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## FUEL-FREE ENERGY IN KAZAKHSTAN A SENSIBLE ALTERNATIVE TO "ENERGY TRADITIONS"

## Makhsudova . ., Tolegen .

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The government adopted the Action Plan for the development of alternative and renewable energy in Kazakhstan for 2013-2020, which consists of the five areas. The first is the adoption of measures to support and use of renewable energy, the second is the development and research of renewable energy experts, the third is the development of local content, the fourth is promoting renewable energy policy, and the fifth is the implementation of specific projects in the field of renewable energy.

The issue of RES using the public energy balance is not a new one. By today, there are a dozen of RES projects implemented. Despite small capacities of the pilot projects, the MINT considers them quite indicative.

Thus, according to the Ministry and the plan adopted by the government, by 2020 RES capacities are expected to reach 1040 MW, out of which 13 wind electric plants with 793 MW, 14 hydroelectric plants with 170 MW and 4 solar electric stations with 77 MW. A share of total power generated by alternative and renewable sources will reach 30% by 2030 and 50% by 2050. Particularly, the Kazakh energy basket will contain 11% of wind and solar sources, 8% atomic, 10% of hydraulic and 21% of gas and 49% of coal energy sources by 2030. By 2050, the share of wind will grow up to 39%, the share of atomic power and hydropower stations will grow to 14%, gas stations share will make up to 16% and remaining 31% will belong to coal stations upgraded or using pure coal technologies. In the whole, investments volume required to transfer to a «green economy» will compose approximately 1% of GDP annually, which equals 3-4B USD a year.

Also, in the Almaty region, a success story in the field of renewable energy sources belongs to the project carried out jointly with the Korean part, The Green Village, which fully supplied the Sarybulak village with electricity and water only through the use of renewable energy sources throughout the year. The village consists of 16 houses with a population of about 70 people, has not been provided with electric power for about 18 years. Residents were forced to use underground salt water. As a result of launching the project this problem has been solved.

The implementation of these and other projects on the use of renewable energy sources in Kazakhstan will be successful only if the government continues supporting their inverstors.

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