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Title: **KPO Energy Policy and Green Rules**

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Revision History

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**Document Verification
 RACIE Record**

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HSE Document

Legal Compliance Aspect

Executive Summary

This policy has been developed in compliance with the requirements of the Energy Management System standard ISO 50001 for use as guidelines in definition and analysis of energy efficiency goals and targets. In addition, PEST (political, economic, social and technological) analysis carried out in order to define and assess the factors, that have impact on the ability of KPO to improve the energy characteristics (Appendix 3). The analysis also includes overview of current carbon regulations and GHG reduction commitments. The strengthening of the carbon regulation in Kazakhstan may create a serious challenge to KPO, as one of the top GHG emitters in the country. Despite the current uncertainties regarding the carbon regulation options, KPO should keep studying possible options for reducing greenhouse gases in the short and long terms. KPO also needs to take the initiative and engage in an active dialogue with the shareholders, state, LLP PSA authority and other interested parties in order to jointly determine the strategy for future development of the Field and create favourable conditions for the technology investments.

KPO pays great attention to the environmental issues in production and has achieved excellent indicators of environmental and energy efficiency. Concurrently, there is a global focus on personal approach to eco-friendliness, green thinking and conscious consumption. The Republican contest “Green office”, which is aimed at shaping an environmental lifestyle and thinking as well as promoting green technologies, is annually held in Kazakhstan. It is assumed that an employee who thinks about environmental friendliness in his life will carefully use the Company's resources and will be more loyal to the introduction of green technologies and practices.

KPO supports this idea and Green Rules are developed to support existing procedures of environmental and energy management systems and “Green Office” concept implementation in KPO.

KPO Green Rules are intended to promote environmental awareness, inspire demand for change, and motivate personnel to act and to reduce individual environmental footprint as well as Company's impact.

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1. PURPOSE

The purpose of Energy Policy is to provide guidelines for setting and analysing energy efficiency goals and targets. KPO Energy Policy is an integral part of the long-term development plan for the field and contributes to achievement of the Company's strategic goals and targets.

Green Rules have been developed to ensure more effective implementation of environmental and energy policies and procedures and contain clear and simple instructions for all KPO personnel and contractors on how to contribute to environmental improvement.

2. SCOPE

The scope of Energy Policy is all main and auxiliary processes of the Company that have an impact on energy consumption and are carried out both within the Company and in the interests or on behalf of the Company in frames of main activities of its contractors and visitors.

KPO Energy Policy covers all types of energy resources consumed by the Company in frames of the Company's main and auxiliary processes, as well as in the interests or on behalf of the Company.

The boundaries of energy management system apply to all assets owned and operated by KPO, including all KPO structural subdivisions, regardless of their geographical location and affiliation.

3. ROLES AND RESPONSIBILITIES

The requirements of Energy Policy apply to all KPO employees, as well as to all persons working for or on behalf of KPO, including contractors and visitors, regardless of their position, sphere of responsibility and degree of their influence on KPO energy characteristics.

Formation of careful attitude to energy resources and energy-efficient behavior is possible if each employee provides the necessary support and observe the requirements of this policy. Each employee of the Company, a representative of contracting organizations and a visitor should make their own contribution to implementation of KPO Energy Policy and reduction of energy intensity.

Each employee of the Company is personally responsible for implementation of Energy Policy at their workplace and for rational use of fuel and energy resources within scope of their competence and possibilities.

Managers of structural subdivisions are responsible for correct understanding and implementation of the requirements of Energy Policy by each employee of subdivision.

