FINANCIAL ATTRACTIVENESS OF RENEWABLE ENERGY PROJECTS AS THE BASIS FOR SUCCESSFUL AUCTIONS
Introduction

What have been done:

➢ Analysis of legislation and current practices, collection and review of the financial institutions reports (2013 – 2018) regarding the development of RES in the RoK;
➢ Meetings and discussions with international and local investors and RES association, as well as with the international financial institutions (EBRD, ADB, IFC, WB etc.) and the National Bank of the RoK;
➢ Review of the international practice in the field of renewable energy auctions and enablers, including the review of international PPA standards and other investment risk reduction measures,
➢ Selection of the most critical proposals that combine the common stand of donors and investors who ensure risk reduction and affect the success of renewable energy auctions taking into account the applicability of such proposals in the RoK.

Conceptual proposals for the following key areas have been prepared:

1) Foreign exchange risk compensation
2) The FSC financial stability
3) PPA bankability
4) Subject of an auction (MW vs MW/hour)
5) Improvement of the RES auction procedure, planning
6) Signing PPA and obtaining a land plot
7) Creation of the RES Agency

Implementation of the proposals will require:

➢ Drafting and making amendments and additions to the laws and the by-laws,
➢ Amendments to the auction concept and rules,
➢ Additional obligations for all auction players (Ministry of Energy, participants and the Organizer, the FSC, energy transmitting companies etc.),
➢ Involvement of donors, developers, government agencies and associations (a working group).
Why loans in KZT are expensive

The main reasons for high interest rates in KZT

1. **Country risk**
   The risk of investment cost loss which is related to investments abroad. The size of these risks in Kazakhstan is about two percent, which leads to an increase in interest rates for Kazakhstani projects, including for loans in tenge.

2. **Underdeveloped funding market / low liquidity**
   One of the reasons for weak funding is that the demand for lending outweighs the volume of deposits. This leads to an increase in rates of return on deposits in order to attract more of those, and, accordingly, to an increase in interest rates on loans.

3. **Credit rating of Kazakhstan**
   Kazakhstan’s credit rating is at the investment grade level. However, the poor quality of Kazakhstan’s bonds in case of an unfavorable scenario can sink to the level of risky with speculative features, which in turn affects the interest rate in tenge.

4. **A fairly high level of non-performing loans (NPL)**
   The high level of non-performing loans affects the overall state of the banking system. Instability of the banking system causes risks that increase the cost of commercial banks capital, which leads to an increase in the interest rate in tenge.

5. **Exchange rate expectations**
   Due to high interest rates in tenge, low liquidity and inflation expectations, the loans in foreign currency look more attractive. However, in this case the project is exposed to FX risks. The chart on the right shows the tenge to US dollar exchange rate forecast. According to the forecast, tenge is expected to fall against the US dollar in the long term.

**Minimum cost of lending in national currency in 2017**

- **IFI** (tenge) 11%
- USA 7%
- RK 16%
- RF 10%

Note: (*) IFI rate = Inflation + 4%

Different methods of insuring against FX risks by the state have been considered:
1. currency swap by the National Bank
2. PPP mechanism
3. direct indexation of the tariff for exchange rate fluctuations
Due to the lack of a currency swap mechanism and the legal possibility of using the PPP mechanism, and taking into account international experience, the most appropriate method for insuring against FX risk is the direct indexation of the tariff for the exchange rate fluctuations.
FX risk compensation: tariff indexation

**Description**

To attract investment in the RES sector, the government needs to compensate for the FX risk to investors. According to international practice, it is necessary to compensate for at least 70% of changes in the exchange rate. This is due to the high cost and lack of long-term loans in tenge (from 16% per annum and for not more than 5 years). For comparison, the cost of lending from IFIs is no more than 11% per annum for up to 15 years.

According to analysts’ forecasts, the growth of the tenge's exchange rate against the dollar is lower than the expected rate of inflation. These forecasts mean a lower increase in RES tariffs with 70% indexation of the FX risk versus 30% indexation. In this case, the FX risk insurance will not require additional expenses from the state. The charts on the right demonstrate the exchange rate forecast and the dynamics of the compound annual growth rate (CAGR) of the tariff under different indexation scenarios.

