



On approval of the Rules of preparing general gasification scheme of the Republic of Kazakhstan

Invalidated Unofficial translation

Order No. 582 of the Government of the Republic of Kazakhstan dated May 7, 2012. Abolished by the Decree of the Government of the Republic of Kazakhstan dated November 29, 2023 No. 1055

Unofficial translation

Footnote. Abolished by the Decree of the Government of the Republic of Kazakhstan dated November 29, 2023 No. 1055

In accordance with subparagraph 3) of article 5 of the Law of the Republic of Kazakhstan dated January 9, 2012 “On gas and gas supply”, the Government of the Republic of Kazakhstan hereby RESOLVES:

1. To approve the attached Rules of preparing general gasification scheme of the Republic of Kazakhstan.
2. This resolution shall take effect upon expiry of ten calendar days from the date of the first official publication

Prime Minister of the Republic of Kazakhstan

K. Massimov

Approved by
Order No. 582
of the Government
of the Republic of Kazakhstan
dated May 7, 2012

Rules of preparing general gasification scheme of the Republic of Kazakhstan 1. General Provisions

1. These Rules of preparation of the general gasification scheme of the Republic of Kazakhstan (hereinafter - the Rules) are developed in accordance with the Law of the Republic of Kazakhstan dated January 9, 2012 “On Gas and Gas Supply” (hereinafter - the Law) and govern the procedure for preparing the general gasification scheme of the Republic of Kazakhstan.

2. The following basic concepts shall be used in these Rules:

1) the general gasification scheme of the Republic of Kazakhstan (hereinafter - Scheme) is a document defining economically viable strategic directions of gas industry development to ensure reliable gas supply to consumers of the Republic of Kazakhstan and the main measures to be taken to develop the gas industry by usage of

the marketable and (or) liquefied petroleum gas as fuel at housing and utilities infrastructure facilities, industrial, agricultural and other facilities, and containing a layout of gas supply system facilities placement, the list and technical characteristics of gas supply system facilities planned for construction, upgrading and (or) reconstruction, necessary financial resources and their sources, prospective commodity and liquefied petroleum gas resources, as well as the gas supply scheme for existing and planned for construction gas supply system facilities;

2) rating assessment - methodology for determining gasification attractiveness of certain administrative and territorial units of the Republic of Kazakhstan based on analysis of the totality of socioeconomic and natural-economic characteristics.

Other terms and definitions used in these Rules are applied in accordance with the Law.

2. Procedure of the scheme preparation

3. The scheme shall be developed in three stages:

1) formation of the regional scheme by akimats of oblasts, cities of republican status, the capital;

2) formation of the scheme by the authorized body;

3) approval of the scheme by the Government of the Republic of Kazakhstan.

4. Akims of oblasts, cities of republican status, the capital shall ensure submission to the Interdepartmental commission on preparation of the general gasification scheme of the Republic of Kazakhstan established with the authorized body (hereinafter - the Commission), the regional gasification schemes prepared in accordance with these Rules.

5. The head of the authorized body shall be the head of the Commission. The Commission members shall be representatives of the authorized bodies in municipal services, industrial safety, industry and new technologies, agriculture, the authorized body that manages natural monopolies and regulated markets, the authorized body that performs general management and cross-sectoral coordination in the field of strategic and economic planning, development and formation of budgetary policies, local executive bodies of oblasts, the city of republican status and the capital. The working body of the Commission shall be the structural unit of the authorized body in charge of gas and gas supply policies.

6. The scheme shall be developed with regard to priorities, such as:

1) meeting of domestic needs of the Republic of Kazakhstan for marketable and liquefied petroleum gas on the basis of the forecast balance of production, sale and consumption of marketable and liquefied petroleum gas;

2) usage by household and municipal consumers of marketable gas, including the gas derived from regasification of liquefied natural gas.

7. Regional gasification schemes shall be developed on the basis of the rating assessment of gasification attractiveness of the regions in accordance with the methodology for rating assessment of gasification attractiveness of the regions given in the appendix to these Rules.

8. The regional gasification schemes shall reflect:

1) operated facilities consuming gas, facilities planned for commissioning, with indication of the commissioning timing;

2) gas consumption sources at the facilities specified in subparagraph 1) of this paragraph;

3) type of gas (commercial and (or) liquefied petroleum) planned for use in gasification, with evaluation of economic advantages of its use;

4) populated localities planned for gasification;

5) facilities whose gasification is economically unviable until 2015 with rationale provided for it.

9. To carry out calculations within the rating assessment framework, updatable and completable information system shall be created to assess the feasibility and attractiveness of gasification of each individual administrative-territorial unit (district) of the Republic of Kazakhstan based on the rating score.

10. While developing the regional scheme, the following actions shall be taken:

1) collection and analysis of current socioeconomic and natural-economic indicators of the regions of the Republic of Kazakhstan, impacting gasification attractiveness of the regions;

2) analysis of the available resource base necessary to meet the domestic needs of the Republic of Kazakhstan for marketable and liquefied petroleum gas;

3) determination of forecast values of the main indicators of the balance of marketable and liquefied petroleum gas on optimistic, pessimistic and real scenarios;

4) comparative analysis of the alternative energy sources market;

5) development of the map of existing and planned for construction trunk gas pipelines;

6) appraisal of the investment amount required for gasification of each analyzed region of the Republic of Kazakhstan;

7) rating assessment of attractiveness within the regions of the Republic of Kazakhstan.

