“CENGIZ ENERJI SAN. VE TIC A.Ş.”

Construction of a combined-cycle gas turbine power plant with a capacity of 550 MW

Environmental and Social Impact Assessment

Final report

Book 1

125-1105-ESIA

REGISTRY OF DOCUMENT VERSIONS

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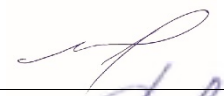
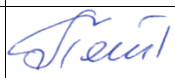
LIST OF PERFORMERS

Head, Project Coordinator	O. Vakhidova-Mordovina	
Chief sociologist	B. Mavlyanov	
Sociologist, communications specialist	M. Rasulmetov	
Ecologist/Atmospheric air specialist	N. Limankina	
Chief ecologist	G. Petrayeva	
Ecologist	L. Konanyuk	

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TERMS AND DEFINITIONS

Associated facilities	Associated facilities are facilities that are not financed by the project and that would not have been built or expanded if the project had not been implemented, and without which the project would not be viable (IFC Performance Standard 1)
Impact on the environment and social conditions	Environmental and social impacts refer to any change, potential or actual, to the physical, natural, or cultural environment, and impacts on the surrounding community and employees, resulting from the business activity to be supported (IFC Performance Standard 1)
Stakeholder	A person or an organization that may influence, be influenced by, or perceive themselves to be influenced by activities or decision-making
The Client, and the initiator of the planned activity, and the Company	"CENGIZ ENERJI SAN. VE TIC A.Ş"
Area of influence	An area that may be affected by: (i) the project, its activities and facilities of the Customer, directly operated or managed by it (including its contractors) and included in the Project; (ii) the impacts of unplanned but foreseeable circumstances caused by the Project that may occur at a later time or somewhere else; or (iii) indirect impacts of the Project on biodiversity or ecosystem services upon which the affected communities' livelihoods are dependent (IFC Performance Standard 1)
Zone of influence of pollutant emissions into the atmosphere	The territory formed by the isoline of concentration equivalent to 0.05 MPC for all sets of sources of chemical pollution of atmospheric air for all pollutant emissions
Initiator of the proposed activity	A legal or natural person who intends to carry out the proposed activity and who is responsible for preparing the documentation for the activity in accordance with the regulatory requirements for this type of activity, in order to obtain the relevant permits
Critical habitat	Critical habitat is an area that has high biodiversity value, including (i) sites required for the survival of critically endangered and(or) endangered species or areas with special significance for endemic or restricted-range species; (iii) sites that are critical for the survival of migratory species and(or) schooling species with global significance; (iv) highly endangered ecosystems and(or) unique ecosystems and(or) (iv) territories associated with key evolutionary processes (IFC Performance Standard 1)
Cumulative impacts	Impacts arising from additional impacts on the scope of activities or resources used in or directly affected by the project as a result of other existing, planned or realistically determined circumstances during the identification of risks and impacts; generally recognized as significant based on scientific opinion and/or based on the affected communities' concerns (IFC Performance Standard 1)
Makhalla	Makhalla – residential quarter of a city, usually forms a community and a self–governing administrative unit of residents. Makhalla in a broad sense refers to a district or a local community. Promoting it as a 'traditional institution', the Uzbek government has embraced makhalla as a 'fundamental unit' of society. Makhallas were legitimised into law in 1993 under the Law on Institutions of Self-Government of Citizens, otherwise known as the Makhalla Law. Almost every Uzbek technically belongs to a makhalla and in general no one can be excluded based on class, profession or religion. (https://uzbekistangid.ru/kultura/chto-takoe-mahallya-v-uzbekistane)
Environmental and social impact assessment	A set of works that includes the identification, prediction and assessment of the planned activities impact on the components of the environment and socio-economic conditions, including the analysis of alternative options for planned activities, identification of conditions for their implementation and development of measures in the field of environmental and social management, accompanied by the disclosure of relevant information about the activities and consultations with stakeholders

Lenders	Financial institutions that provide funding for projects and are responsible for assessing and managing the environmental and social risks associated with these projects before committing capital. These lenders, including banks and international financial institutions, use the ESIA process to ensure that projects are sustainable, compliant with standards like the Equator Principles, and have measures in place to mitigate potential negative impacts on the environment and society. Financing of the Project is being sought from; DenizBank AG, Wien, Austria, and DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main, Germany
Post-project analysis	Monitoring activities during construction and operation of facilities, monitoring compliance with stipulations and requirements, monitoring the effectiveness of measures to prevent/minimise impacts, comparing the conclusions of the environmental impact assessment with actual impacts, and developing additional measures (if necessary)
Project	Intended activity - "Construction of Combined-Cycle Gas Turbine Power Plant with a Capacity of 550 MW"
Recipient(s)	Component(s) of the natural or social environment affected by the proposed activity, in particular: the natural environment and its individual components; population, individual social groups, objects of cultural heritage, etc.
Territories with normalized indicators of the quality of the human habitat	Territories in which hygienic standards of atmospheric air should be provided for chemical, biological and physical indicators of the quality of the human habitat: any residential development; educational and children's institutions; sports facilities and playgrounds; playgrounds; recreational areas; medical-preventive and health-improving institutions of general use resorts, sanatoriums, rest houses; horticultural associations, collective or individual suburban and gardening plots
Khokimiyat	Administration of the city or district
Environmental aspect	An element of an organization's activities, products or services that interacts or may interact with the environment (ISO 14001:2015)

ABBREVIATIONS

TCFD	Task Force on Climate- related Financial Disclosures
LLC	Limited Liability Company
EBRD	European Bank for Reconstruction and Development
IAAP	Index of the atmospheric air pollution
RES	Renewable energy sources
ICO	International credit organizations
MRCC	Mechanism for receiving and considering complaints
IFC	International Finance Corporation
ESIA	Environmental and social impact assessment
ACI	Assessment of cumulative impacts
EHS	General Environment, Health and Safety Guidelines
OECD	Organisation for Economic Co-operation and Development
SEP	Stakeholder Engagement Plan
GHGs	Greenhouse gases
MPE	Maximum permissible emission
MPD	Maximum permissible discharges
PSW	Project environmental standards for the generation and disposal of waste
MPC	Maximum permissible concentrations
MPCmo	Maximum allowable concentration of a pollutant in the atmospheric air, maximum one-time
MPCad	Maximum permissible concentration of the pollutant in the atmospheric air, average daily
RCM	Resolution of the Cabinet of Ministers
RUz	The Republic of Uzbekistan
SanR&N	Sanitary rules and norms
PS	Performance standards
SPZ	Sanitary protection zone
PRS	Public relations specialist
TNIQ	Territories with normalized indicators of the quality of the human habitat
Uzhydromet	Center of the Hydrometeorological Service of the Republic of Uzbekistan
AACI	Accelerated assessment of cumulative impacts
VESC	Valuable environmental and social component
ECA	Export credit agencies

1 INTRODUCTION

The Environmental and Social Impact Assessment (hereinafter - ESIA) for the project “Combined-cycle gas turbine power plant with a capacity of 550 MW” (hereinafter - the Project of combined-cycle power plant) has been prepared for the potential financing of the Project-by-Project Lenders.

The Project developer “CENERGO” LLC (the “Borrower “) under Cengiz Enerji A.Ş. (“Cengiz”) are constructing the Project on a Build-Own- Operate model (the “Project”).

Financing of the Project is being sought by CENERGO LLC from DenizBank AG, Wien, Austria, and DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main, Germany

The Project will comply with the Uzbek laws that pertain to environmental and social issues, OECD Common Approaches, Equator Principles IV (July 2020), IFC Performance Standards (January 2012), World Bank Group General Environmental, Health and Safety (EHS) Guidelines, World Bank Group EHS Guidelines for Thermal Power Plants (2007), The UN Guiding Principles on Business and Human Rights, and international environmental law including relevant conventions and treaties applicable to the Project;

The project provides for the construction of a Combined-cycle gas turbine power plant with a capacity of 550 MW consisting of 1 gas turbine unit (GTU) “Siemens S SGT5-4000F V10”, 1 unit of a steam turbine (ST) “Siemens SST-700/900”, with a capacity of 185.3 MW, manufactured in Germany, with the necessary buildings and auxiliary facilities and with the creation of an appropriate infrastructure on the territory of a combined-cycle gas power plant with a capacity of 550 MW in Sharaf-Rashidov district, Jizzakh region. The total generation of electric energy from the combined-cycle power plant will amount to 4 000 000 MWh per year.

The total area of the allocated site for the construction of a combined cycle power plant is 9.43 hectares.

The territory for the construction of the gas turbine power plant will occupy 2.91 hectares, 3.65 hectares will be used for parking spaces, roads inside the facility, and a customs clearance area. 2.83 hectares will be allocated for landscaping, the general master plan of the enterprise is presented in (Figure 1).

The project provides for the construction of off-site facilities: a new access road with a length of about 90 meters, and 2 power lines of 220 kV (overhead lines, power lines) with a length of about 7 and 9 km from the designed power plant to the existing substations, the route of the gas pipeline and water supply has not been determined for the period of environmental design.

During the construction of the power plant, about 650 builders will work on the territory of the construction site, 600 of them are employees, 50 are engineering and technical personnel.

At the first stage of the ESIA, a preliminary assessment of the planned activities was carried out based on materials provided by the Customer, information collected in open (available) sources, as well as based on data from analogue facilities. As a result of these works:

- applicable national and international ESIA requirements have been identified;
- the collection, processing and analysis of available information on the natural and socio-economic conditions of the area of the planned activity was completed;
- impact recipients identified;

- stakeholders have been identified;
- initial consultations with stakeholders were held;
- preliminary identification and assessment of the impacts of the planned activity;
- categorization of the project has been carried out.

The results of the preliminary assessment are documented in the preliminary environmental and social assessment report – Scoping report, report code 125-1105-SR.

Scoping report agreed upon by "CENERGO" LLC, "CENGIZ ENERJI SAN. VE TIC A.Ş." and creditors in May 2024

As part of the disclosure of information on the project, the materials of the preliminary assessment and the EPA are posted on the Customer's website for review by interested parties.

In April – September 2024, in order to assess the impacts and develop measures to prevent and/or minimize negative impacts, the Consultant implemented a set of works provided for by the TR for the ESIA. Works included:

- baseline studies;
    - assessment of chemical pollution of atmospheric air;
    - assessment of the state of soils and grounds;
    - assessment of the state of surface and ground waters;
    - biological diversity research;
    - acoustic research;
    - socio-economic research;
- collection of initial data:
    - meteorological and climatic data;
    - data on water use and waste management system;
    - information about cultural heritage sites;
- special types of research:
    - traffic intensity analysis.

The work at this stage resulted in the following:

- methodological approaches to impact assessment have been substantiated;
- the initial environmental and social conditions of the zone of influence of the planned activity are determined;
- assessment of the impacts of the planned activities on the environment and social conditions has been carried out;
- a set of measures to prevent and/or minimize negative impacts is justified;
- planned activities for interaction with stakeholders have been implemented.

1.1 Brief description of the planned activity

The territory of the 550 MW combined-cycle power plant includes an industrial site in Sharaf-Rashidov district (Jizzakh region), the main technological divisions of the enterprise are located at the site in the eastern part of Jizzakh city (5.5 km) (*Figure 1*).

