



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION



**FIRST REGIONAL CONFERENCE ON
SUSTAINABLE INDUSTRIAL DEVELOPMENT**
PROMOTING SUSTAINABLE ENERGY SOLUTIONS
AND CLEAN TECHNOLOGIES IN CIS COUNTRIES

Public-private partnership (PPP) for development and promotion of sustainable energy solutions and clean technologies

Views from Kazakhstan

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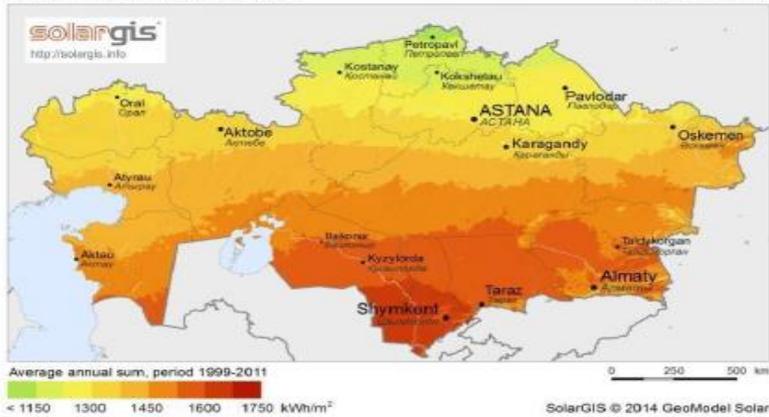
Association of Renewable Energy of Kazakhstan





Kazakhstan has huge potential in Renewable Energy generation

Global horizontal irradiation Kazakhstan

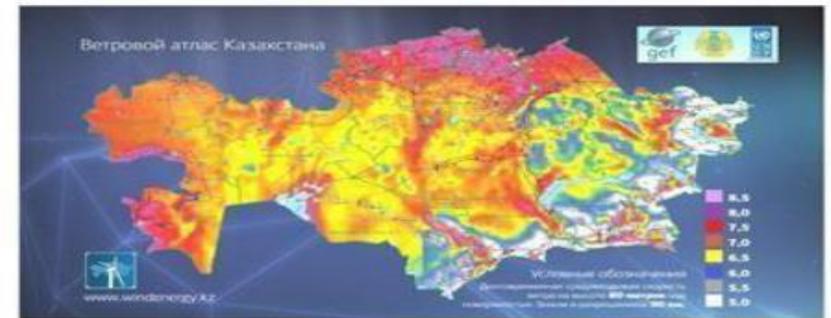


Solar energy resource	
Average insolation duration	2200-3000 hr/yr
Average insolation	1300-1800 kW/m ³ /yr
Potential	3,76 TWh

Wind energy resource

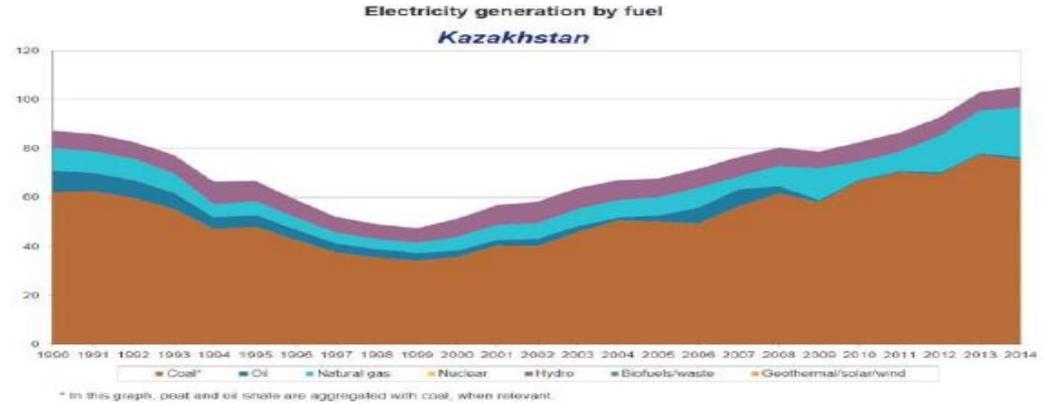
Average wind speed	<ul style="list-style-type: none"> - More than 50% of territory 4-5 m/s; - More than 10 places 8-10 m/s
Favorable allocation	South, East and Southeast Kazakhstan
Potential	1,8 TWh

Wind Atlas Of Kazakhstan





Overview of traditional electricity generation in Kazakhstan



Energetics of Kazakhstan

Generation and consumption of electricity in 2013:
Development: 91 972,7 KWh
Consumption: 89 640, 8 KWh
The main producers of electricity:

1. "ECE" JSC **16%**
2. "Ekibastuzskaya GRES-1" LLP **15%**
3. "Ekibastuzskaya Station GRES-2" JSC **7%**
4. "Kazakhmys Energy" JSC **5%**
5. "Almaty Electric" JSC **4.4%**
6. "Pavlodarenergo" JSC **3.8%**
7. "Karaganda-Power Center" LLP **3.6%**

LIQUEFIED GAS MARKET IN KAZAKHSTAN

Power consumption:

- > industry - 68, 7%
- > households - 9,3%
- > service sector - 8%
- > transport - 5,6%
- > agriculture - 1,2%.

