On approval of the rules for determining maximum auction prices for electric energy generated through energy recovery, including procedure for indexing of auction prices

Unofficial translation

Resolution of the Government of the Republic of Kazakhstan dated March 12, 2021 No. 134.

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Footnote. Became invalid by the Decree of the Government of the Republic of Kazakhstan dated 31.12.2021 No. 988 (comes into effect after ten calendar days after the date of its first official publication).

In accordance with subparagraph 4-3) of Article 16 of the Ecological Code of the Republic of Kazakhstan dated January 9, 2007, the Government of the Republic of Kazakhstan decides:

1. To approve the attached rules for determining maximum auction prices for electric energy generated through energy recovery, including procedure for indexing of auction prices.

2. This resolution comes into force from the day of its first official publication.

Prime-Minister of the Republic of Kazakhstan	*A. Mamin*

Approved
by the Resolution of
the Government of the
Republic of Kazakhstan
dated March 12, 2021 № 134

The rules for determining maximum auction prices for electric energy generated through energy recovery, including procedure for indexing of auction prices

1. General provisions

1. These Rules for determining maximum auction prices for electric energy generated through energy recovery, including the procedure for indexing of auction prices (hereinafter referred to as the rules), are developed in accordance with subparagraph 4-3) of Article 16 of the Ecological Code of the Republic of Kazakhstan (hereinafter - the Code) and establish the procedure for determining the maximum auction prices for electric energy, generated through energy recovery, as well as the procedure for indexing of auction prices.

2. In these Rules, the following basic concepts are used:

1) energy recovery - the process of heat treatment of waste in order to reduce their volume and generate energy, including using them as secondary and (or) energy resources, with the exception of the production of biogas and other fuel from organic waste;

2) an object for energy recovery - a set of technical devices and installations, intended for the energy recovery, and the structures and infrastructure interconnected with them, technologically necessary for energy recovery;

3) auction price - the price of the purchase by the settlement and financial center of electric energy produced by the object for energy recovery, determined according to the results of auction tenders and not exceeding the level of the corresponding maximum auction price;

4) the maximum auction price - the maximum value of the auction price for electric energy produced by energy recovery;

5) the authorized body - the central executive body, which manages an inter-sectoral coordination in the field of environmental protection and nature management;

6) an energy-producing organization that uses the energy recovery - a legal entity that performs the production of energy received from energy recovery, in accordance with the legislation of the Republic of Kazakhstan;

7) the financial model - a set (system) of interconnected indicators characterizing the introduction of energy-producing organizations using energy recovery, with the calculation of the maximum auction price for electric energy, produced by energy recovery;

8) the settlement and financial center - a legal entity created by a system operator and determined by the authorized body, which in the manner prescribed by the legislation in the field of support for the use of renewable energy sources, makes a centralized purchase and sale of electric energy produced by objects for energy recovery and put into electrical networks of the unified electric power system of the Republic of Kazakhstan.

Other concepts and definitions used in these Rules are applied in accordance with the current legislation of the Republic of Kazakhstan.

3. The maximum auction prices for electric energy produced by energy recovery are developed and approved by the authorized body.

4. The maximum auction prices are approved in tenge indicating equivalents expressed in US dollars and euros at the exchange rate of the National Bank of the Republic of Kazakhstan on the day of approval.

2. The procedure for determining maximum auction prices for electric energy produced by energy recovery

5. The maximum auction price of electric energy produced by energy recovery is determined on the basis of the principle of reimbursement of the cost of construction and operation of facilities for energy recovery.

6. The formula for calculating the maximum auction price for electric energy produced by energy recovery, for the first year of operation is as follows:

$Patz = (ZPE + FP) / OE$, where

$Patz$ - maximum auction price (tenge);

ZPE - costs for production of electric energy and expenses of the period according to the financial model (tenge);

FP - fixed profit (tenge);

OE - the volume of electricity release, financial model (kWh).

7. The costs of the production of electric energy (ZPE), taken into account when forming maximum auction prices for electric energy, include the following:

1) material costs (fuel, fuel transportation, water for technological needs, fuel and lubricants, other basic and auxiliary materials);

2) costs of labor personnel;

3) social tax, social deductions;

4) repair expenses (current and overall repairs that do not lead to an increase in the cost of fixed assets);

5) a fee for emissions in the environment;

6) a fee for the use of water resources;

7) taxes (land, transport, property and other mandatory payments);

8) technical dispatch services;

9) services for balancing of the production and consumption of electric energy;

10) services of third-party organizations of a production nature.

The expenses of the period include:

1) remuneration of administrative personnel;

2) the costs of mandatory types of insurance, taxes, fees and payments;

3) travel expenses;

4) services of third-party organizations (audit, bank services, communication services);

5) the costs of paying remuneration for borrowed funds (received in national currency, within the amount calculated using no more than 2.0 multiple of the official refinancing rate (base rate) established by the National Bank of the Republic of Kazakhstan).

8. Calculation of fixed profit (FP) is made according to the formula:

FP = CAPEX * WACC, where

FP - fixed profit (tenge);

CAPEX - the amount of investment costs in the project according to the financial model (tenge);

WACC is a weighted average cost of capital.

9. The weighted average cost of capital (WACC) is determined by the calculation formula for the weighted average cost of capital:

$$WACC = R_E * \frac{E}{(D+E)} + R_D * (1 - T) * \frac{D}{(D+E)};$$

, where

WACC is a weighted average cost of capital, %;

RE - the cost of equity, tenge;

RD - the cost of attracting borrowed capital, tenge;

E/(D+E) - the amount of equity in the total invested capital, tenge;

D/(D+E) - the amount of borrowed capital (debt) in the total invested capital, tenge;

T - corporate income tax rate, %.