Figure 1 Area of planned activity

The total generation of electric energy at the power plant will be 4 000 000 MWh per year.

It is planned to install a Siemens “Siemens SGT5-4000F V10” gas turbine unit (GTU) with a capacity of 365.3 MW (50 Hz), manufactured in Germany (1 unit) on the allocated territory.

Also, at the planned power plant, electric energy will be generated using a steam turbine (PT) “Siemens SST-700/900”, with a capacity of 185.3 MW, manufactured in Germany (1 unit).

The impacts of the following power plant facilities are considered within the framework of the ESIA:

- gas turbine unit (GTU) "Siemens SGT5-4000F V10", with a capacity of 365.3 MW (50 Hz)
- steam turbine (ST) "Siemens SST-700/900", with a capacity of 185.3 MW
- water treatment plant;
- 'Heat Recovery Steam Generator' (HRSG),
- water-cooling condensers
- transformers
- wastewater treatment plant
- switchyard
- control room
- administration, and welfare buildings
- a new driveway road to the power plant with a length of about 90 meters – displayed on the general master plan;

Additionally, the project design includes a treated effluent discharge point that will release into an existing drainage ditch located near the south-eastern corner of the project site.

Associated facilities (Water Supply Pipeline, Electricity and Gas Pipeline) of the Project at the time of the ESIA studies were at the discussion and design stage during the ESIA preparation.

2 power lines with a length of approximately 8 and 10 km from the project area to the existing 220 kV overhead lines L-20-D and L-Z-C. – draft scheme for the power output of a thermal power plant with possible connection options has been developed.

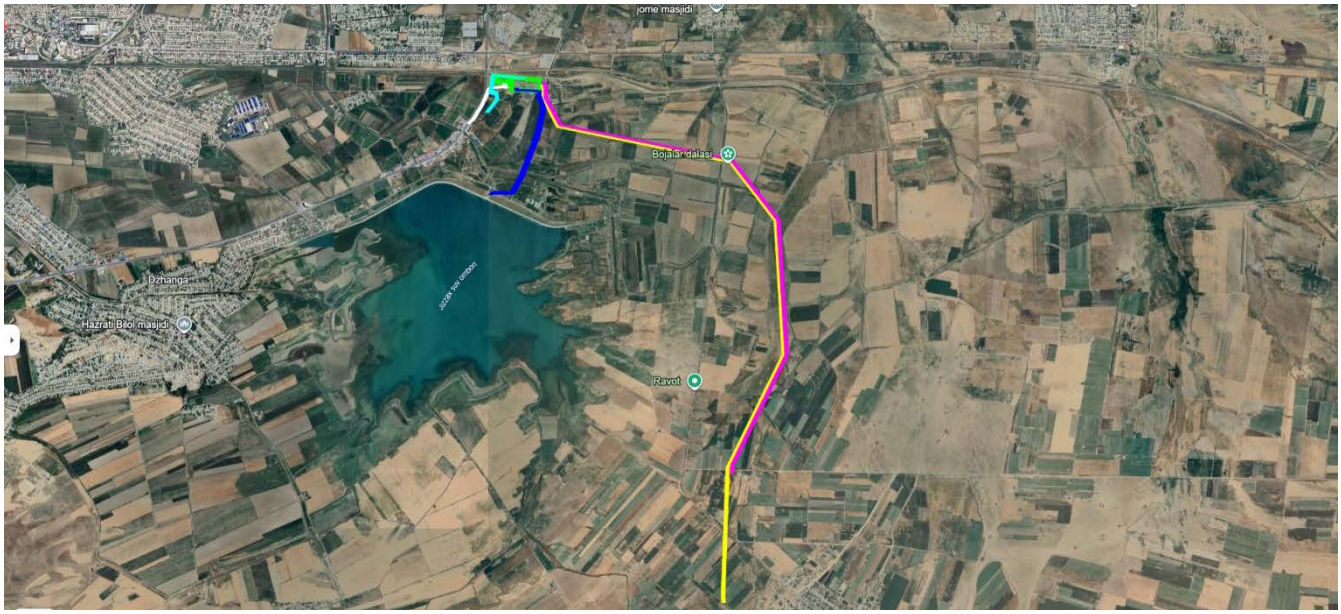


Figure 2: Associated Facilities Road

According to the current situation of the associated facilities; the Electricity (**Pink** and **yellow** lines in the map): the local EIA study has been completed by the local authority (National Electric Networks of Uzbekistan) and EIA Approval was obtained on **15.09.2025**, lines with a length of approximately 8 and 10 km from the project area to the existing 220 kV overhead lines L-20-D and L-Z-C. – A draft scheme for the power output of a thermal power plant with possible connection options has been developed.

The water supply pipeline (**The Dark Blue** line in the map): the local EIA study has been completed by the local authority (Water Authority), and EIA Approval was obtained on **23.07.2025.**

The natural gas pipeline (**Turquoise** line in the map), the local EIA study has been completed by the local authority (TRANSGASENGINEERING LLC) and EIA Approval was obtained on **24.03. 2025**,

A separate ESIA Addendum (independent from this ESIA) is being prepared on behalf of the project lenders, in accordance with the project financing agreement. This addendum aims to identify and address any gaps between the national EIA process conducted for regulatory approval in Uzbekistan and the environmental and social requirements of the lenders.

1.2 Purpose and objectives of the ESIA

According to the terms of the Agreement between the Consultant and “CENERGO” LLC, the ESIA is carried out in accordance with the requirements of the Landers.

IFC Performance Standard 1 (hereinafter referred to as the PS) “Assessing and Managing Environmental and Social Risks and Impacts” defines the following objectives:

- identification and assessment of environmental and social risks and impacts of project implementation;
- adoption of a hierarchy of warning and prevention mechanisms, or, if this is not possible, minimizing and, if residual impacts persist, compensating/reimbursing the consequences of risks and adverse impacts on employees, affected communities and the environment;
- stimulating the improvement of the environmental and social performance of customers through the application of effective management systems.
- ensuring that complaints from affected communities and communications from other stakeholders are answered and that issues raised in them are appropriately addressed;
- facilitating appropriate engagement with affected communities throughout the life cycle of the project on issues that may potentially affect them, providing appropriate funds for this, and ensuring the disclosure and dissemination of relevant environmental and social information on the project.

To achieve these goals, the following tasks have been completed within the framework of the ESIA project:

- analysis of the initial state of the components of the environment and the socio-economic conditions of the area of the planned activity;
- characteristics of the sources of the project’s impacts on the environment and social conditions;
- identification and analysis of the impact of the planned activity on the environment and social conditions;
- forecast of the state of the environmental components of the area and the socio-economic conditions of the area of the planned activity during the implementation of the project;
- development of measures for warning and prevention or, if this is not possible, minimization of negative impacts and related consequences, assessment of their effectiveness;
- preparation of proposals for monitoring the state of environmental components and socio-economic conditions of the area of planned activities.

Based on the results of this stage of work, it is envisaged to create an Environmental and Social Management System for the project, based on the existing management system of the project company and supplemented with the necessary action plans and the corresponding organizational structure. The plans will take into account the results of the ESIA.

1.3 Sources of information

To solve the problems mentioned above, the following materials were used.

I. Documentation provided by the Customer

- Project documentation:
- The Project of Environmental Impact Statement (PEIS) for the construction of a 550 MW combined-cycle power plant in Sharaf-Rashidov district, Jizzakh region.
- Power distribution scheme in connection with the construction of a new 550 MW thermal power plant (TPP) in the Jizzakh region No. 2310-2;
- conclusions of the State ecological expertise and authorized bodies in the field of environmental protection;
- technological schemes of production, description of technology, technological regulations;
- Report of the preliminary assessment of the ground and geotechnical characteristics of the construction site;
- Technical proposal of NEM Energy B.V for the supply of equipment;
- Siemens Energy technical proposal for the supply of equipment.

The Consultant is under no circumstances responsible for the completeness and reliability of the source data provided by the Customer.

II. Open-source data

- General plan and urban planning documents of the Jizzakh region, available online on the SUPC geoportal of the Republic of Uzbekistan https://dshk.uz/main #;
- The open map data of the OpenStreetMaps portal used under the Open Data Commons Open Database License (ODbL) from the OpenStreetMap Foundation (OSMF), available on the portal https://www.openstreetmap.org/ а также https://nextgis.com/;
- Remote sensing data available online through the Google Maps service https://www.google.com/maps.
- FAO AQUASTAT Country Profile - Uzbekistan, Food and Agriculture Organization of the United Nations, 2020

III. Baseline studies results

In April - September 2024, the Consultant performed baseline studies, the results of which collected the following data on the area of planned activity:

- socio-economic characteristics;
- chemical pollution of atmospheric air;
- pollution of soils and grounds;
- state of surface and ground waters;
- biological diversity (flora and terrestrial fauna); (Additional biodiversity studies for Jizzack Reservour and determined points were performed in August and September 2025)
- acoustic environment.

The results of the baseline studies are summarized in the reports attached to the ESIA materials.

1.4 Limitations and assumptions

The conclusions of the assessment are based on the Consultant's professional experience, which makes it possible to analyze design solutions for compliance with the requirements in the field of environmental protection established by the legislation and by-

laws of the Republic of Uzbekistan, as well as the IFC requirements proposed for accounting by the Customer.

The assessment was carried out solely on the basis of the documentation provided by the Customer, taking into account data and information obtained from open sources (information about the public reaction in connection with the implementation of the project, data on the state of the natural environment, materials from public cadastres, etc.) and baseline studies materials.

Under no circumstances will the Consultant be responsible for possible deficiencies in the ESIA materials related to the quality and/or relevance of the source data provided by the Customer.

Associated facilities (projects) of the project are an access road to the power plant with a length of about 90 meters and power lines with a length of 8 and 10 km, a gas pipeline and a water supply (for more information, see section 4).

As of January 2025, associated facilities are under discussion and initial design, there is no data on exact and approved routes.

Thus, in relation to associated facilities, information reflecting the current status of projects is presented in the materials of the ESIA:

- environmental and social impact assessment is not carried out;
- action plans to prevent/minimize negative impacts on the environment and social conditions are not developed;
- measures to monitor the impact on the environment and social conditions are not substantiated.

To assess the fulfillment of the requirements of SD-5, the following are carried out:

- retrospective assessment of the implementation of procedures related to the acquisition of rights to a land plot for the construction of an object (socio-economic audit);

A gap analysis and a comparison table will be conducted regarding national EIAs (which will be the responsibility of local authorities) and international requirements (IFC standards—lenders' expectations) and will consider commitments that were mentioned in the EIA for associated facilities.

1.5 Report structure

ESIA Report (Preliminary Report) consists of three books:

- Book 1 of the ESIA report (this document) contains general information about the project and the work carried out within the framework of the ESIA (goals, objectives, limitations, research methodology);
- Book 2 of the ESIA report (125-1105-ESIA-P0-2) was prepared based on the results of baseline studies carried out as part of a separate stage of work, and is devoted to consideration of the environmental and social conditions of the area of the proposed activity. Specifically, book 2 provides the following information:
- natural conditions of the area of planned activity:
- climate;
- relief;
- engineering-geological conditions;
- the groundwater;

- soil;
- vegetation;
- animal world;
- territories with special conditions of use;
- assessment of the existing ecological state of the area of planned activity:
- atmospheric air quality;
- the impact of physical factors;
- acoustic environment;
- vibration environment;
- quality of surface and ground waters;
- soil;
- socio-economic conditions of the area of the proposed project activity;

Book 3 of the ESIA Report (125-1105-ESIA-P0-3) contains:

- forecast of the state of the environmental components of the area and the socio-economic conditions of the area of the planned activity during the implementation of the project;
- proposals for measures to warn/prevent or minimize negative impacts;
- proposals for monitoring the state of environmental components and socio-economic conditions of the area of planned activities.

