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INTERNATIONAL GREEN TECHNOLOGIES & INVESTMENTS CENTER

INTERNATIONAL GREEN TECHNOLOGIES & INVESTMENTS CENTER

OUR MISSION

ASSISTANCE

IN KAZAKHSTAN'S ACCELERATED

TRANSITION

TO A GREEN ECONOMY


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INTERNATIONAL GREEN TECHNOLOGIES & INVESTMENTS CENTER
IGTIC IS BASED ON THE LEGACY
OF THE INTERNATIONAL SPECIALIZED
EXHIBITION ASTANA EXPO 2017

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KAZAKHSTAN-2050 STRATEGY

IN TERMS OF USING NATURAL RESOURCES

ENERGY:

share of alternative energy sources and RES should achieve 50% by 2050;

ENERGY EFFICIENCY:

reduction of GDP energy consumption by 25% in 2020 comparing to initial indicators of 2008;

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KAZAKHSTAN-2050 STRATEGY

IN TERMS OF USING NATURAL RESOURCES

WATER RESOURCES:

Solving the issue of water supply for population by 2020 and for agricultural purposes by 2040

AGRICULTURE:

increase the productivity of agricultural land by 1.5 times by 2020

INTERNATIONAL GREEN TECHNOLOGIES & INVESTMENTS CENTER PROMOTES KAZAKHSTAN'S TRANSITION TO THE GREEN ECONOMY ON A PRACTICAL LEVEL

OBJECTIVES AND TARGET INDICATORS OF TRANSITION TO THE GREEN ECONOMY (additional objectives are highlighted)

WATER RESOURCES

Elimination of water resources deficiency at the national level

Provide people with water	2020
Provide agriculture with water (by 2040)	2030
Settle the water supply issue once and for all	2050

Elimination of water resources deficiency at the basin level

The fastest available elimination of deficiency for basins as a whole	2020 (by 2025)
No deficiency for each basin	2030

AGRICULTURE

Labor productivity at agriculture

Increase by **3 times**	2020

Wheat yield (ton per ha)

1,4	2020
2,0	2030

Irrigation water (m^3 per ton)

450	2020
330	2030

ENERGY EFFICIENCY

Reduction of GDP energy intensity from lvl of 2008.

25% (10% by 2015)	2020
30%	2030
50%	2050

ELECTRIC POWER

Share of alternative sources in power production (Solar and wind)[1]

not less **3%** (by 2020)	2020
30% 2030	**50%** 2050

Share of gas power plants in power production[2]

20%	2020
30% 2030	**50%** 2050

Regions gasification

Akmola and Karagandy Regions	2020
North and East Regions	2030

Reduction of carbon dioxide emission in electric power

Level 2012	2020
-15% 2030	**-40%** 2050

AIR POLLUTION

Sox and nitrogen emissions to the environment

European level of emission	2030

WASTE MANAGEMENT

Removal of household waste

100%	2030

Sanitary storage of waste

95%	2030

Share of recycled waste

40%	2030
50%	2050

[1] Solar, wind, hydro and nuclear power plants

[2] With transition of thermal power plants of major cities to gas provided sufficient volume and acceptable price for gas

RENEWABLE ENERGY SOURCES IN KAZAKHSTAN

2017
55 RES facilities

Total capacity 336 MW

- WPP 107 MW
- HPP 171 MW
- SPP 58 MW

GREEN ECONOMY CONCEPT

Kazakhstan plans to increase the percent of renewable energy sources

2020
103 RES facilities

Total capacity 2000 MW

- WPP 906 MW
- HPP 290 MW
- SPP 750 MW

Increase of RES share in total power generation volume

2020	3%
2030	10%
2050	50%

Source: Ministry of Energy of Kazakhstan

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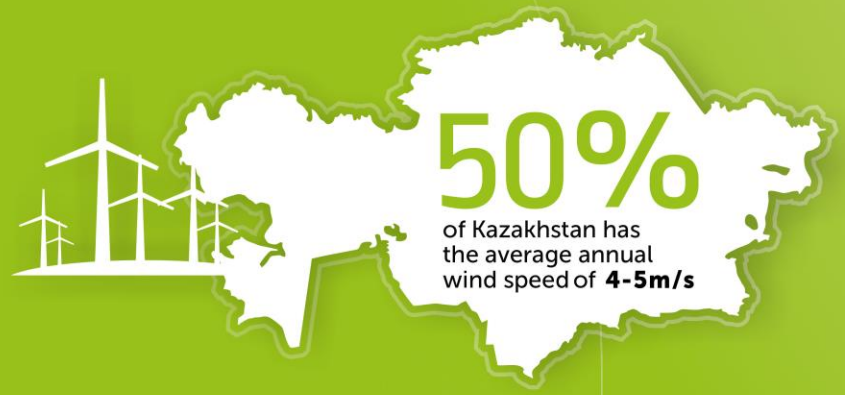
WIND POTENTIAL OF KAZAKHSTAN