Leadership role in implementation of the KPO Energy Policy is assumed by the Company's management while committing to:

- ensure that the requirements of energy management system were integrated into KPO business processes;
- ensure that the duties, responsibilities and authorities to perform the relevant functions/duties within the energy management system were established and communicated to the relevant employees of the Company, its contractors and visitors;
- bring the Energy Policy to attention of all employees of the Company, contractors and visitors;
- provide leadership at all levels during development and implementation of plans of measures aimed to energy conservation, energy efficiency improvement and decarbonization of Company's main and auxiliary processes;

- allocate the necessary resources to achieve the set goals and objectives on reduction of energy intensity of the Company, as well as the resources necessary for creation, application (use), maintenance in serviceable condition and continuous improvement of energy characteristics and energy management system;
- promote a culture of energy conservation and energy efficiency in the Company;
- provide motivation and training for personnel whose activities have an impact on the Company's energy performance;
- support the Company's employees in demonstrating their leadership to that scope and in the form which corresponds to their area of responsibility;
- establish and keep a process in which all employees working for or on behalf of the Company have the opportunity to provide comments or make suggestions for improving of energy management system and its energy characteristics;
- encourage and support any economically feasible initiatives of employees aimed at improving of energy efficiency of the Company.
- analyze and regularly review this Energy Policy.

4. KPO ENERGY POLICY

KPO ranks among leading oil and gas companies in Kazakhstan, being both a consumer and supplier of fuel energy resources (FER) and recognizes the need for rational use of FER and the improvement of its energy performance.

KPO assumes responsibility for preserving favourable conditions for future generations and contributes to achieving target of reducing energy intensity and decarbonisation of Kazakhstan's economy, by committing to:

- ensure compliance with legal, regulatory and other requirements of the concerned parties, associated with application of consumed energy and energy performance;
- continuously improve its energy efficiency and performance;
- look into opportunities of utilising renewable energy sources;
- improve production processes and practices;
- support purchasing of energy-efficient products and services that affect the energy performance;
- consider energy performance improvement opportunities during the design;
- promote and enhance energy-efficient and low-carbon culture within the Company.

Top Management is committed to:

- demonstrate leadership by personal example;
- promote development of energy-efficient culture;
- provide continuous enhancement of personnel' competence and qualifications;
- allocate necessary resources;
- analyse Company's energy consumption and regularly update this Energy Policy.

We expect from KPO's employees, contractors and visitors:

- responsible attitude to energy resources and their rational use;
- adherence to KPO "Green Rules";
- initiatives and recommendations aimed at improvement of Company's energy performance;
- increased personal responsibility for achieving KPO's strategic targets, goals and objectives that arising from this Policy.

This Policy will be actively communicated to all employees, contractors and visitors. (Appendix 1).

5. KPO GREEN RULES

5.1 What Does It Mean to Be Green?

To be "green" is about becoming aware of how your personal behavior and working practices impact the environment, and making changes that reduce your environmental "footprint" and make the business more sustainable.

This often includes measures to reduce the raw materials, water and energy that we use, and to minimize the waste that all of us produce in our daily life.

5.2 Why Green attitude so important?

Many of us want to "do our bit" for environment protection, and there are many good reasons to do so. For example:

- Preventing pollution of surrounding environment, can improve our health;
- Protecting environment means that we can continue to enjoy our natural world;
- and reducing consumption preserves resources for the future.

5.3 KPO Green Rules:

1. Reduce usage of disposable plastic items where possible at office and home.
2. Save water. Fresh water is one of our most precious natural resources.
3. Use available resources efficiently.
4. Minimize quantity of food waste.
5. Save electric energy and use energy resources in effective way.
6. Reduce usage of disposable plastic bags and promote use of ecobags.
7. Separate waste.