Table 1 provides information for reference on individual reports prepared during the implementation of various activities, including baseline studies within the framework of the ESIA project, which supplement the ESIA report.

Table 1: The composition of the studies carried out within the framework of the ESIA project

Item	Name of the document	Code	Note
1.	- Studies of the state of atmospheric air. Monitoring of chemical pollution of the atmospheric air - Acoustic research - Research of the grounds, surface and groundwater	125-1105-BIO	-Monitoring results using the Zephyr sensor -Results of measurements of noise, vibration and infrasound Research results: soils (grounds) - surface and groundwater
2.	Research of the plant world	125-1105-BIO-Flora	Results of geobotanical research
3.	Animal world research	125-1105-BIO-Fauna	The results of zoological studies of terrestrial wildlife

2 REQUIREMENTS FOR THE PLANNED ACTIVITY AND ESIA

2.1 National legislation

2.1.1 Environmental and social policy

The Republic of Uzbekistan has created a national environmental, legal and institutional framework, regulated by the state policy in the field of nature protection and national guidelines to promote the sustainable use of natural resources and environmental protection, based on the following principles:

- the priority of protecting the health of human life.
- integration of economic and environmental policies aimed at preserving and restoring the environment as a necessary condition for improving the living standards of the population;
- transition from the protection of individual natural elements to the general and integrated protection of ecosystems;
- the responsibility of all members of the company for environmental protection and biodiversity conservation.

The country is a party to a number of international and regional environmental agreements and conventions.

The Constitution of the Republic of Uzbekistan and environmental legislation establish the right of citizens to a safe environment. National legislation provides for a number of other environmental rights and obligations of citizens, which can be realized through individual or public efforts to protect the environment.

2.1.2 Legal framework in the field of environmental protection

The following key laws form the national environmental legal framework of Uzbekistan.

Table 2 Normative-legal acts, normative-technical and instructional-methodological documents of the RUz, the requirements of which are taken into account during the implementation of the ESIA project

Regulatory level	Name of documents
Basic Law of the RUz	Constitution of the Republic of Uzbekistan, 1992
Normative-legal acts in the field of protection	Law of the RUz “On sanitary and epidemiological welfare of the population”, 2015
	Law of the RUz “On nature protection”, 1992
	Law of the RUz “On water and water use”, 1993
	Law of the RUz “On the protection of atmospheric air”, 1996
	Law of the RUz “On the protection and use of wildlife”, 1997
	Law of the RUz “On the protection and use of flora”, 1997
	Law of the RUz “On protected natural territories”, 2004
	Law of the RUz “On subsoil”, 1994
	Law of the RUz “On the protection of groundwater”, 1993
	Law of the RUz “On state land cadastre”, 1998
	Law of the RUz “On waste”, 2002
	Law of the RUz “On environmental expertise”, 2000
	Law of the RUz “On environmental control”, 2013

Level of regulation	Name of documents
	Decree of the President of the Republic of Uzbekistan “On approval of the concept of environmental protection of the Republic of Uzbekistan until 2030” No. DP-5863 dated on 30/10/2019
	Resolution of the President of the Republic of Uzbekistan “On approval of the Strategy for the transition of the Republic of Uzbekistan to a “green” economy for the period 2019-2030” No. RP-4477 dated on 04/10/2019
	Decree of the President of the Republic of Uzbekistan “On measures to radically improve the payment system for the collection and removal of solid household waste” No. DP-5580 dated on 22/11/2018
	Resolution of the President of the Republic of Uzbekistan “On approval of the strategy for the management of municipal solid waste in the Republic of Uzbekistan for the period 2019-2028” No. RP-4291 dated on 17/04/2019
	Resolution of the Cabinet of Ministers “On further improvement of the environmental impact assessment mechanism” No. 541 dated on 07/09/2020
	Resolution of the Cabinet of Ministers of the Republic of Uzbekistan “On approval of the Regulations on the procedure for developing and approving draft environmental standards” No. 14 dated on 21/01/2014
	Resolution of the Cabinet of Ministers of the Republic of Uzbekistan “On approval of regulations in the field of waste management” No. 95 dated on 06/02/2019
	Resolution of the Cabinet of Ministers “On approval of the Regulation on the procedure for exercising control in the field of waste management” No. 295 dated on 27/10/2014
	Resolution of the Cabinet of Ministers of the Republic of Uzbekistan “On approval of the Regulations on the procedure for establishing water protection zones and sanitary protection zones of water bodies on the territory of the Republic of Uzbekistan” No. 981 dated on 11/12/2019
	Rules for the reception of industrial wastewater and the procedure for calculating compensation payments for excess discharges of pollutants into urban sewer networks of cities and other settlements of the Republic of Uzbekistan (Appendix 1 to RCM No. 11 of 2010)
	Resolution of the Cabinet of Ministers “On improving the environmental monitoring system in the Republic of Uzbekistan” No. 737 dated on 05/09/2019
	SanR&N No. 0350-17 “Sanitary norms and rules for the protection of atmospheric air in populated areas of the Republic of Uzbekistan”
	SanR&N No. 0293-11 “Hygienic standards”. List of maximum permissible concentrations (MPC) of pollutants in the atmospheric air of populated areas on the territory of the Republic of Uzbekistan
	SanR&N No. 0267-09 “Sanitary norms and rules for ensuring permissible noise in the premises of residential, public buildings and on the territory of residential development”
	SanR&N No. 0088-99 Sanitary requirements for the development and approval of projects for maximum permissible discharges (MPD) of substances entering water bodies with wastewater
	SanR&N No. 0289-10 Sanitary rules and hygienic requirements for the organization of construction and construction work
	SanR&N No. 0183-05 Hygienic requirements for the quality of soil in populated areas in specific natural and climatic conditions of Uzbekistan
	SanR&N No. 0191-05 Maximum permissible concentrations (MPC) and approximate permissible concentration (APC) of exogenous harmful substances in soil

Level of regulation	Name of documents
	SanR&N No. 0212-06. Sanitary rules and norms for hygienic assessment of the degree of soil pollution of different types of land use in the specific conditions of Uzbekistan
	SanR&N No. 0318-15 Hygienic and anti-epidemic requirements for the protection of water reservoirs on the territory of the Republic of Uzbekistan
	SanR&N No. 0297-11 Sanitary rules and standards for cleaning populated areas from solid household waste in the conditions of the Republic of Uzbekistan
	SanR&N No. 0127-02 Hygienic classifier of toxic industrial waste in the conditions of the Republic of Uzbekistan
Normative-technical and instructional-methodological documents in the field of environmental protection and habitat	O'z DSt 951:2011 Sources of centralized domestic and drinking water supply. Hygienic, technical requirements and selection rules
	GOST-23941-2002 "Machine noise. Methods for determining noise characteristics"
	GOST 23337-78 "Noise. Methods for measuring noise in the residential area and in the premises of residential and public buildings"
	Instructions for conducting an inventory of pollution sources and standardizing emissions of pollutants into the atmosphere for enterprises of the Republic of Uzbekistan. Approved by the Order of the Chairman of the State Committee for Nature Protection No. 105 dated on 15/12/2005
	GOST 31295.2-2005 "Attenuation of sound during propagation on the ground"
	KMK 2.01.08-96 Protection from noise
	KMK 2.04.01-98 Internal water supply and sewerage of buildings
	KMK 2.04.03-97 Sewerage. Outdoor networks and facilities
	Temporary Recommendations on Control of Groundwater Protection in the Republic of Uzbekistan. State committee for natural resources and hydrogeology of the Republic of Uzbekistan, Tashkent, 1991
	Handbook of an environmental expert. Publication of the State Committee of the Republic of Uzbekistan for nature protection and the State environmental expertise. Tashkent, 2009

Constitution of the RUz, articles 50, 54, 55, 93, 100. Article 55 of the Constitution of the Republic of Uzbekistan determines that the Earth, its subsoil, water, flora and fauna and other natural resources are national property and are subject to rational use and protection by the state.

The Law "On sanitary and epidemiological welfare of the population" dated on August 26, 2015, establishes the main directions of state policy in the field of sanitary and epidemiological welfare of the population, defines the rights and obligations of legal entities and individuals in the field of sanitary and epidemiological welfare of the population, as well as requirements for ensuring sanitary and epidemiological welfare of the population.

The Law "On Nature Protection" dated on December 9, 1992 (as amended on 07/02/2024) establishes the legal, economic and institutional framework for environmental protection, ensures sustainable development and certain principles, including the State Environmental Expertise (SEE). Article 12 of the Law "On Nature Protection" determines the need for rational use of natural resources and compliance with environmental requirements".

The Law "On water and water use" of May 6, 1993 (as amended on 18/01/2024) provides for the rational use of water resources, protection of water resources, prevention and mitigation of negative impacts and compliance with national legislation.

The Law "On the Protection of Atmospheric Air" dated on 27/12/1996 (as amended on 07/02/2024) determines the issues of preserving the natural state of atmospheric air; legal regulation of the activities of state bodies, enterprises, institutions, organizations, public associations and citizens in the field of atmospheric air protection.

The Law "On the Protection and Use of the Plant World" dated on 26/12/1997 (as amended on 01/02/2024) regulates relations in the field of protection and use of plants

growing in natural conditions, as well as wild plants for the purpose of their restoration and genetic conservation.

The Law “On the Protection and Use of Wildlife” dated on 26/12/1997 (as amended on 19/09/2016) regulates relations in the field of protection and use of wild animals living in a state of natural freedom on land, in water, atmosphere and soil, permanently or temporarily inhabiting the territory of the Republic of Uzbekistan.

The Law “On Protected Natural Areas” dated on 03/12/2004 (as amended on 30/06/2022) regulates the preservation of typical, unique, valuable natural objects and complexes, the genetic fund of plants and animals, the prevention of the negative impact of human activities on nature, the study of natural processes, monitoring of the natural environment, and the improvement of environmental education and training.

The Law “On Subsoil” dated on 23/09/1994 (as amended on 13/12/2002) is aimed at ensuring sustainable and integrated use of subsoil to meet the needs for minerals, protection of subsoil, the environment, safety of subsoil use and protection of subsoil users, protection of the interests of citizens, society and the state. Regulates pollution of groundwater and soil.

The Law “On the State Land Cadastre” dated on 28/08/1998 (as amended on 30/06/2022) contains the basic rules and norms for land use and ensures rights to land. The Law establishes the ecological value of land plots and ecosystem services.

The Law “On waste” (2002) (as amended on 29/12/2023) regulates waste management and empowers the State Committee for Environmental Protection with the authority to verify, coordinate, assess the state of the environment and establish certain parameters of territories for waste disposal.

The Law “On Ecological Expertise” (2001) (as amended on 29/04/2021) provides for the mandatory examination of the impact on the environment and human health, and also serves as a legal basis for the examination.