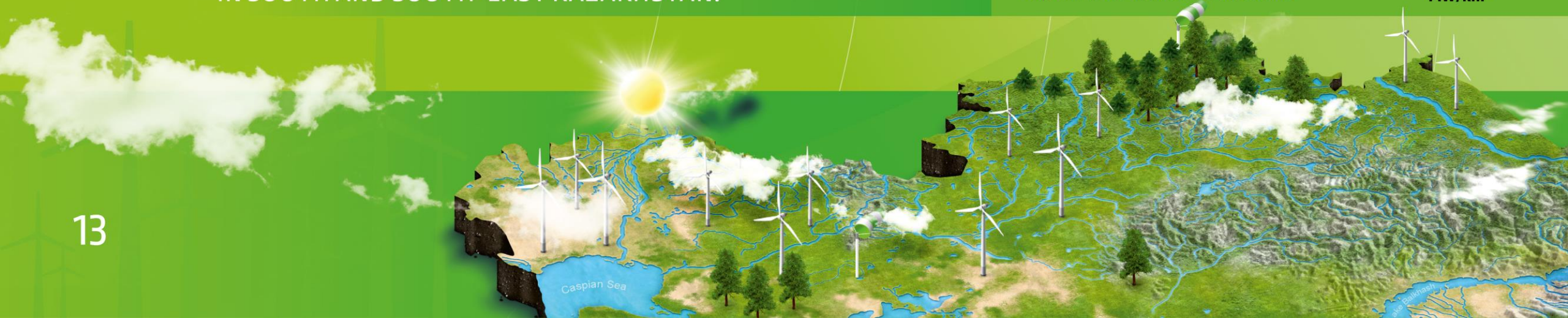


number of regions' wind speed **is 6 m per sec or more,** which is highly perspective for wind power use

AREAS WITH HIGH WIND POTENTIAL ARE NEAR THE CASPIAN SEA, IN CENTRAL AND NORTH KAZAKHSTAN, IN SOUTH AND SOUTH-EAST KAZAKHSTAN.

Considering the density of the wind farm capacity at the level **of 10 MW per kilometer** and the presence of significant free spaces, it is possible to assume the possibility of installing several thousand megawatts of power in the wind farm in Kazakhstan

10 **MW/km^2**



WHAT IS IGTIC?

International Center is a non-profit joint stock company acting as the main platform for international cooperation, center of advanced experience and investment, resources and knowledge in green technologies.

WHAT GIVES THE COOPERATION WITH IGTIC?

We offer manifold possibilities for the development of green business, supporting the growth of the country's green economy. Innovative vision of the market in the renewable energy sector, production waste management, water application efficiency increase, power management and ecosystem conservation.

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NATIONAL LEVEL

GREEN TECHNOLOGIES

Technical assessment of technologies and innovations

Transfer and commercialization

Implementation and popularization

Attraction of grants

REGIONAL LEVEL

INVESTMENT PROJECTS

Introduction of one-stop principle

Attraction of green finance

Investment analysis

Project support

INTERNATIONAL LEVEL

EXPERTISE

Analysis of environmental situation in regions

Preparation of green investment projects portfolio

Evaluation of a demand for technologies

Introduction of rating of environmental responsibility of enterprises

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OUR PRIORITIES

«Green rating» of enterprises

National Bureau of Best Available Technologies

Advanced Studies Training Center

Development of international cooperation

Expert analysis of energy conservation and energy efficiency

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MULTILEVEL SYSTEM OF UNIVERSAL GREEN RATING

- Forms the unified database of projects aimed at its demonstration at all leading international investment platforms
- Creates unified interactive portal on green economy, power and environment
- Systemizes the legal, technological and environmental identification of green projects, green finance and green business allowing to standardize the activities of green economy entities
- Determines the compliance of enterprises with modern requirements for environmental protection and sustainable development

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GREEN KNOWLEDGE SHARING

- Accessible consulting, education and information activities;
- Assistance to implementation of energy effective projects and green technologies;
- Development of human capital and acceleration of introduction of advanced green technologies and methods;
- Forming the expert and coaching team for organization of systematic and continuous spread and transfer of knowledge;
- Forming the green technologies image as the sector of high development potential.

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GREEN FUND

- Informational, expert and methodical support.
- Employment of financial resources of international and foreign organizations.
- Assistance in technology transfer.
- Increase of investment prospects

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GREEN BRIDGE INSTITUTE:

- SCIENTIFIC RESEARCH CENTER
- POWER SAVING CENTER
- GREEN TECHNOPARK
- EDUCATIONAL AND PROPAGANDA CENTER

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STRATEGIC POLICY OF DEVELOPMENT OF KAZAKHSTAN UNTIL 2025 WHICH PROVIDES THE CREATION OF INTERNATIONAL GREEN TECHNOLOGIES & INVESTMENTS CENTER:

- Legislation improvement
- Power sector transformation
- Sustainable urban development
- Transition to green business
- Development of renewable energy
- Increase of green growth potential
- Transfer of technologies and best business practices
- Consulting and technical support

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GREEN BRIDGE PROGRAM PARTICIPANTS

16 COUNTRIES

Kazakhstan, Russia, Kyrgyzstan, Georgia, Poland, Germany, Mongolia, Belarus, Montenegro, Hungary, Latvia, Albania, Finland, Bulgaria, Sweden, Spain

16 NON-GOVERNMENTAL ORGANIZATIONS

THANK YOU FOR ATTENTION!

MINISTRY OF ENERGY
OF THE REPUBLIC OF KAZAKHSTAN

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Объединение юридических лиц
«Ассоциация экологических
организаций Казахстана»

PARTNERS:

UNDP

UNECE

United Nations
ESCAP

UN environment

UNIDO

OSCE

AIFC Astana International Financial Centre