The cost of equity is not less than the cost of attracting of the borrowed capital.

10. The cost of equity (RE) is determined on the basis of a modified model for assessing capital assets according by the following formula:

Re = Rf + bL * ERP + SP + CP + SR, where

Re - the cost of equity, tenge;

Rf - nominal risk-free rate, %;

bL - industry coefficient of beta capital (taking into account the structure of capital, leveredbeta);

ERP - the expected bonus for the risk of investing in the shares, %;

SP - bonuses for size, %;

CP - bonuses for country risk (is applied depending on the selected RF), %;

SR - bonuses for specific project risks, %

11. The nominal risk-free rate (RF) is defined as the profitability to repay the 20-year-old state treasury bonds of the United States at the beginning of the estimated regulatory period in accordance with the data posted on the official website of the US Federal Reserve.

12. The industry coefficient of beta capital, taking into account the structure of capital (ßL) is determined by the following formula:

$$\beta_L = \beta_U * \left(1 + (1 - T) * \frac{D}{E}\right)$$

, where

ßL - coefficient of beta capital (taking into account the structure of capital, leveredbeta);

ßU - coefficient of beta capital (excluding the structure of capital, unlevedbeta);

D/E - the amount of borrowed capital (debt) in the amount of equity;

T - corporate income tax rate, %.

13. The industry coefficient of beta capital, excluding the structure of capital, is determined on the basis of data on the average industrial beta of A. Damodaran for the US energy sector for the year preceding the regulation period.

14. The amount of borrowed capital (debt) in the total invested capital (D/(D+E) is defined as an average -industrial indicator based on A. Damodaran's data for the US energy sector for the year preceding the regulation period.

15. The amount of equity in the total invested capital (E/(D+E) is determined by the following formula:

$$\frac{E}{(D+E)} = 1 - \frac{D}{(D+E)}$$

, where

E/(D+E) - the amount of equity in the total invested capital;

D/(D+E) - the amount of borrowed capital (debt) in the total invested capital.

16. The amount of borrowed capital (debt) in the amount of equity (D/E) is determined by the following formula:

$$\frac{D}{E} = \frac{1}{1 - \frac{D}{(D+E)}} - 1$$

, where

D/E - the amount of borrowed capital (debt) in the amount of equity;

D/(D+E) - the amount of borrowed capital (debt) in the total invested capital.

17. The expected bonus for the risk of investing in the shares is accepted at 6%.

18. The bonus for size is determined on the basis of research data for companies with micro-capitalization. Review of this parameter for calculating the average weighted cost of capital is carried out only at the beginning of the estimated regulation period.

19. The bonus for country risk is determined on the basis of A. Damodaran's data for the Republic of Kazakhstan for the year preceding the regulation period.

20. Revision of this parameter for calculating the weighted average value of capital is carried out only at the beginning of the estimated regulation period.

21. The bonus for the specific risks of the project is determined at the level of 3%.

22. The cost of attracting borrowed capital is defined as the average actual rate on long-term loans issued by banks to non-financial organizations in the Republic of Kazakhstan , according to the data of the National Bank of the Republic of Kazakhstan.

23. The corporate income tax rate is determined in nominal terms in accordance with the tax legislation of the Republic of Kazakhstan.

24. The rate of the average weighted cost of capital (WACC) in the amount of 17.55% is used as the rate of the average weighted cost of capital (WACC) used in the calculations of determining the maximum auction price for electric energy produced by energy recovery.

25. The maximum auction prices for electric energy produced by energy recovery are approved by the act of the authorized body when agreed with the authorized body in the field of electric power industry, and the authorized body in the field of industry and industrial and innovative development.

3. Procedure for indexing of auction prices

26. Auction prices, depending on the structure of financing of the project and economic validity, are subject to annual indexation taking into account the consumer price index (CPI) and/or extraordinary indexation in the case of a significant (more than 10%) changes in the national currency in relation to foreign currencies specified in paragraph 4 of these Rules.

27. Auction prices are indexed by the settlement and financial center once a year on November 1, taking into account inflation by the formula:

Tt+1= Tt * CPI,

where Tt+1 is an indexed auction price calculated according to the above formula, rounded to the whole tiyn towards reduction;

Tt is an auction price, taking into account the previously conducted indexation, if any was previously carried out;

CPI is an index of consumer prices accumulated over twelve months preceding indexation on November 1, determined according to the data of the authorized body in the field of state statistics.

28. For projects with credit obligations in foreign currency, auction prices are indexed once a year on November 1, taking into account inflation and changes in the exchange rate of the national currency for convertible currencies by formula:

$$T_{t+1} = T_t \cdot (1 + 0{,}3 \cdot \frac{(\text{ИПЦ}_t - 100\%)}{100\%} + 0{,}7 \cdot \frac{USD_{t+1} - USD_t}{USD_t})$$

, where

Tt+1 is an indexed auction price calculated according to the above formula, rounded to whole tiyns towards reduction;

Tt is an auction price, taking into account the previously conducted indexation, if such indexation was previously carried out;

CPIt - consumer price index accumulated over twelve months preceding indexation on November 1, determined according to the data of the authorized body in the field of state statistics;

USDt+1 - the current tenge rate for the US dollar on November 1 of the year of indexation , determined according to the data of the National Bank of the Republic of Kazakhstan;

USDt is an average tenge rate for the US dollar calculated for the period of twelve months preceding the date of indexation, determined according to the data of the National Bank of the Republic of Kazakhstan.

29. The calculation of the indexation of auction prices is carried out by the settlement and financial center annually until November 10.

30. Calculation of indexing of auction prices and the indexed auction prices are published by the settlement and financial center on its official website no later than November 15 of the corresponding year.