The Law “On Environmental Control” (2013) (as amended on 07/02/2024) regulates relations in the field of environmental protection. The main tasks of environmental control are the prevention, detection and elimination of violations of legislation in the field of environmental protection; monitoring of the environmental situation and factors that can lead to environmental pollution, irrational use of natural resources, threat to the life and health of citizens.

2.1.3 Environmental Impact Assessment Process

Legal basis

The environmental assessment of strategic documents and planned activities is carried out based on the following legal acts:

The national EIA procedure is regulated by:

- The Law “On Ecological Expertise” dated on 25/05/2000, amended on 29/04/2021;
- The Resolution “On Further Improvement of the Environmental Impact Assessment Mechanism” (SEE), approved by the Cabinet of Ministers No. 541 dated on 07/09/2020

The Resolution defines the legal requirements for EIA in Uzbekistan. According to the Law and the Resolution, the State Ecological Expertise (SEE) – type of environmental review carried out by specialized expert units in order to establish compliance of the planned activity with environmental requirements and definitions of the admissibility of the implementation of the object of environmental review.

The special authorized state body in the field of state environmental assessment is the Ministry of Ecology, Environmental Protection and Climate Change (hereinafter referred to as the Ministry). SEE is carried out by the following specialized expert units of the Ministry:

- "Center for State Environmental Expertise" State Unitary Enterprise of the Ministry, hereinafter referred to as the "SUE Center for State Environmental Expertise";
- "Center for State Ecological Expertise" State Unitary Enterprises of the regions and the Tashkent city;
- "Center for State Ecological Expertise" SUE carries out state ecological expertise of EIA of economic facilities belonging to I and II categories of environmental impact (high and medium risk);
- "Center for State Environmental Expertise" State Unitary Enterprises of the Republic of Karakalpakstan and regions carry out an environmental review of the EIA of economic facilities belonging to III and IV categories of environmental impact (low risk and local impact).

EIA procedure and environmental decision

The purpose of the EIA is to identify, study and describe the direct and indirect impact of the proposed activity on human health and safety, biodiversity, water, air, soil, land, climate and landscape, cultural heritage and material values.

Environmental impact assessment materials contain three stages: PEIS, EIS and CEC.

The three stages of the EIA and their required outputs are summarized as follows:

- Stage I: "Preliminary Environmental Impact Statement ("PEIS") must be carried out at the planning stage of the proposed project prior to disbursement of funds for the development and implementation of the project.

- Stage II: "Environmental Impact Statement" ("EIS") must be prepared within the timeframe specified in the SEE opinion obtained in Stage I in order to carry out the necessary additional studies or analyzes. The EIS must be submitted to the SEE for consideration and a positive opinion obtained before the approval of the PFS and, therefore, before the start of construction.
- Stage III: "Conclusion on Environmental Consequences" ("CEC") is the final stage of the SEE process and must be completed prior to commissioning of the facility. The report details the changes to the project made as a result of the SEE analyze in the first two stages of the EIA process, the comments received during the public consultations, the environmental regulations applicable to the project and the environmental monitoring requirements associated with the project and the main conclusions.

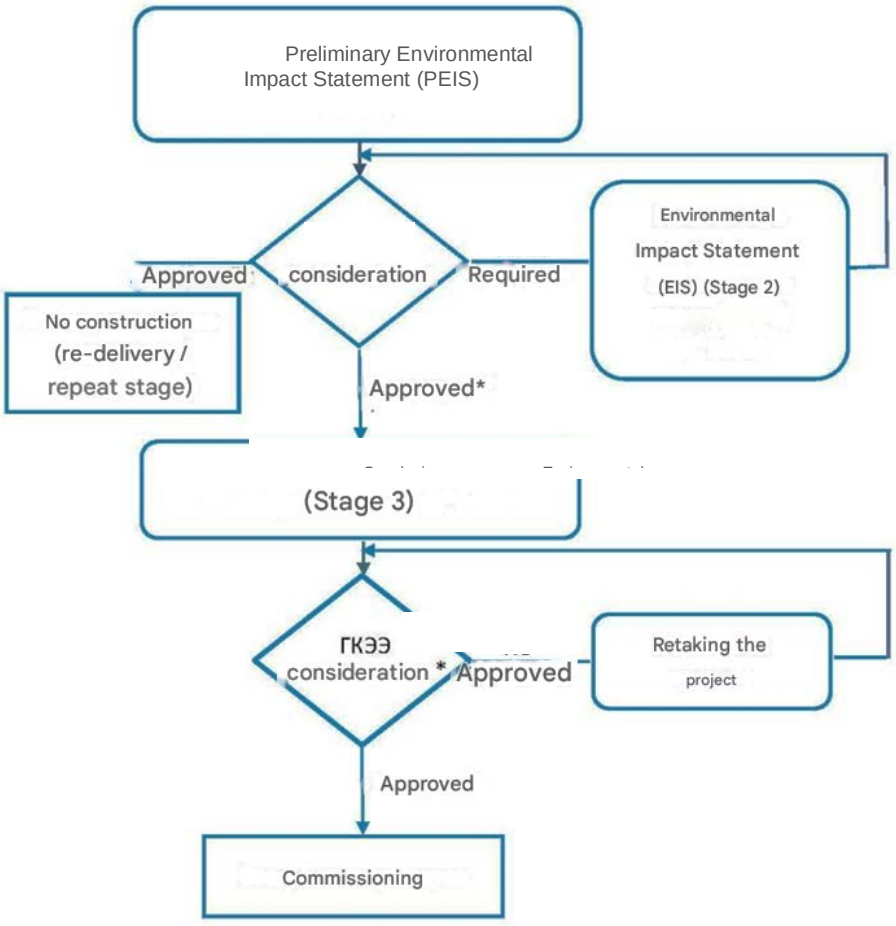
The Resolution "On Further Improvement of the Environmental Impact Assessment Mechanism" approved by the Cabinet of Ministers No. 541 determines the List of activities for which the state environmental review is carried out (Appendix 1 to the RCM), describes in detail the procedure for organizing procedures for conducting SEE (Appendix 2 to the RCM) and the procedure for holding public hearings of environmental impact assessment projects (Appendix 3 to the RCM), Figure 2

All economic activities of the SEE are classified into four categories:

- Category I – "high risk of environmental impact" SEE – 20 calendar days, all stages of EIA are required (by decision of the State Expertise);
- Category II – "medium risk of environmental impact", SEE – 15 calendar days, all

stages of EIA are required (by decision of the State Expertise);

- Category III – “low risk of impact”, SEE 10 – calendar days, all stages of EIA are required (by decision of the State Expertise);
- Category IV - “local impact” - SEE is carried out on the basis of an environmental impact assessment questionnaire, filled out by the customer in electronic form through a personal account on the Ministry’s Internet resource and sent to the appropriate territorial center for state environmental assessment, review period is 5 calendar days.



* Category I – 20 days, Category II – 15 days

** PEIS/EIS approved, permits received, application for site selection received, and the construction phase can begin

Figure 3: The EIA procedure in Uzbekistan

Implementation of projects without a positive conclusion of the State Ecological Expertise entails liability under an article of the Code of the Republic of Uzbekistan on administrative liability. Also, Article 193 of the Criminal Code of the Republic of Uzbekistan provides for liability for violation of norms and requirements of environmental safety.

According to Art. 21, 22 of The Law “On State Environmental Expertise”, Positive conclusion of the SEE is a mandatory document for opening financing by banking and other credit organizations and for the implementation by legal entities and individuals of the implementation of the object of state environmental expertise. The period of validity of the conclusion of the State Environmental Expertise for environmental impact assessment materials is 3 years, for draft environmental standards - 5 years.

Based on the materials of the draft EIS of the project, a positive conclusion was

received from the State Environmental Expertise (Conclusion No. 01-1-101228 dated on 05/02/2024).

2.1.4 Labor relations legislation

The following national laws and regulations govern the labor relations and working conditions aspects of the project, including health and safety issues:

Table 3 Legal and regulatory acts in the field of labor relations

Level of regulation	Name of documents
Legal and regulatory acts in the field of labor, health and safety	Labor Code of the Republic of Uzbekistan, 1996
	Law of the RUz "On state pension provision of citizens" No. 938-XII dated on 03/09/1993
	Law of the RUz "On employment of the population" No. 510-XII dated 13/01/1992
	Law "On the protection of the health of citizens", 1996
	Law of the Republic of Uzbekistan "On compulsory state social insurance against industrial accidents and occupational diseases" No. 174 dated on 10/09/2008
	Law of the Republic of Uzbekistan "On Compulsory Civil Liability Insurance of the Employer", 2009
	Law "On labor protection", 2016
	Decree of the President of the RUz "On improving the procedure for determining the amount of wages, pensions and other payments" No. 5723 dated on 21/05/2019
	Resolution of the Government of the RUz "On measures to further strengthen guarantees of labor rights and support for women's entrepreneurship" No. 4235 dated on 07/03/2019
	Resolution of the Ministry of Employment and Labor Relations of the Republic of Uzbekistan "On approval of the List of professions and jobs that adversely affect women's health, and for which it is not recommended to use the labor of women" No. 22-14-2019 k/k, No. 48 dated on 22/07/2019
	Resolution of the Cabinet of Ministers "On measures to improve the activities of the Ministry of Employment and Labor Relations of the Republic of Uzbekistan" No. 1066 dated on 31/12/2018, Appendix No. 5 to the Regulation "On the procedure for creating and organizing labor protection services in organizations"
	Resolution of the Government of the RUz "On measures to create favorable conditions for the implementation of labor activities in the territory of the Republic of Uzbekistan by qualified specialists from foreign countries" No. 4008 dated on 07/11/2018
	Resolution of the Government of the RUz "On additional measures to further improve the system of external labor migration of the Republic of Uzbekistan" No. 3839 dated on 05/07/2018
	Decree of the President of the Republic of Uzbekistan "On additional measures to create favorable conditions for certain categories of pensioners engaged in labor activity" No. 5291 dated on 28/12/2017

In the Constitution of the Republic of Uzbekistan (08/12/1992), in the chapter on economic and social rights of citizens, it is determined that every citizen has the right to:

- work, free choice of work, fair working conditions and protection against unemployment in the manner prescribed by law. Forced labor is prohibited except in the execution of a sentence by a court sentence, or in other cases provided for by law (Chapter IX, Article 37)
- rest – set out in Article 38: "Employees are entitled to paid rest. The duration of working time, paid labor leave are determined by law";
- social security in old age, in the event of disability and loss of the bread-winner as well as in some other cases specified by law (Article 39);
- qualified medical care (Article 40); Women and men have equal rights (Article 46).

Everyone has the right, both individually and jointly with other persons, to apply with applications, proposals and complaints to the competent state bodies, institutions or people's representatives. Applications, proposals and complaints must be considered in the manner and within the time-limits established by law (Chapter VIII, Article 35);

The Labor Code of the Republic of Uzbekistan, put into effect on 01/04/1996, considers labor legislation taking into account the interests of employees, employers and the state, fair and safe working conditions, protection of labor rights and health of employees.

The Code regulates labor relations and other relations directly related and aimed at protecting the rights and freedoms of participants in labor relations, establishing minimum guarantees of rights and freedoms in the sphere of labor.