### FX risk effects analysis

<table>
<thead>
<tr>
<th>Description</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
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<tbody>
<tr>
<td><strong>RES tariff forecast</strong></td>
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<tr>
<td>Total electric energy production</td>
<td>thousand Kwh</td>
<td>114 500</td>
<td>115 000</td>
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<tr>
<td>RES-based electric energy production</td>
<td>thousand Kwh</td>
<td>1 145 000</td>
<td>2 300 000</td>
</tr>
<tr>
<td>The share of produced RES-based electric energy</td>
<td>%</td>
<td>1.0%</td>
<td>2.0%</td>
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<tr>
<td><strong>RES tariff (30% inflation; 70% FX risk US dollars)</strong></td>
<td>tenge/kWh</td>
<td>25.6</td>
<td>26.1</td>
</tr>
<tr>
<td><strong>RES tariff (70% inflation; 30% FX risk US dollars)</strong></td>
<td>tenge/kWh</td>
<td>26.2</td>
<td>27.3</td>
</tr>
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<td><strong>Stress test (75% inflation; 25% FX risk US dollars)</strong></td>
<td>tenge/kWh</td>
<td>26.3</td>
<td>27.5</td>
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**FX risk compensation (50% tenge devaluation in 2020)**

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<tr>
<th>Description</th>
<th>2018</th>
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<tr>
<td>FX risk compensation (50% tenge devaluation in 2020)</td>
<td>thousand tenge</td>
<td>12 557 314</td>
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<tr>
<td>100% tenge devaluation in 2020</td>
<td>tenge/kWh</td>
<td>26.3</td>
<td>27.5</td>
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<tr>
<td>FX risk compensation (100% tenge devaluation in 2020)</td>
<td>thousand tenge</td>
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### Source

KEGOC, The financial settlement center, Economist Intelligence Unit, Bloomberg
The role of the Financial Settlement Center of Renewable Energy

- The FSC- an off-taker single buyer of renewable energy, KEGOC – the only participant of the FSC
- The financial stability of the FSC depends on the payment discipline of conditional consumers and their ability to effectively transfer the costs of renewable energy to end-users (tariff setting)
- Investors and banks, including the EBRD, ADB and others, are ready to finance renewable energy projects, but the long-term financial stability of the FSC is being questioned for the following reasons:
  - legal form of business (LLP): small authorized capital, KEGOC's liability is limited to the contribution to the authorized capital;
  - no assets (property) other than the money of the reserve fund;
  - the size of the reserve fund is only 3% of the annual FSC expenses for the purchase of electricity from renewable energy facilities;
  - the only source of the FSC revenue is payments from the conditional consumers, etc.

In order to attract investment and lending from banks for renewable energy projects, it is extremely important to ensure and guarantee a long-term financial stability of the FSC as an off-taker single buyer of electrical energy produced by renewable energy facilities.
Financial stability of the FSC: possible solutions

Possible solutions

- To change the FSC’s legal form of business (from LLP to JSC)
- To change the owner of the FSC (under MoE, Samruk-Energo, Samruk-Kazyna, etc.)
- To provide government or KEGOK guarantees
- Bank guarantee for the FSC obligations
- To insure those FSC risks, which can lead to the default of the FSC in connection with non-payment by conditional consumers
- By analogy with the Law on electric energy, the Law on RES shall specify that the Government of the RK "provides state financial support to the FSC in case if it can not fulfill its obligations to the renewable energy producing organizations due to failure to pay or delayed payment by the conditional consumers for the supplied electricity produced by the renewable energy facilities and/or due to insufficient funds available in the reserve fund"
- The Law on RES shall provide for the mandate of the MoE/commitment of the MoE/ KEGOC to conclude an Agreement on the support for the renewable energy project among the MOE (and/or KEGOC), the developer and the banks. The provisions of the Agreement, among other things, will include acceptable mechanisms for securing financial commitments of the FSC (including those which will allow to make additional contributions to the authorized capital of the FSC in case the default risk occurs).

*The proposals require a detailed study with the MNE, MoF and MID in order to identify changes to be made in sector-specific laws (for example, expanding the mandate), as well as in budget and investment laws, to create a working mechanism in case the instrument is going to be implemented in practice.
## PPA bankability

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<td>To make renewable energy projects financially attractive there must be a bankable PPA. However, the current PPA has no bankability provisions. In particular, the current PPA does not contain/address the following: • there are no standard articles on mutual guarantees (including in the case of failure by the FSC to fulfill its obligations on timely payments) • there are no compensations for early termination, insurance • there are no guarantees for the lenders right to enter the project (step-in) if the developer violates the terms of the PPA and other provisions based on the best international practice. In this connection it is recommended to improve the current PPA and secure payments (guarantees, compensation, etc.) as well as other standard contracts (on connection, dispatching, transmission of electricity), and ensure appropriate guarantees. Advantage: expansion of obligations without changing the role and the status of the players (will not require a significant change in the current concept).</td>
<td>Key proposals to ensure the bankability of the PPA and related agreements: 1) To extend the PPA validity period to 20+; 2) To provide for the possibility of transferring the step-in rights; 3) To provide for compensation for early termination of the PPA, including due to the prolonged force majeure; 4) To provide for a guaranteed purchase of all the generated electricity (take or pay) by including certain obligations in the PPA or related agreements (on connection, dispatching, etc.); 5) To provide for the possibility of revising the terms of the PPA in case of changes in the legislation that disadvantage investors (in particular, by extending the PPA deadlines to achieve a balance of interests of the parties); 6) To provide for the international arbitration; 7) To introduce/extend the PPA interim milestones/deadlines (closing of the financial period, starting the construction, extension of the main implementation milestones) with the possibility of gradual return of the PPA performance bond</td>
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## The subject of the auction (MW vs MWh)