11. Regional gasification schemes of the Republic of Kazakhstan shall be presented :

1) to the Commission members, with the exception of local executive bodies of oblasts, the city of republican status and the capital, and the working body of the Commission;

2) to the Commission members - representatives of local executive bodies of oblasts, the city of republican status and the capital, adjoining the corresponding administrative-territorial unit, the regional scheme of which is presented for examination.

Upon receipt of the regional gasification schemes, the members of the Commission and the working body of the Commission shall provide their examination by the relevant state bodies and organizations and preparation of the conclusion on competence issues within two weeks from the day of the scheme receipt.

12. The Commission meetings shall examine regional gasification schemes and conclusions of the state bodies and the working body, and recommendations shall be developed for finalization of the regional schemes and (or) for their inclusion in the scheme.

13. The scheme shall contain:

1) economically viable strategic directions for gas industry development to ensure reliable gas supply to consumers in the Republic of Kazakhstan;

2) the main measures to be implemented for the gas industry development by usage of marketable and (or) liquefied petroleum gas as fuel at municipal housing objects, industrial, agricultural and other facilities;

3) the layout of existing and planned for construction gas supply facilities;

4) the list and technical characteristics of gas supply system facilities planned for construction, upgrading and (or) reconstruction;

5) required financial resources and their sources, prospective resources of marketable and liquefied petroleum gas;

6) gas supply scheme for existing and planned for construction gas supply facilities ;

7) timing of the scheme implementation for long term.

14. Within the framework of the scheme, the list of the most attractive regions for gasification shall be formed and approved by the authorized body, containing the following information:

1) the name of the gasification project;

2) the responsible state body;

3) the region in which the project is planned;

4) the project applicant;

5) provisional indicators of the economic attractiveness of the project;

6) intended socioeconomic impact, in the event of adoption of the project;

7) estimated financial costs associated with the project implementation, and financing sources;

8) estimated timing of the project.

15. Upon approval of the scheme by the Commission, the authorized body shall, in the prescribed manner, prepare and introduce the draft resolution of the Government of the Republic of Kazakhstan on approval of the general gasification scheme of the Republic of Kazakhstan.

16. In the event of changes in socioeconomic indicators, development directions of the regions or another need for adjusting the scheme, the Commission members shall initiate convening of the meeting to decide on amending and (or) complementing of the scheme.

At least two weeks before the meeting of the Commission, the member of the Commission who initiated such a meeting shall present to its members and the working body the rationale for adjusting the scheme subject to the provisions of this section.

Appendix
to the Rules of preparing
General gasification scheme
of the Republic of Kazakhstan

Methodology of rating assessment of regional gasification attractiveness

1. Rating of indicators shall be carried out by the formula:

$$\tilde{k}_{ij} = \frac{|\text{лучший}_j - k_{ij}|}{|\text{лучший}_j - \text{худший}_j|},$$

ЛУЧШИЙ –BEST

ХУДШИЙ-WORST

where

i – characterizes the index number of the district in the sampling of all the districts of a certain oblast $i = (1 \dots n)$, where *n* is the number of compared districts;

j – index number of the indicator, $j = (1 \dots m)$, где *m* – is the number of indicators, used for the rating formation;

лучший (best) – the best value of the *j*– indicator for sampling from *n* districts;

худший (worst) – the worst value of the *j*– indicator for sampling from *n* districts;

k_{ij} –numerical value of the *j*-indicator in the *i*-district.

Based on the source data, a set of normalized indicators is obtained, which are used for comparison.

Collation of the values of each indicator with the best possible value from the entire sampling makes it possible to show how much the value of this indicator for a given district differs from the optimal value.

As a result, a matrix is formed of normalized distances of the coordinates of the points of the studied indicators to the coordinates of the point of the reference value for each indicator.

2. Calculation of Euclidean distance.

To form the rating, each district must be compared with a conditional district (it may be present in fact in the sampling of districts), in which the value of each indicator describing it is a reference value.

All the estimated districts are in a multidimensional space, where, firstly, the normalized values of indicators for each region act as coordinates, and secondly, the reference (conditional) district for the sample has the following coordinates: (0, 0, 0, ..., 0) and is the starting point for rating formation.

The main task in calculating the Euclidean distance is to determine how far each district is removed from the reference area in the multidimensional space.

Calculation of the Euclidean distance in the framework of this methodology takes the following form and is carried out according to the formula:

$$p_i = \sqrt{\sum_j w_j (0 - \hat{k}_{ij})^2},$$

where

p_i – is the Euclidean distance for i-district;

w_j – is the specific gravity of the j-indicator (for example, the distance from the gas pipeline to the populated locality, population number, etc.). It is set subjectively, depending on the significance of a particular indicator for the overall assessment.

In it

$$\sum w_j = 1$$

k_{ij} – is the normalized value of the j-indicator for the i-district, its calculation method is shown above.

0 - is present in the formula for a visual demonstration of conditionally standard (best) district, relative to which the attractiveness for gasification is evaluated. The conditional best district in m-dimensional space is the coordinate origin, i.e. has coordinates (0,0,...,0).

The resulting Euclidean distance demonstrates how far each of the districts in the set of all considered indicators is removed from the conditionally reference district. The smaller the resulting Euclidean distance, the closer the estimated district to the conditionally reference district.

3. Rating formation.

As a result, the total Euclidean distance for each studied district is obtained on the entire set of indicators. The smallest value of a given distance for a district will mean its closest proximity to a conditionally benchmark indicator. Further, places in the rating are ranged as the value of the Euclidean distance increases.