Article 6 of the Labor Code prohibits discrimination and guarantees all citizens equal rights to work; discrimination in labor relations is prohibited. Any distinction, non-admission, preference or refusal to hire, regardless of nationality, race, gender, language, religion, political opinions, social status, education, property status, leading to a violation of equality of opportunity in the world of work is prohibited.

A person who believes that he has been discriminated against at work may apply to the court for the elimination of discrimination and compensation for the material and moral damage caused to him.

The Law "On State Pension Provision of Citizens", No. 938-XII dated on 03/09/1993 (as amended on 30/10/2021) determines the procedure for the implementation of the constitutional right of citizens of the Republic of Uzbekistan to social security in old age, in case of complete or partial disability, loss of a breadwinner, establishes a unified system of state pensions, the procedure for their appointment, calculation, recalculation and payment.

The Law of the Republic of Uzbekistan "On employment of the population" No. 510-XII dated on 13/01/1992 (as amended on 01/05/1998), defines organizational, legal and socio-economic guarantees for the realization of human rights to get a job in a market economy and equality of various forms of ownership. It is designed to create conditions that ensure employment of the population, taking into account the norms of the Constitution of the Republic of Uzbekistan and international law.

The Law "On the Protection of the Health of Citizens", 1996 (as amended on 31/05/2024) regulates the provision of guarantees of the rights of citizens to health protection by the state, the formation of a healthy lifestyle of citizens, the activities of state bodies, enterprises, institutions, organizations, public associations in the field of protecting the health of citizens.

The Law "On Compulsory State Social Insurance against Industrial Accidents and Occupational Diseases" No. 174 dated on 10/09/2008, regulates relations in the field of compulsory state social insurance against industrial accidents and occupational diseases.

The Law "On Compulsory Insurance of Employer's Civil Liability" No. 210, 2009 (as amended on 22/02/2024) regulates relations in the field of compulsory insurance of employer's civil liability.

2.1.5 Legislation on equal conditions and the prohibition of child and forced labor

The Republic of Uzbekistan has ratified 16 ILO conventions, including 8 fundamental conventions (see section 2.3), which prohibit child and forced labor and any form of labor discrimination. These key labor standards are included in the national labor legislation of Uzbekistan.

These legislative acts take into account the interests of employees, contribute to the effective functioning of the labor market, ensure fair and safe working conditions, protect labor rights and the health of employees, and contribute to increasing labor productivity, quality of work, welfare and social well-being of the population:

- Resolution of the Ministry of Employment and Labor and the Ministry of Health of the Republic of Uzbekistan “On approval of the List of professions dangerous to women’s health that are not recommended for use in the employment of women” No. 22-14-02019k/k No.48 dated on 22/07/2019;
- Resolution of the President of the Republic of Uzbekistan “On measures to create favorable conditions for the implementation of labor activities in the Republic of Uzbekistan of qualified foreign specialists” No. 4008 dated on 07/11/2018;
- Resolution of the Government of the Republic of Uzbekistan “On additional measures to improve the system of external labor migration in the Republic of Uzbekistan” No. 3839 dated on 05/07/2018.

Forced labor and child labor

The Constitution of the Republic of Uzbekistan (Article 37) prohibits forced labor.

Article 7 of the Labor Code states that forced labor, i.e. forced performance of work under threat of any punishment (including as a means of labor discipline) is prohibited.

The right to work is granted to persons aged 16 and over. The law allows the employment of students of secondary general education, secondary special, vocational educational institutions as trainees to perform light work that does not harm their health and moral development, and does not interfere with the educational process, in their free time from study, provided that they reach the age of 15 and with the written consent of one of the parents or one of the persons replacing the parents (Article 77).

Under the Labor Code, persons under the age of 15 can not work.

Young people aged 15 to 18 years have the right to work, based on local legislation, and have the same rights as adult employees, with some benefits based on their age (Article 240 of the Labor Code). Persons under the age of 18 may be employed only after passing a medical examination, and until the age of eighteen they are subject to a mandatory annual medical examination.

Persons under the age of 18 can only be employed in jobs that do not pose a danger to their health, safety and morals, and they are not allowed to lift or move heavy objects (Article 241 of the Labor Code).

Employees aged 15-16 are allowed to work no more than 24 hours per week, and employees aged 16-18 are allowed to work no more than 36 hours per week. Students can only be employed during their free time, their working hours cannot exceed half of the maximum working hours established for the respective age groups, i.e. students aged 15-16 may only work 12 hours per week, and students aged 16-18 may work no more than 17,5 hours per week (Article 242).

Articles 49 and 51 of the Administrative Code of the Republic of Uzbekistan impose fines for violation of the above norms on forced and child labor. The law as amended on 23/08/2019 significantly increases fines for the use of administrative measures to involve employees in forced labor, which was previously practiced in the country, i.e. civil servants, mainly teachers, medical employees and students, were involved.

This law provides for fines ranging from 10 to 30 times the minimum wage for using such practices. According to the ministry, if a similar offense is repeated, the perpetrators face fines ranging from 30 to 100 times the minimum wage.

Criminal Code No. 2012-XII dated on 22/09/1994 (Articles 135, 138, 148) establishes punishment for the use of forced labor.

2.1.6 Legislation on land alienation and restoration of livelihoods

In Uzbekistan, land expropriation is provided for state and public needs in accordance with the Land Code (LC). There is no separate legal document on land acquisition and resettlement in Uzbekistan, but there is a base in the form of a number of resolutions, acts and codes described below.

Regulatory level	**Name of documents**
Normative-legal acts in the the social sphere, on the land alienation	The Civil Code of the Republic of Uzbekistan, 1996
	The Land Code of the Republic of Uzbekistan, 1998
	The Family Code of the Republic of Uzbekistan, 1998
	The Tax Code of the Republic of Uzbekistan, 2007
	The Law of the Republic of Uzbekistan "On Rent", 1991
	Decree of the President of the Republic of Uzbekistan “On measures to ensure equality and transparency in land relations, reliable protection of land rights and turning them into a market asset” No. DP-6243, 2021
	Resolution of the Cabinet of Ministers No. 911 (16/11/2019) as amended dated 01/08/2021 “On the procedure for the seizure of land plots and the provision of compensation to owners of real estate located on the seized land plot”
	Decree of the President of the Republic of Uzbekistan “On measures to ensure equality and transparency in land relations, reliable protection of land rights and turning them into a market asset” No. DP-6243 of 08/06/2021
	Presidential Decree No. 5491 “On additional measures to ensure unconditional security of property rights of citizens and business entities”, 2019
	Decree of the President of the Republic of Uzbekistan No. 5490 “On measures to further improve the system of protection of the rights and legitimate interests of business entities”, 2018
	Presidential Decree No. 5495 “On measures to radically improve the investment climate in the Republic of Uzbekistan”, 2018
	Resolution of the Cabinet of Ministers of the RUz No. 3857 “On measures to improve the efficiency of the preparation and implementation of projects with the participation of international financial institutions and foreign government financial organizations”, 2018

	Resolution of the Cabinet of Ministers of the RUz No. 317 “On introducing changes and additions to some decisions of the government of the Republic of Uzbekistan, aimed at further improving the procedure for preparing cadastral documentation for real estate,” 2016
	Resolution of the Cabinet of Ministers No. 146 (25/05/2011) as amended on the basis of Resolution of the Cabinet of Ministers No. 1024 (20/12/2019) “On measures to improve the procedure for the provision of land plots for urban planning activities and other non-agricultural needs”
	Law of the Republic of Uzbekistan “On the seizure of land for public purposes and compensation procedure” No. LRU-781 dated on 29/06/2022
	Decree of the President of the Republic of Uzbekistan “On additional measures to improve the procedure for leasing agricultural land plots” No. 15 dated on 18/01/2024.

The Constitution of the Republic of Uzbekistan provides as follows: everyone has the right to own property (Article 36). The economy of Uzbekistan, which is developing in the direction of market relations, is based on various forms of ownership.

The state guarantees freedom of economic activity, entrepreneurship and labor, taking into account the priority of consumer rights, equality and legal protection of all forms of property (Article 53); the owner, at his own discretion, has the right to own, use and dispose of his property.

The use of any property must not harm the environment, infringe the rights and legally protected interests of citizens, legal entities and the state (Article 54); land, its mineral resources, water, fauna and flora, and other natural resources constitute national wealth and are rationally used and protected by the state (Article 55).

The Land Code of the RUz, 1998 (as amended on 17/08/2021) provides that withdrawal of a land plot or part of it for state and public needs is carried out with the consent of the land owner or in agreement with the land user and tenant - by decision of the Kengashes of people’s deputies of the regions, Tashkent city, respectively, or by decision of the Cabinet of Ministers of the Republic of Uzbekistan (Article 37, clause 2).

The seizure of land plots for state and public needs is carried out only for the following purposes:

- provision of land for the needs of defense and state security, protected natural areas, creation and functioning of free economic zones;
- fulfillment of obligations arising from international treaties of the Republic of Uzbekistan;
- discovery and development of mineral deposits;
- construction (reconstruction) of roads and railways, airports, airfields, air navigation facilities and aviation technical centers, railway transport facilities, bridges, subways, tunnels, energy system facilities and power lines, communication lines, space facilities, main pipes, engineering and communication networks;
- execution of master plans of settlements in terms of construction of facilities at the

expense of the State Budget of the Republic of Uzbekistan, as well as in other cases expressly provided for by laws and decisions of the President of the Republic of Uzbekistan.

Making decisions on the seizure of land plots for state and public needs is permitted only after an open discussion with the owners of real estate located on the land plots that are planned to be withdrawn, an assessment of the benefits and costs, as well as mandatory coordination with the relevant Centralized Fund for compensation of losses to individuals and legal entities in connection with the seizure of land plots from them for state and public needs.

If the landowner, land user and tenant disagree with the decision of the Kengashes of people's deputies of the regions and Tashkent city, respectively, or the decision of the Cabinet of Ministers of the Republic of Uzbekistan on the seizure of the land plot, this decision can be appealed in the prescribed manner.

Enterprises, institutions and organizations interested in the seizure of land plots for the construction of enterprises, buildings and structures, are required, before the start of design, to first agree with landowners, land users and tenants, as well as, respectively, with the khokim of the district, city, region or the Cabinet of Ministers of the Republic of Uzbekistan, the location of the facility, the approximate size of the site and the conditions for its allotment, taking into account the integrated development of the territory. Financing of project work before the specified preliminary approval is not allowed.

2.1.7 Occupational Health and Safety Legislation

Legislation in the field of occupational health and safety (OHS) includes the Labor Code, the Law on Occupational Health and Safety, decrees of the President of the Republic of Uzbekistan, norms on labor protection and safety, decisions of the executive bodies of state power adopted within their competence in the form of decrees, orders, resolutions, directives, rules, etc.

More than 30 articles of the Labor Code directly relate to labor protection and safety. They include:

- Labor protection requirements (Article 211);
- Compliance with norms, rules and instructions on labor protection (Article 212);
- Conducting briefing and training of employees on labor protection (Article 215);
- Regulation of working hours in hazardous industries for employees performing special jobs and employees under 18 years of age (Articles 116, 117 and 118);
- Conditions for hiring disabled people for various jobs (Article 220);
- Providing employees with milk, therapeutic and preventive nutrition, carbonated salt water, personal protective equipment and hygiene (Article 217);
- Provision of first medical aid to employees, their transportation to medical and preventive institutions (Article 221);
- Accounting and investigation of industrial accidents (Article 222), etc.