Production and consumption of natural gas in the Republic of Kazakhstan 2014:

Production of gas - **45-50 bln. m3**

Consumption in the Republic of Kazakhstan - **18 bln. m3**

- Surplus in electricity
- Capacity retirement/ new thermal power stations' tariffs
- State subsidies for low electricity tariffs
- PPP methods applicable and required to renovate energy industry in the Country



PPP in Kazakhstan I

- Kazakhstan developed experience of PPP projects during 1990s, successful implementation of such projects would not be effective without a more comprehensive legislative package on concessions and PPP procurement.
- The first law, On concessions in the Republic of Kazakhstan, was in 1991 and aimed to regulate administrative, economic and legal environment concession agreements only for foreign investors.
- The frameworks have been proofed and applied in at least four infrastructure projects with the Development Bank of Kazakhstan and three concession projects supported by the government of the Republic of Kazakhstan. This first concession law was already deemed invalid by April 1993.
- Despite the absence of any specific law on concessions in the period of 1993–2006, several concession projects occurred during that time relying on general provisions of the Civil Code of Kazakhstan, namely: (i) 6 July 2005 – execution of the concession agreement on construction and operation of the railway ‘Shar–Ust-Kamenogorsk Station’ and (ii) 28 December 2005 – execution of the concession agreement on construction and operation of the inter-regional power line ‘North Kazakhstan – Aktobe Region’.



PPP in Kazakhstan II

- On 7 July 2006 Law On Concessions was adopted, which enabled in 2007 execution of concession agreements on the Passenger Terminal of International Airport in Aktau City, the Yeraliyevo-Kuryk railway line, Electrification of the Makat-Kandygash railway line and in 2008 execution of the concession agreements on Gas Turbine Plant in Kandygash City of Aktobe Oblast and Railway Line Korgas-Zhetygen.
- In 2016 there were 6 concessional projects under implementation in Kazakhstan. Three concession facilities are already functioning: (1) North Kazakhstan–Aktobe region power line; (2) Shar–Ust-Kamenogorsk railway; and (3) the passenger terminal of the airport in Aktau.
- However most if not all of them did less well than expected. This was partly caused by bad structuring of these concession projects and there is apparent lack of proper balance of the risk sharing between an investor and the state. The railway, for example, has seen lower than expected freight volumes, and several of the enterprises expected to use the power line were out of action or operating below full capacity. PREDICTABILITY in planning is crucial.



PPP in Kazakhstan III

- The lack of popularity of concessions so far, however, is also due to excessive regulation of concession relationships by the relevant legislation, which diminishes the parties' flexibility in determining project terms and because the process for granting concessions in Kazakhstan is very bureaucratic and time consuming.
- In order to address this issue, on 31 October 2015 the Republic of Kazakhstan enacted a new law, the PPP Law. Public-private partnerships can now be structured not only as concessions and can be used to implement projects under the PPP Law framework in any sector of the economy, though declared priorities are education, healthcare, transport, power industry and housing and public utilities.



Way forward I: Availability payments

- Introduction of availability payments as one of the most promising mechanisms of state support capable of providing a fair balance between the interests of private investors and the state.
- High-quality tender process will be fundamental to the successful implementation of availability payments in a wide variety of transport, power, utility and social infrastructure projects.
- Setup of a clear, predictable and transparent budget platform for the future support of PPP projects is a pre-requisite for the success of such projects among the potential investors and financing organizations (a budget program).



Way forward II: Bankability

- Local banks, due to the nature of their funding sources and high interest rates, in the near future are unlikely to provide local currency financing in the required volumes. Pension funds, unable to assume the high risks of initial project implementation stages, will most likely be only be able to refinance projects at the operational stages.
- Foreign banks and IFI view the predictability of cash flows in PPP projects as the basis for bankability. However, for foreign currency financing to become possible, it is important to envision foreign exchange rate risk mitigation mechanisms.
- Intention of the Government to introduce legislative changes allowing pledging of project assets to financing organizations.
- With local currency financing only available from the state budget and pension funds, possibility is in structuring Government credit enhancement instruments aimed at lowering bank interest rates, as well as the participation of national development institutions in the financing of PPP projects.
- When preparing “pilot” projects the state authorities may have to co-finance them through equity participation, budget grants and the provision of sovereign guarantees.



Way forward III: Legislative changes

- The legislative environment for governing PPP type relationships is the key reason for the reluctance of the private sector to invest the time and resources in infrastructure and social projects in Kazakhstan.
- The functioning Law on PPP introduced new forms which has the potential to shift the legal field for structuring and implementing projects to a new level. Specifically, the legal structure of “concession” is capable of encompassing any civil legal relations, provided they aim at creation or reconstruction and the subsequent operation of the assets under concession.
- However, existing Law does not address all the problems standing in the way of private sector participation. For instance, among the unaddressed issues is limiting state support, the possibility of indexation of long-term tariffs, use of international arbitration for disputes related to real estate, etc. It is therefore important to continue modernizing existing legislation.



PPP in Kazakhstan: Examples

1. Sapronat company, acting as investor with PPP model took under management 100 social objects in North-KZ and Pavlodar regions, in order to implement energy efficient boilers of its own production. Principle used is that investor modernizes small boilers using its own funds, and social object takes obligation to buy ready production in terms of heat energy.
2. Another example is Atyrau Su Arnasy company 100% renovation of pumps in 2014. 196 pumping units were replaced, used for 50 years. After renovation total economy of electricity consumption for all water utility amounted to 36%, local pumps allowed to decrease electricity consumption by 70%. Project was realized by Ergonomika LLP funds with refund in 3 year period which was made in a form of electricity consumption and OPEX decrease. Investor undertook 100% of risks.
3. More than 500 current PPP projects in Kazakhstan. Many in energy sector. Street lighting, modernization of electric, water, heat utilities.





Thank you for your attention!

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