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<td>Since national renewable energy targets are reflected in the total amount of MW that will be generated through online auctions, the existing legislation also reflects this target.</td>
<td>It is recommended to conduct auctions for the payment for delivery MWh of electricity.</td>
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<td>However, <strong>the greatest value of auctions will be the supply of the largest amount of energy at the lowest price</strong> (based on MWh - as an indicator of the actual amount of energy produced over a certain time period).</td>
<td>The corresponding changes should also be reflected in the PPA in terms of guaranteeing the supply of a certain amount of electricity per hour by the developer along with a list of exceptions in case of default due to third parties / force majeure (for example, loss of project revenues due to a power plant shutdown caused by a transmission line shutdown cause of congestion).</td>
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<td>Also, at present, the law does not provide for mechanisms to guarantee the supply of a certain amount of electricity by the developer (there are no penalties for delays and underproduction).</td>
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### Description

**Auction design**

There is no qualifications-based selection stage, there is only a list of documents required to identify an auction participant. This may result in participation in the auction by companies with no experience in the renewable energy sector, which creates the risk of failure to implement the renewable energy project and further failure to achieve long term renewable energy targets.

### Solution

- Bidders shall be pre-selected before participating in a trading session.
- Pre-selection can occur as part of the process or before the trading session is launched. Qualification requirements (technical, reputational, legal, financial) shall be defined in advance.
- The Organizer of the auction shall be able to evaluate bids based on pre-defined evaluation criteria.
- Shortlisted bidders will be allowed to participate in the trading session.
- Also it is recommended to make changes to the Auction rules and add qualification requirements in accordance with international best practice:
  - Legal
  - Proof of financial health
  - Past experience requirements

### Medium- and long-term plans

Absence of medium- and long-term plans for organizing and conducting auctions.

Current Regulations provide for the development and publication of a schedule for a calendar year not less than three months before the proposed date of the auction.

It is recommended to approve and publish schedules of auctions for a certain period in advance not less than 2-3 years before the date of holding.

This will allow potential participants to conduct preparatory work in connection with the establishment of a legal entity in the Republic of Kazakhstan (if necessary), studying the market, gathering the necessary data on the quality of land plots, the quality of the access point to the network, in connection with the analysis of resource potential (measurements), etc.
## Conclusion of PPA and obtaining a land plot.

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<td>According to the Auction Rules, PPA must be signed by the individual who won the auction. Winners of auction tenders submit an application for the conclusion of PPA with the FSC within 60 days. However, the legislation does not allow the conclusion of a contract with affiliated companies, (including subsidiaries) of the auction winner. (i.e. only the company-winner of the auction has the right to sign the auction)</td>
<td>Include the Auction Rules that the company which was declared the winner of the auction can sign and implement the PPA through its 100% local subsidiary.</td>
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<td>Notification about the beginning of construction must be submitted within 12 months from the date of signing PPA. However, the procedures and terms for obtaining a land plot, development and approval of the project, land use and other documentation, change of the purpose of the site, etc. put the risk of compliance with this period.</td>
<td>Foresee in the land code a simplified procedure for obtaining a land plot for renewable energy facilities (this issue requires in-depth development).</td>
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<td>Currently, the main burden with the implementation of the policy in the RES sector lies with the RE Department for Renewable Energy at the Ministry of Energy, which doesn't have sufficient resources. However, in international practice, institutions that also perform regulatory and supervisory functions are created to assist the authorized body and implement the RES policy jointly with the authorized body.</td>
<td>Establishment of a separate legal entity with number of powers and functions:</td>
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<td>• accounting, storage, systematization and generalization of data on RES potential</td>
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<td>• the organization and carrying out of researches in connection with measurements of potential RES (independently, or with the involvement of experts)</td>
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<td>• monitoring of the process of preparation and implementation of projects in the field of RES, including for the purpose of monitoring progress in achieving target indicators in the field of renewable energy</td>
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<td>• determination of the amount of historical costs in connection with the measurement of the potential of RES, the cost and conditions for obtaining such information by potential participants</td>
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<td>• assistance in development of normative technical documents in the field of RES, development of standards and regulations of public services</td>
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<td>• preparation of information / documentation / coordination packages for reserved land plots, connection points, capacity measurements, etc. (the issue of maximum project development for auctioning)</td>
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<td>• assistance to the organizer of RES auctions in the selection of potential participants at the stage of prequalification (subject to the introduction of such a stage) in accordance with international practice: confirmation of financial stability, work experience and others.</td>
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Thank you for attention!