The Law "On labor protection", 2016 (as amended on 22/09/2016), establishes a unified procedure for the organization of labor protection, regardless of the methods of production, forms of ownership and is aimed at ensuring the protection of the health and labor of citizens.

The Law is aimed at further improving the labor protection system, strengthening the responsibility of the employer and employees for fulfilling the requirements in this area, defining the powers of state authorities to ensure proper control over labor conditions and

safety, increasing the efficiency of public control in this area, bringing certain provisions of the current legislation in line with the requirements of newly adopted legislative acts in a modern market economy.

The Law introduces new concepts, clearly regulates the issues of attestation of workplaces in terms of working conditions, audit of the labor protection management system, investigation and accounting of accidents at work and occupational diseases. Also, the law establishes specific mechanisms for the participation of the public and trade unions in the implementation of public control in this area, enshrines their rights directly related to HSE.

The Law “On labor protection at hazardous production facilities”, adopted on 05/01/2018, determines the legal, economic and social conditions for ensuring the safe operation of hazardous production facilities and is aimed at preventing accidents and increasing the capacity of enterprises to eliminate their consequences.

The Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No.60 dated on 11/02/2005 introduced rules for compensation by the employer for harm caused to employees due to injury, occupational disease or other health impairment in connection with the performance of work.

In accordance with the Law “On Occupational Health and Safety”, an employee who has become incapacitated in whole or in part due to the fault of management as a result of an industrial accident or occupational disease is entitled to a lump-sum allowance and compensation for health damage paid by the enterprise. The lump-sum allowance is determined by the collective contract (agreement) and may not be less than the annual salary of the victim.

In addition to the basic legislation, national regulatory documents regulating occupational health and safety issues are in force in the republic. These include Sanitary Rules and Norms (SanR&N), State labor protection standards (GOST, SSBT), Construction Norms and Rules (CN&R), standards for the content of harmful substances (maximum allowable concentrations and levels), normative methodological documents on certain issues that establish specific requirements for labor protection at hazardous facilities, in the manufacture or use of various products, etc.

In addition to state regulations, departmental and interdepartmental norms, requirements and rules of labor protection are applied in various industries.

According to the Regulation “On the procedure for the creation and organization of labor protection services in organizations”, Appendix No. 5 to the Resolution of the Cabinet of Ministers “On measures to improve the activities of the Ministry of Employment and Labor Relations of the Republic of Uzbekistan” No. 1066 dated on 31/12/2018, each organization must have labor protection personnel who are responsible for:

- organization of work to ensure compliance by employees with labor protection requirements;
- control over compliance by employees with laws and other regulatory legal acts on labor protection, regulatory documents in the field of technical regulation of labor protection, a collective agreement, agreements on labor protection and other local regulatory legal acts of the organization;
- organization of preventive work to prevent industrial injuries, occupational diseases and diseases caused by occupational factors, as well as work to improve working conditions;
- informing and advising the employer and employees of the organization on labor protection issues, introducing best practices and scientific developments on labor protection issues, disseminating knowledge about labor protection;

- implementation of measures to organize introductory briefing, training, retraining and advanced training of employees of the organization on labor protection issues.

If the organization employs less than 50 people, then it must have at least one occupational safety specialist or one of the managers who combine the work of an occupational safety specialist, and for organizations with more than 50 employees, it is necessary to create an internal labor protection service.

2.1.8 Occupational Health, Safety and Protection Legislation

The Law "On the protection of the health of citizens" dated on 29/08/1996 (as amended on 31/05/2024) regulates the health, safety and health of the population. The main objectives of the Law are ensuring the rights of citizens to health protection by the state; promotion of healthy lifestyles; legal regulation of the activities of state bodies, enterprises, institutions, organizations and public associations in the field of healthcare.

Air quality and noise levels in residential areas are set by the following standards:

- SanR&N No. 0293-11 "Hygienic standards". List of maximum permissible concentrations (MPC) of pollutants in the atmospheric air of populated areas on the territory of the Republic of Uzbekistan.
- SanR&N No. 0267-09 Hygienic standards for ensuring permissible noise in the premises of residential and public buildings and on the territory of residential constructions.
- Pre-construction and construction work is regulated by SanR&N No. 0289-10 for the organization of construction production and construction work.

2.1.9 Legislation on cultural heritage

The Law of the RUz "On the protection and use of cultural heritage objects" No. 269-II (30/08/2001), with the latest amendments dated on 30/06/2022, contributes to the protection of the cultural heritage of the RUz, including tangible and intangible cultural values, by regulating legal procedures in this area.

Other main laws and regulations related to cultural heritage are:

- Law of the RUz "On the protection and use of objects of archaeological heritage" No. LRU-229 dated on 13/10/2009;
- Resolution of the Cabinet of Ministers of the RUz "On approval of normative-regulatory acts for the protection of intangible cultural heritage" No. 47 dated on 23/02/2011 (amendments are currently being made to the act);
- Resolution of the Cabinet of Ministers of the RUz "On approval of the Regulations on the procedure for the use of objects of material cultural heritage" No. 881 dated on 18/10/2019;
- Decree of the President of the RUz "On measures to further improve the public administration system in the areas of tourism, sports and cultural heritage" No. DP-6199 dated on 06/04/2020;
- Resolution of the President of the RUz "On measures to organize the activities of the Agency for cultural heritage under the Ministry of Tourism and Sports of the RUz, as well as innovative development of the sphere" No. RP-5150 dated on 19/06/2021;

The Cultural Heritage Agency coordinates the implementation of urban planning and other economic activities in territories classified as specially protected historical and cultural sites and objects of world cultural heritage, with the preservation of their historical and cultural environment, natural landscape and identity, as well as on land plots subject to economic development (if an object is located on them or a new object is identified).

According to Article 10, Law of the RUz No. 269-II “On the Protection and Use of Cultural Heritage Objects” (30/08/2001), an individual or legal entity interested in obtaining permission to carry out excavation, land management, construction, reclamation, economic and other work in the locations of objects of tangible cultural heritage and territories associated with them, work on the preservation of objects of tangible cultural heritage must conduct an archaeological study of the territory, which includes: a) historical, bibliographic and archival research; b) field and desk research.

Administrative regulations for the provision of public services for the development of architectural and planning assignments (Appendix No. 3 to the Resolution of the Cabinet of Ministers No. 370 dated on 18/05/2018) includes requirements and conditions for the protection of historical and cultural monuments, the environment, legal rights and interests of third parties when placing an object on a specific land plot, on the basis of which design documentation for the construction (reconstruction) of the object is developed.

This Regulation applies to the development and issuance of architectural and planning assignments for the design of all types of construction and reconstruction of buildings and structures, planar and linear objects, landscaping, repurposing of buildings and structures, accompanied by reconstruction, through the transfer (establishment) of the main provisions and requirements included in urban planning documentation on planning the development of territories and parts of territories (regions, settlements) of the RUz.

Review and approval of design and estimate documentation for compliance with the architectural and planning assignment is carried out by territorial architectural and urban planning councils under the Ministry of Construction of the Republic of Karakalpakstan, the main construction departments of the regions and Tashkent city — for the construction of facilities in historical zones, including in zones of protection of cultural monuments, as well as government facilities.

These bodies coordinate the design and estimate documentation within two working days after receiving positive conclusions from all other authorized bodies.

2.2 International treaties and agreements

Table 4 presents international agreements and conventions to which the Republic of Uzbekistan is a party and the requirements of which are applicable to the project.

Table 4: List of international agreements and conventions ratified by the Republic of Uzbekistan and the requirements of which are potentially applicable to the project (as of June 2024)

International conventions and agreements	Ratification by the Republic of Uzbekistan	Entry into force in the Republic of Uzbekistan	Main objectives
Environmental protection agreements and conventions			
Paris Convention for the Protection of the World Cultural and Natural Heritage (1972)	December 22, 1995	June 15, 1996	Establishing an obligation to ensure the identification, protection, conservation, promotion and transmission to future generations of cultural and natural heritage
Bonn Convention on the Conservation of Migratory Species (1979)	May 1, 1998 (affiliation)	September 1, 1998	Global Platform for the Conservation and Sustainable Use of Migratory Animals and their Habitats
United Nations Framework Convention on Climate Change (1992)	June 20, 1993 (adoption)	March 21, 1994	Stabilization and reduction of greenhouse gas emissions
United Nations Convention on Biological Diversity (1992)	May 6, 1995 (affiliation)	October 17, 1995	Conservation of biodiversity, sustainable use of its components and equitable distribution of benefits
Agreement on the Conservation of Afro-Eurasian Migratory Waterbirds, 1995	September 1998	April 01, 2004	Conservation of migratory waterbirds, especially endangered species, as well as species with an unfavourable conservation status
Kyoto Protocol, 1997	August 20, 1999	February 16, 2005	Setting binding emission reduction targets
Paris Agreement on Climate Change (2015)	December 2015	April 2017	The Agreement, in the context of the United Nations Framework Convention on Climate Change, regulates further measures to reduce atmospheric carbon dioxide since 2020.
Agreements and conventions in the field of labor protection and social responsibility of the International Labor Organization (ILO)			
Forced Labour Convention No.29 (1930)	August 30, 1997	July 13, 1992	Abolition of the use of forced or compulsory labor in all its forms
Protocol of 2014 to the Forced Labor Convention (1930)	June 25, 2019	September 16, 2020	The main purpose of the 2014 Protocol is to put an end to forced labour, to take effective measures to prevent and end its use, to provide protection and access to adequate and effective remedies for its victims.