Green ideas have the biggest impact when they are a group effort. And, regardless of your role or position, you can inspire others to join in. For example, you can:

- Assess your environmental impact and identify areas for improvement. These could include reducing waste, recycling more, and using less energy, water.
- Share your passion. If you feel strongly about making your place greener, don't hide it. Start discussions and share your knowledge! Sometimes, simply raising awareness is enough to prompt action;
- Keep an eye on the latest developments. Consider how an environmentally friendly approach might apply to your workplace, now and in the future;

6. APPENDIXES

6.1 Appendix 1 KPO Energy Policy



KPO ENERGY POLICY

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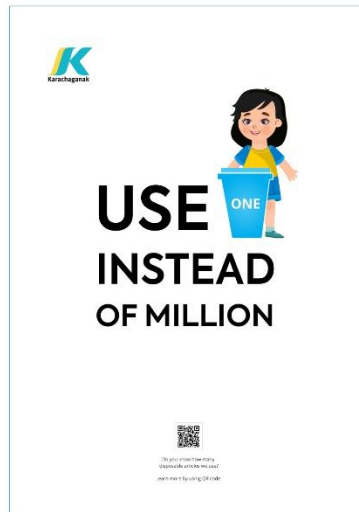
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- adherence to KPO "Green Rules";
- initiatives and recommendations aimed at improvement of company's energy performance;
- increased personal responsibility for achieving KPO's strategic targets, goals and objectives that arising from this Policy.

This Policy will be actively communicated to all employees, contractors and visitors.

General Director  Giancarlo Ruii September, 2021

6.2 Appendix 2 KPO Green Rules



2020
 ҚҰДЫҚ ҚҰРҒАҒАНША
 СУҒА ІЗДЕУ ЖОҚ

2040
 ВОДУ МЫ ЦЕНИМ,
 КОГДА ВЫСЫХАЕТ КОЛОДЕЦ

2060
 WE NEVER MISS WATER
 UNTIL THE WELL RUNS DRY



Do you know how important it is to conserve water resources?
 Join in more by using QR code.



**БАС ТАРТ, ҚЫСҚАРТ,
 ҚАЙТАДАН ҚОЛДАН,
 ӨНДЕЛУІН ҚАМТАМАСЫЗ ЕТ**



Бүгінгі таптарды қысқартып жетілдіретін заманмыз. Біздің біз.
 Сірәнені ҚТ қайта ұяла біле білеміз.

**ОТКАЖИСЬ, СОКРАТИ,
 ИСПОЛЬЗУЙ ПОВТОРНО,
 СДАЙ НА ПЕРЕРАБОТКУ**



Бүгінгі таптарды қысқартып жетілдіретін заманмыз. Біздің біз.
 Сірәнені ҚТ қайта ұяла біле білеміз.

**REFUSE, REDUCE,
 REUSE, RECYCLE.**



Do you know how many
 disposable articles we use?
 Learn more by using QR code.



6.3 Appendix 3 PEST analysis

The table below reflects the outcomes of the PEST analysis, carried out in order to define and assess the factors, that have impact on the ability of KPO to improve the energy characteristics of the Company. All the factors have been identified according to the impact level: High (H), Medium (M) and Low (L).

Political factors	Impact	Economic factors	Impact
Kazakhstan is intending to achieve carbon neutrality by 2060.	H	The implementation of activities on energy efficiency increase and energy saving in Kazakhstan is voluntary. For industrial enterprisers the economic incentives for improving the energy efficiency of production are not provided;	H
Currently, Kazakhstan is working on the development of Low-Carbon Development Concept of Kazakhstan until 2050. It is expected that this work will be completed in August 2021.	H	New Environmental Code envisages mechanisms of financial support for implementing BAT principles;	H
As part of the Paris Agreement, Kazakhstan declared about its unconditional target to reduce the level of national greenhouse gas (GHG) emissions by 15% until December 31 of 2030 against base level of 1990. Currently, the Road Map is being developed to achieve Nationally Determined Contributions (NDC) in the period of 2021-2025.	H	Due to Kazakhstan's commitments on carbon neutrality and relevant ongoing changes in legislation, carbon regulation enhancement, significant reduction of free GHG quote and carbon price growth is expected.	H
On 21 July 2020, European Union took a decision that starting from 1st January 2023 it will introduce carbon border adjustment mechanism (CBAM), under which the exporters of the goods in 27 countries of the Union will be obliged to pay a fee for the carbon emissions, resulting from the production of their goods. Meanwhile, the suppliers from the countries with the same adjustment mechanisms, consistent with those being planned to be introduced in the EU, may be exempted from the	H	The projects aimed at energy efficiency increase are considered by KPO as investment projects with respective requirements to the project profitability, that limits the implementation of technically possible energy saving and energy efficiency increase initiatives. Such projects should be considered as strategic with their profitability not being the only driver for the implementation.	H

