

10 KEY CONSIDERATIONS

HYDRO POWER PLANT PROJECT IMPLEMENTATION IN KAZAKHSTAN

Kazakhstan positions itself as a promising country for the development and implementation of hydropower projects on its territory. The state sets an ambitious plan of achieving the 50% share of electricity production in the country using renewable energy sources by 2050 (hereinafter – the “RES”).

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HYDRO POWER PLANTS IN KAZAKHSTAN.

Nowadays, 34 hydro power plants (hereinafter – the “HPP”) are located on the territory of Kazakhstan.

USAID power the future regional program (2019) explored that hydropower is the second-largest RES in Kazakhstan. As of 2017, it accounts for about 10.9% of the country’s generating capacity.

Ranking third among CIS countries in water resource potential, Kazakhstan has an estimated potential of 170 billion kWh per year, of which about 62 billion kWh are technically feasible.

The annual hydropower potential of medium and large rivers is 55 billion kWh, and 7.6 billion kWh from small rivers. About 8 billion kWh from small hydropower plants are estimated to be technically feasible.

Hydro energy resources are distributed throughout the country, but three areas have particularly large resources: the Irtysh River basin and its main tributaries (Bukhtarma, Uba, Ulba, Kurchum, Kardzhil), the southeast zone with the Ili river basin, and the south zone with the Syrdarya, Talas and Chu river basins.

As of 2017, electricity generation from small hydropower plants (HPPs) was 649 million kWh.⁶ (p.3)

The largest HPPs in Kazakhstan are:

- Bukhtarma HPP of Kazzinc LLP;
- AES Ust-Kamenogorsk HPP LLP;
- AES Shulbinskaya HPP LLP;
- JSC Moinakskaya HPP.

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AUCTION

To ensure the interests of the state and the formation of a competitive market of the electricity production, the government of Kazakhstan executes land plots for RES projects via auctions.

An auction is a process carried out on the basis of the principle of competition between potential buyers to choose projects of HPP for implementation on the territory of Kazakhstan.



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The Ministry of Energy of the Republic of Kazakhstan (hereinafter – the “MoE”), 3 months before the start of the auction, publishes on its electronic resources a schedule of auctions for the calendar year with a full description of land plots, technical specifications, and the possibility of generating a certain amount of electricity from the allocated land plot.

Potential bidders need to register on the auction organiser's website and provide the necessary documentation.

Potential bidders should conclude an Agreement for the provision of the service for organisation and holding of the auctions (The Auction Services Agreement) and pay for the services of the Organiser.

MoE RK designated Kazakhstan Operator of the Electricity and Power Market JSC as the Organiser of the auction.

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PARTICIPATION IN AUCTION

For subsequent participation in the auction at least 2 (two) business days before the date of the auction, the applicant must provide a financial guarantee to the Financial Settlement Center (hereinafter – the “FSC”). In case of winning the auction, this financial guarantee is necessary for the applicant / seller and FSC to sign the power purchase agreement (hereinafter – the “PPA”) and fulfill all conditions in accordance with the Rules for organising and conducting auctions.

Government of RK designated the Financial Settlement Center for the Support of Renewable Energy Sources LLP as the Financial Settlement Center for the Support of Renewable Energy Sources.

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TRADING PROCESS

A trading session consists of the following steps:

- the organiser opens the trading session
- the participants submit their bids through the trading system
- the organiser closes the trading session
- the results of the auction are summed up, including the determination of auction prices
- the organiser compiles the register of auction winners and publishes it on its website.

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RESULT

The Organiser selects the winners based on the lowest proposed price for the implementation of the RES project and the establishment of competitive market prices for renewable energy and includes them in the register of auction winners.

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Based on the results of the auction, the Organiser, within 1 (one) hour after the close of the trading session, sends to the Participants in electronic form notifications of the results of the past auction.

Not later than one working day after the trading session closes, the Organiser shall provide MoE with a summary of the auction results, an explanation of the auction procedure, and comprehensive information about all bids submitted to the trading system, as well as the register of auction winners.

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GOVERNMENTAL GUARANTEE

The land plots specified in the schedule are reserved by the local executive authorities of the regions,

cities of republican significance, and the capital, until the auction winners are granted rights to the land plot. The relevant information shall be sent to the MoE RK.

The grid connection points provided by the energy transmission organisations to the MoE RK and specified in the Schedule are reserved until the auction winners conclude an agreement on RE facility connection and/or the technical specifications for grid connection are issued. The relevant information shall be sent to the MoE RK.

Thus, the winner of the auction receives a land plot with a prepared branch for connection the grid connection points provided by the energy transmission organisations.

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POWER PURCHASE AGREEMENT

It should be noted that due to the huge support from the government of Kazakhstan in the development of RES, the legislation of Kazakhstan has many advantages for the construction of HPP. One of these advantages is that the sale and purchase of electricity generated from RES is carried out centrally - by the Settlement and Financial Center for the Support of Renewable Energy Sources LLP. This is a guarantee of the buyback of the generated electricity. In this regard, after the end of the auction, it is necessary to conclude PPA between the auction winners and FSC. PPA with the FSC must be concluded for 15 years.

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LAND RIGHTS

As of direct sales of land, the procedure of obtaining a land plot consists of 4 stages:

- Land selection;
- Obtaining of a permit from Akimat to use the land plot for design and survey work;
- Design and survey work; and
- Obtaining the land plot right.

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OBLIGATIONS OF ENERGY GENERATING ORGANISATION

The Law on Support for the Use of RES creates an obligation for energy transmitting organisations to ensure unimpeded and non-discriminatory determination of the closest electric network connection point that corresponds to the voltage class and to ensure connection of RE facilities.

After obtaining land plot entities, must establish grid connection to implement their projects. The procedure of grid connection arrangement covers approval of power generation scheme, which shall be approved by the system operator (KEGOC JSC) with the relevant organisation (transmission and/or generation) to the planned connection grids within.

In addition, agreement on connection of the RES facility stipulates that the transmission company shall provide the RES facility with access to the network by providing the connection point specified in the Technical Specifications (TS). This agreement is valid between the date of the technical specifications and the signing of the grid connection act.

Further requirement for HPP project implementation is Signing an agreement on connection of, as well as Rules for Concluding the Contract. The energy transmitting organisation shall provide grid access to the energy generating organisation by providing the grid connection point in line with technical specifications. Moreover, energy generating organisation shall fully comply with technical specifications and will ensure

the commissioning of the renewable energy facility within the validity period of the technical specifications.

Technical Dispatching Agreement shall be taken into consideration before the start of comprehensive tests and obtaining access to the grid.

An energy generating organisation is obliged to conclude a contract with the energy transmission organisation for the transmission of electric energy before the beginning of comprehensive tests and access to electric grids.

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ENVIRONMENTAL CONSIDERATIONS

The last stage of implementing HPP project is Environmental Impact Assessment (hereinafter – the “EIA”) which will be made by the authorized environmental protection body - the Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan. The authorized body, develops and approves instructive and methodological documents for conducting the EIA.

After successful undergoing an environmental impact assessment entity could start construction and installation works.