International conventions and agreements	Ratification by the Republic of Uzbekistan	Entry into force in the Republic of Uzbekistan	Main objectives
Freedom of Association and Protection of the Right to Organise Convention No. 87 (1948)	October 25, 2016	December 12, 2017	The right to freedom of association means not only the freedom to join existing associations, but also to create new ones. Trade unions have the right to develop without interference from outside the charter of the organization
Right to Organise and Collective Bargaining Convention No. 98 (1949)	August 30, 1997	July 13, 1992	Protection of employees' rights to ensure that the freedom of association in the workplace is not impaired. Such protection applies in particular to acts whose purpose is: subject the hiring or retention of a employee to the condition that he does not join or leave a trade union
Equal Remuneration Convention No. 100 (1951)	August 30, 1997	July 13, 1992	"Equal remuneration for men and women for work of equal value" refers to rates of remuneration determined without discrimination based on gender
Abolition of Forced Labour Convention No. 105 (1957)	August 30, 1997	December 15, 1997	Taking all necessary measures to ensure that compulsory or forced labor does not lead to conditions analogous to slavery
Discrimination (Employment and Occupation) Convention No. 111 (1958)	August 30, 1997	July 13, 1992	Any distinction, exclusion or preference made on the basis of race, colour, sex, religion, political opinion, national extraction or social origin, which has the effect of nullifying or impairing equality of opportunity or treatment in employment or occupation
Convention No 138 "On Minimum Age for Admission to Employment" (1973)	April 4, 2008	March 6, 2010	The minimum age for admission to any type of employment or other work which, by its nature or the circumstances in which it is carried out, is likely to be harmful to the health, safety or morals of a young person shall not be less than eighteen years
Convention No 182 "On Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labor" (1999)	April 8, 2008	June 24, 2009	Eliminate and prevent the worst forms of child labor
Convention No 47 "On concerning the Reduction of Hours of Work to Forty a Week" (1935)	May 6, 1995	July 13, 1992	The principle of a forty-hour week applied in such a manner that the standard of living is not reduced in consequence

International conventions and agreements	Ratification by the Republic of Uzbekistan	Entry into force in the Republic of Uzbekistan	Main objectives
Holidays with Pay Convention No. 52 (1936)	May 6, 1995	July 13, 1992	Every person to whom this Convention applies shall be entitled after one year of continuous service to an annual holiday with pay
Maternity Protection Convention No. 103 (revised in 1952)	May 6, 1995	September 25, 1996	The purpose of this Convention is to protect the rights of women and children
Employment Policy Convention No. 122 (1964)	May 6, 1995	July 13, 1992	Stimulating economic growth and development, raising living standards, meeting labor needs and eliminating unemployment
Employees' Representatives Convention No. 135 (1971)	August 30, 1997	December 15, 1997	Acceptance of proposals on the protection of the rights of representatives of employees at the enterprise and the opportunities provided to them
Collective Bargaining Convention No. 154 (1981)	August 30, 1997	December 15, 1997	Facilitating negotiations which take place between an employer, a group of employers or one or more employers' organizations, on the one hand, and one or more employees' organizations
Convention No 144 "On Tripartite Consultation for the Promotion of International Labour Standards" (1976)	March 4, 2019	August 13, 2020	Ensuring effective consultations between representatives of the government, employers and employees on the activities of the International Labor Organization

Table 5 presents interstate agreements of the countries of the Central Asian region in the field of environmental protection and natural resource management, to which Uzbekistan is a party and the provisions of which are applicable to the project.

Table 5 List of international agreements and conventions ratified by the Republic of Uzbekistan and the requirements of which are applicable to the project (as of June 2024)

Name of the agreement	Uzbekistan	Tajikistan	Kazakhstan	Kyrgyzstan	Turkmenistan
Agreement between the Governments of the CIS member states on interaction in the field of ecology and environmental protection	+	+	+	+	+
Agreement on cooperation in the field of joint management of the use and protection of water resources of interstate sources	+	+	+	+	+
Agreement on cooperation in the field of hydrometeorology	+	+	+	+	–

2.3 Lender's requirements

Due to financing by an ECA and an EPFI, the 'Applicable Standards' for evaluation include:

- Uzbek laws that pertain to environmental and social issues;
- OECD Common Approaches;
- Equator Principles IV (July 2020);
- IFC Performance Standards (January 2012);
- World Bank Group General Environmental, Health and Safety (EHS) Guidelines;
- World Bank Group EHS Guidelines for Thermal Power Plants (2007);

The UN Guiding Principles on Business and Human Rights, and international environmental law including relevant conventions and treaties applicable to the Project;

2.3.1 OECD Common Approaches

The Recommendation on Common Approaches for Officially Supported Export Credits and Environmental and Social Due Diligence was adopted by the OECD Council on 28 June 2012 on the proposal of the Working Party on Export Credits and Credit Guarantees (ECG). It was revised in 2016 and in 2024.

The Recommendation calls on Adherents, before taking decisions on providing officially supported export credits, to apply a series of measures (the "Common Approaches") for addressing environmental and social issues relating to the exports of capital goods and/or services and the locations to which these are destined.

The Recommendation applies to all types of officially supported export credits for exports of capital goods and/or services, except exports of military equipment or agricultural commodities, with a repayment term of two years or more.

The Recommendation sets out Common Approaches for undertaking environmental and social due diligence to identify, consider and address the potential environmental and social impacts and risks relating to applications for officially supported export credits as an integral part of Adherents' decision-making and risk management systems. This includes the following steps by Adherents:

- **Screening,** with the aim of identifying which applications for officially supported export credits should be classified and, where appropriate, subsequently reviewed;
- **Classification** to identify the potential positive and negative environmental and social impacts, using three categories for the classification of applications (Category A, B and C projects. An illustrative list of Category A projects is set out in Annex I of the Recommendation) ;
- **Environmental and Social Review,** undertaken in accordance with the international standards applied to the project as set out in the Recommendation;
- **Evaluation, Decision and Monitoring,** resulting from the screening and review of projects; Exchange and Disclosure of Information to share experiences and exchange information with other Adherents, financial institutions and the wider public; and
- **Reporting and Monitoring of the Recommendation** to build a body of experience on the application of the Recommendation through regular reporting and exchanges of information with the aim of improving common practices, developing guidance, and promoting a level playing field.

In line with clause 21 of the recommendation, 'When undertaking a review, Adherents

should benchmark projects against the relevant aspects of all eight IFC Performance Standards. Where projects involve sovereign obligors, Adherents may instead benchmark projects against the relevant aspects of all ten World Bank Environmental and Social Standards.' The recommendation further outlines the need for compliance with the applicable WBG/IFC EHS Guidelines.

2.3.2 Equator Principles 4 (2020)

The Equator Principles (EP) is a risk assessment framework used by financial institutions to determine, assess and manage the environmental and social risk in Projects financing. Currently, over a hundred thirty-seven major financial institutions in more than thirty-five countries have officially adopted the EPs.

The EP apply globally to all industry sectors and to five financial products:

1. Project Finance Advisory Services,
2. Project Finance,
3. Project-Related Corporate Loans,
4. Bridge Loans, and
5. Project-Related Refinance, and Project-Related Acquisition Finance.

The Equator Principles were updated in 2006 (EPII), 2013 (EPIII) and a further update EP IV became effective from October 1st, 2020.

Equator Principles Financial Institutions (EPFIs) implement ten (10) EP through their internal environmental and social risk management policies, procedures and standards in order to comply with the EP. The list of principles is listed below:

- Principle 1: Review and Categorisation;
- Principle 2: Environmental and Social Assessment;
- Principle 3: Applicable Environmental and Social Standards;
- Principle 4: Environmental and Social Management System and Equator Principles Action Plan;
- Principle 5: Stakeholder Engagement;
- Principle 6: Grievance Mechanism;
- Principle 7: Independent Review;
- Principle 8: Covenants;
- Principle 9: Independent Monitoring and Reporting; and
- Principle 10: Reporting and Transparency.

EP IV also establishes the minimum E&S standards to be adopted by EPFIs as those from IFC Performance Standards on Environmental and Social Sustainability (Performance Standards), the World Bank Group Environmental, Health and Safety Guidelines (EHS Guidelines) and/or the relevant host country laws, regulations and permits that pertain to environmental and social issues.

2.3.3 IFC Performance Standards

The IFC Performance Standards are a key component of the IFC's Sustainability Framework and directed towards clients (i.e. party responsible for implementing and operating the project that is being financed), providing guidance on how to identify risks and

impacts. The IFC Performance Standards are designed to help avoid, mitigate, and manage risks and impacts throughout the life of a project as a way of doing business in a sustainable way, including stakeholder engagement and disclosure obligations of the client in relation to project-level activities.

The IFC Performance Standards (PSs), 2012 are listed below:

- PS 1: Assessment and Management of Environmental and Social Risks and Impacts
- PS 2: Labour and Working Conditions - Including ILO Conventions
- PS 3: Resource Efficiency and Pollution Prevention
- PS 4: Community Health, Safety, and Security
- PS 5: Land Acquisition and Involuntary Resettlement
- PS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
- PS 7: Indigenous Peoples
- PS 8: Cultural Heritage

The Indigenous People's requirements are considered inapplicable to this Project as none of the ethnic groups present in the area (Uzbek, Russians, Tatars, Kyrgyz, Tajiks) meet the key criteria/characteristic that define indigenous groups defined by IFC PS 7.

2.3.4 WBG/IFC Environmental, Health and Safety Guidelines

In accordance with the OECD Common Approaches, IFC Performance Standards and EP IV, lenders require project compliance with both national regulations/standards and the applicable World Bank Group EHS Guidelines relevant to the Project. These include:

- General WBG/IFC EHS Guidelines (2007);
- WBG/IFC EHS Guidelines for Thermal Power Plants (2008); and
- WBG/IFC EHS Guidelines for 'Electric Power Transmission and Distribution' (2007).

In terms of specific guidelines to control environmental externalities (e.g. wastewater quality etc.), EHS guidelines have been set out by IFC and the World Bank Group to provide general guidelines for its members when involved in a project or when providing financial support to a project. These guidelines contain general and industry-specific examples of Good International Industry Practice (GIIP). In summary, it should be noted that the following IFC EHS Guidelines are relevant to this project:

<u>General EHS Guidelines, Environmental:</u>

- Air Emissions and Ambient Air Quality;
- Energy Conservation;
- Wastewater and Ambient Water Quality;
- Water Conservation;
- Hazardous Materials Management;
- Waste Management;
- Noise; and,
- Contaminated Land.
- General EHS Guidelines, Occupational Health & Safety;
- General Facility Design and Operation;
- Communication and Training;
- Physical Hazards;

- Chemical Hazards;
- Radiological Hazards;
- Personal Protective Equipment (PPE); - Special Hazard Environment; and, - Monitoring.
- Community Health & Safety:
- Water Quality and Availability;
- Structural Safety of Project Infrastructure;
- Life and Fire Safety (L&FS);
- Traffic Safety;
- Transport of Hazardous Materials;
- Disease prevention; and, - Emergency Preparedness and Response
- Industry Sector Guidelines, Power:
- Thermal Power Plant (2008); and
- Electric Power Transmission and Distribution (2007).

2.3.5 Categorization of proposed activities

Depending on the specifics of the project and the recipients, the scale and nature of potential impacts, the planned activity can be classified into one of the four categories provided for by the requirements of the IFC:

- A – activities with potentially significant environmental or social risks and/or adverse impacts – diverse, irreversible and/or unprecedented.

- B – types of activities with potentially limited environmental or social risks and/or adverse impacts – few, mainly affecting only the territory of the immediate implementation of the project and mostly reversible, the level of which can be effectively reduced with the help of mitigation measures.

- C – activities with minimal environmental or social risks and/or adverse impacts.

- FI – activities related to investments in financial institutions or using mechanisms involving financial intermediaries.

Table 6: Project Categorisation Based on National Regulations and Lenders' Requirements

REQUIREMENT		PROJECT CATEGORISATION
National Regulation	The national EIA procedure is regulated by the Law on Environmental Expertise and the Regulation on State Environmental Expertise (SEE) approved by Cabinet of Ministry Decree No.541 dated 7th September 2020. The regulation defines the legal requirements for EIA in Uzbekistan. Under these regulations, Projects are classified into four categories: ***Category I "****high risk of environmental impact"*	As per the ESIA, to comply with the statutory requirements of the Republic of Uzbekistan, a separate national EIA (OVOS) report was developed for the Project. The Project falls under **Category-I** according to the Law and the Resolution of the State Ecological Expertise (SEE). The draft Environmental Impact Statement (EIS) for the project received a positive conclusion from the State Environmental Expertise (Conclusion No. 01-1-101228, Date of Issue: 05/02/2024, Valid Until: 05/02/2027). Local regulator has approved Preliminary EIA Report (Stage I) and provided requirements to be included to the Stage III of National EIA Reporting. This means that Stage II has been excluded for this Project.