payments.			
Kazakhstan adopted a new Environmental Code that would envisage the transfer to BAT principles, which is also aimed at energy saving and energy efficiency increase;	H	In accordance with the Law “On Support of the Use of Renewable Energy Sources”, KPO concluded a contract with Financial Settlement Centre, according to which being a conditional consumer (Buyer), purchases electricity from FSC (Seller) in accordance with the Law and its own electricity production share in the Western Zone;	M
KPO Operating Companies (Shell, Eni) established carbon neutrality goals and support KPO in an efforts to increase energy efficiency and reduce GHG emissions;	H	As a result of the reduction of prices for RES technologies in Kazakhstan the volume of power supply generated by RES (3 % in the total volume of electricity production based on the results of 2020) was significantly increased. The target for 2030 is 15%;	M
JOC (Joint Operating Committee) approves costs for implementation of investment projects, the chairman of which is PSA LLP General Director and the position of PSA LLP is fundamental in decision making;	H		
PSA LLP takes a rational position on the matters of energy saving, energy efficiency increase and reduction of GHG, RES, not giving them priority against other investment projects;	H		
Kazakhstan adopted the Law “On Support of the Use of Renewable Energy Sources”;	M		
As part of Final Production Sharing Agreement (FPSA), KPO is committed to supply electrical power for the WKO community needs, with capacity of at least 20 MW. In fact, currently, about 42 MW	M		

is supplied in wintertime, and 27-42 MW in summer time.			
Social and cultural factors	Impact	Technological factors	Impact
In the new Environmental Code the public role was strengthened through provision of access to all stages of EIA and possibilities to influence on the process;	M	KPO facilities have more recently been commissioned; due to this quite high level of energy efficiency was noted at the enterprise. Specific indicators of KPO GHG are lower the level of European and international indicators taken from the IOGP report;	H
KPO personnel are notable for high production competencies; however, the energy saving culture is not fully developed.	M	Energy audit and benchmarking results showed that waste heat recovery at gas turbines is the most significant energy saving potential in KPO.	H
There is a trend in the world for personal environmental friendliness, eco-friendly thinking and conscious consumption, also among the residents of the region where KPO facilities operate;	L	KPO takes measures to maintain plateau of liquid hydrocarbons production, as well as plans a number of activities to increase production, mainly it is related to the increase of sour gas reinjection volume (construction of 5th and 6th compressor).	H
		Company`s priority is to ensure reliable and safe operation of process equipment.	M
		KPO is located in West Kazakhstan Oblast (WKO), which is related to Western Energy Zone and is not connected with the Northern and Southern Energy Zones which limits KPO`s opportunities for transmission of electrical energy.	M
		KPO independently generates heat and electricity for its own needs and practically does not consume energy resources from external parties.	M

Conclusions:

- The Policy for strengthening the carbon regulation in Kazakhstan may create a serious challenge to KPO, as one of the top GHG emitters in the country. Despite the current uncertainties regarding the carbon regulation options, KPO should keep studying possible options for reducing greenhouse gases in the short and long terms;
- The ongoing energy transition for the first time in history is caused not by economic reasons and requires input from the regulators to support the transformation. KPO needs to take the initiative and engage in an active dialogue with the shareholders, state, LLP PSA authority and other interested parties in order to jointly determine the strategy for future development of the Field and create favorable conditions for the technology investments, that are not paying for themselves in the existing conditions, but have long-term value.