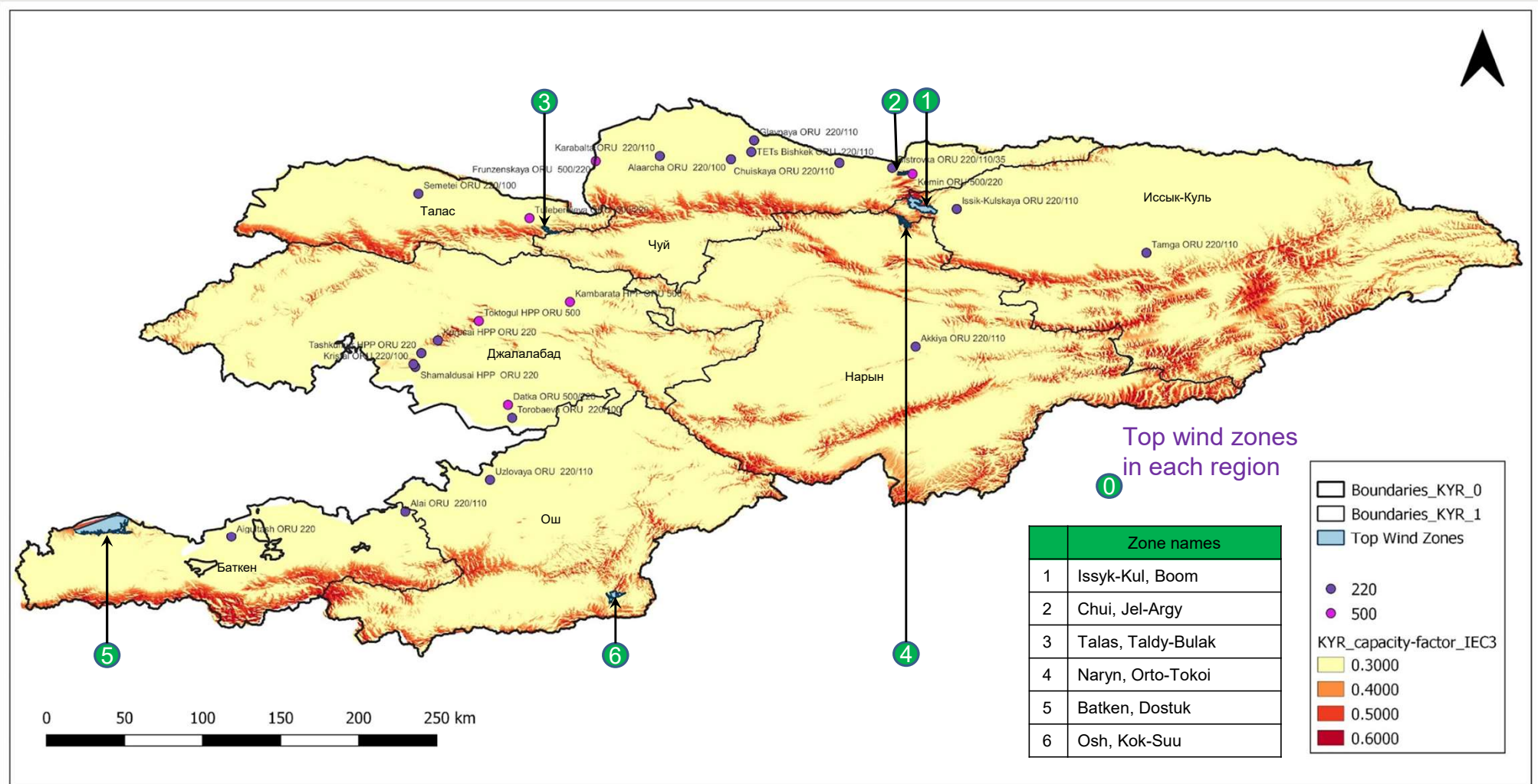
**2 thousand
MWh**

wind power potential

TOP SOLAR ZONES



TOP WIND ZONES






Preferences for Renewable Energy Sources

Kyrgyzstan offers a number of incentives for foreign investors. For example:

- *Extending the grace period by 25 years for projects using solar, wind, biomass, and earth energy;*
- *Implementation of guaranteed purchase of electric energy obtained using renewable energy sources and covered by a coefficient of 1.3;*
- *Indexation of tariffs in foreign currency to reduce currency risks.*



Development of Energy Infrastructure and Increase of Export Potential



- *CASA-1000 is designed to connect the energy systems of Central Asia with South Asia — Kyrgyzstan, Tajikistan with Afghanistan and Pakistan and to develop mechanisms for trading electricity in accordance with international standards.*
- *The total cost of the project is \$1.1 billion. Of these, \$185 million is part of Kyrgyzstan, funded by donors such as the World Bank, the Islamic Development Bank and the European Investment Bank.*
- *Kyrgyzstan has fully completed the construction of its part of the energy infrastructure, including the installation of 1,243 poles and the laying of a 456-kilometer-long power transmission line from the Datka substation to the border with Tajikistan.*

Government Support (preferences)

01

Protection of foreign investments

02

Assistance in obtaining licenses, permits and approvals

03

Available qualified personnel

04

Facilitating the export of electricity under the CASA-1000 project (according to open access rules to third parties)

05

Equal operating conditions for foreign and local companies



**THE MINISTRY OF ENERGY OF THE KYRGYZ
REPUBLIC**

**THANK YOU FOR YOUR
ATTENTION!**