	Category II "*medium risk of environmental impact"* ***Category III "***low risk of impact" ***Category IV "****low impact"*	
OECD Common Approaches	Classification to identify the potential positive and negative environmental and social impacts, using three categories for the classification of applications (Category A, B and C projects. An illustrative list of Category A projects is set out in Annex I of the Recommendation);	Based on the type of the Project and identified impacts In line with Annex I 'Illustrative List of Category A Projects' of the recommendation, '*Thermal power stations and other combustion installations (including cogeneration) with a heat output of not less than 300 megawatts (equivalent to a gross electrical output of 140 MWe for steam and single cycle gas turbines power stations) and nuclear power stations and other nuclear reactors, including the dismantling or decommissioning of such power stations or reactors (except research installations for the production and conversion of fissionable and fertile materials, whose maximum power does not exceed 1 kilowatt continuous thermal load)'* are typically considered as **Category A**.
Equator Principes	When a Project is proposed for financing, the EPFI will, as part of its internal environmental and social review and due diligence, categorise the Project based on the magnitude of potential environmental and social risks and impacts, including those related to Human Rights, climate change, and biodiversity. Such categorisation is based on the International Finance Corporation's (IFC) environmental and social categorisation process. The categories are:	Based on the type of the Project and identified impacts that are manageable with the implementation of the required mitigation measures and management plans, the Project is likely to be classified under **Category A**.

2.4 Requirements of the Ministry of Ecology, Environmental Protection and Climate Change of the Republic of Uzbekistan

Based on the materials of the draft EIS for the project in 2024, a positive conclusion was received from the State Environmental Expertise. Conclusion No. 01-1-101228 dated on 05/02/2024 contains the following environmental conditions for the implementation of the planned activities.

1. Based on the requirements of Appendix No.2 of the RCM RUz No. 541 dated on 11/09/2020 (Chapter 3, clause 23), after the implementation of the project under consideration, submit it for State Environmental Expertise of CEC, developed in accordance with the requirements of the RCM RUz No. 541.

2. Develop and present methods for collecting, storing and recycling waste, conclude and submit to the CEC agreements for the removal of waste generated at the enterprise;

3. Provide for the introduction of an automated control system at the priority sources of emissions of the enterprise (requirements of the Concept of the Republic of Uzbekistan on environmental protection until 2030 No. DP-5863 dated on 30/10/2019), as well as Resolution of the Cabinet of Ministers of the RUz No. 737 dated on 05/09/2019;

4. Develop and approve by the Ministry of Ecology, Environmental Protection and Climate Change of the RUz measures to create a “green belt” at the designed enterprise and landscaping of the territory of the designed enterprise;

5. Prevent the harmful effects of waste on the life and health of citizens, the environment, reduce waste generation in accordance with the requirements of Article 15 of the Law of the Republic of Uzbekistan “On Waste” ensure the collection, proper storage and prevention of destruction and damage to waste that has resource value and is subject to disposal; do not allow storage, processing, disposal and disposal of waste in unauthorized places or facilities; exercise control over the sanitary and environmental condition of its own waste disposal facilities. According to the PCM of the Republic of Uzbekistan No. 787 dated on 02/10/2018. “On measures to further improve the efficiency of work in the field of household waste management” household waste collected at the facility should be sorted and handed over to recycling points;

3 ASSESSMENT METHODOLOGY

3.1 Justification of the methodology

Environmental and social impacts – any changes, potential or actual, in the physical, natural or cultural environment, as well as impacts on the local population and personnel caused by the planned activity [1].

In accordance with the requirements of the ESIA agreement, the project provides for the use of a methodology based on the provisions of [1, 2] and other IFC recommendations applicable to ESIA.

The ESIA procedure includes:

- determination of the composition and scope of research;
- stakeholder identification;
- disclosure of information and consultations,
- assessment of alternatives to planned activities, consideration of realistic options;
- identification and assessment of the significance of potential impacts;
- development of measures to prevent and/or minimize, compensate for impacts;
- substantiation of management and monitoring decisions;
- assessment of cumulative and residual impacts.

The ESIA provides for interaction with stakeholders, including the participation of organizations related to the planned activities.

The materials specified in Section 1.3 were used as initial data for determining the composition and scope of work.

Later in this section, methodological approaches to certain types of work as part of the ESIA are considered in more detail.

3.2 Determining the scope of the assessment

Determining the composition and scope of ESIA work is one of the main tasks of the preliminary assessment[1]. For this purpose, the following work was performed at the scoping stage:

- applicable national and other requirements for ESIA are identified. (Requirements were clarified at the main stage of research and are presented in Section 2 of this report);
- analysis of documentation on the proposed activity, including the search for and justification of the use of information on analogue objects;
- reconnaissance survey of the site and the area of the proposed activity;
- collection, generalization and evaluation of available information on natural, man-made and socio-economic conditions of the area of planned activity;
- identification of sensitive (vulnerable) impact recipients;
- identification of stakeholders, including the initiation of interaction with their representatives;
- preliminary determination of the impacts of the proposed activity. As a result of the

[1] In the practice of research performed in accordance with the IFC requirements, – Scoping

performance of these works:

- collected the necessary data that were not available at the beginning of the work on this stage;
- the zone of influence of the planned activity was preliminarily determined;
- the composition and content of the ESIA materials were determined;
- draft plan for interaction with stakeholders was developed.

Gaps in the source data were eliminated by using alternative sources of information where possible (for example, publicly available data, data from specialized organizations, data from an analogue facility were used).

As a result of further work on the study of baseline studies and at the beginning of the main stage of the ESIA, a volume of initial data was formed that is necessary and sufficient to assess the impacts of the proposed activity.

3.3 Baseline Analysis

Assessment of the current situation includes fixing the initial (current) state of the components of the natural environment and socio-economic conditions in the zone of potential impact of the proposed activity in accordance with the requirements of the IFC PS-1.

This assessment was initiated at the stage of the preliminary ESIA assessment (scoping), and was continued during the main stage of the ESIA studies.

As noted above, gaps in original data have been filled by using alternative sources (collecting relevant information) and by conducting baseline studies.

An assessment of the initial state of the natural environment and socio-economic conditions in the area of potential influence of the planned activity is presented in this report (book 2, 125-1105-ESIA-P0-2, Sections 6, 7).

3.4 Identification and assessment of impacts

Identification and assessment of the significance of impacts include:

- impact forecast;
- impact assessment itself (see below for details);
- check of residual influences.

As part of the main stage of the ESIA studies, a justification was made for measures to prevent and/or minimize (compensate) negative impacts and/or their consequences.

The effectiveness of measures to prevent and/or minimize negative impacts is determined by the level of residual impacts, in terms of their acceptability for receptors or significance.

The assessment process was carried out until an acceptable level of residual impacts was reached.

3.4.1 Impact identification

The main methods used to identify the impacts on the natural and social environment of the area where the proposed activity is located:

- analysis of materials of specialized studies, results of engineering surveys, urban planning and/or other documentation of territorial planning, environmental monitoring data;

- analysis of decisions on planned activities and associated projects, taking into account the stages of the life cycle (construction, operation, decommissioning);
- stakeholder consultations;
- identification of impacts as a result of the analysis of the chain “source – path – receiver”.[2]

In the future, when assessing the significance of impacts, important attention is paid to identifying recipients, as well as determining their sensitivity to potential impacts (see 3.4.4).

3.4.2 Life cycle stages

With regard to the components of the environment and socio-economic conditions, potential impacts and their significance are determined for each of the life cycle stages of the proposed activity.

ESIA considers the following stages of the life cycle:

- construction;
- exploitation.

Decommissioning of the facility is not considered, since the continued demand for power plant products (electricity) is assumed for a conditionally unlimited period, forecasting impacts beyond which become impractical due to the high uncertainty of the results.

Given the lack of information on the facilities associated with the project (power lines, gas pipelines and water supply), forecasts and impact assessments for the construction and operation phase of these facilities are not carried out.

3.4.3 Characteristics of impacts

The impacts of the proposed activity are classified based on their characteristics, which ultimately determine the ability to manage and control. Table 7 provides the impact characteristics adopted for this ESIA.

Table 7 Characteristics of impacts

Indicator	Definition	Characteristic
Orientation	Positive	Impacts associated with positive changes (consequences) for recipients
	Negative	Impacts associated with negative changes (consequences) for recipients
Genesis	Direct	Impacts related to the direct interaction between the proposed activity and recipients
	Indirect	Impacts not related to the direct interaction between the proposed activity and recipients
Mechanism	Cumulative	Impacts of the proposed activity, the significance or consequences of which for recipients may increase as a result of impacts that are not related to the proposed activity, but are characteristic of the territory and/or receptors under consideration

[2] In accordance with the requirements of the ESIA assignment.

3.4.4 Impact Significance Assessment

The ESIA uses a traditional methodological approach to assessment, which makes it possible to characterize the potential impacts of the proposed activity according to several indicators (Table 8):

- distribution (scale);
- duration;
- reversibility.

Table 8: Impact assessment indicators

Indicators	Significance	Characteristics
Distribution (scale)	Local	The impact is localized within the boundaries of the facility site, sanitary protection zone, and/or part of the area of the planned activity in the immediate vicinity of the facility (part of the drainage basin)
	Domestic	The impact is localized within the area of the proposed activity (administrative district, municipality) or the catchment area of a large watercourse
	Regional	The impact is localized within several areas or catchment areas of large watercourses
	Transborder	Impact affecting recipients beyond state borders
Duration	Short-term	Impacts associated with short-term or irregular events only
	Medium-term	Impacts are strictly limited to the stages of construction, operation, there are no residual impacts
	Long-term	The impacts are typical for the stages of construction, operation, there are residual impacts
Reversibility	Reversible	Restoration of the original state of the recipient either as a result of taking corrective/compensatory measures and/or self-recovery
	Irreversible	Impacts that cause permanent changes in the recipient

Table 9: The magnitude of the impact

Impact	Criteria
Insignificant	The impact does not affect the recipient's indicators; their values are comparable to background levels, the functions and processes inherent in the recipient are not violated. The changes are within the limits of natural variability
Small	Changes that can be captured by generally applicable monitoring methods without affecting significant ecosystem or community functions Distribution: local or domestic Duration: short-term, medium-term or long-term Reversibility: reversible
Medium	Impacts that may lead to changes in ecosystems or in the way and quality of life of communities, but without their transformation, loss (total or partial) of their natural functions Distribution: domestic or regional Duration: medium-term or long-term Reversibility: reversible or irreversible
High	Impacts related to the transformation of ecosystems and/or the loss of their functions, the transformation of the quality of life of communities Distribution: regional Duration: medium-term or long-term Reversibility: reversible or irreversible

The significance of an impact is determined by its magnitude and the sensitivity of the recipient. In turn, sensitivity to impacts depends on the resistance of the recipient to changes (the ability to restore and/or maintain significant functions) and the value/uniqueness of the recipients; the characteristics of the impacts are presented, allowing for assessing their significance (Table 10).

Table 10: Recipient sensitivity

Significance of the recipient	**Sustainability of the recipient**	
	Sustainable	Unsustainable
Insignificant	Minor	Low
Significant	Medium	High

Table 11 presents the characteristics of the impacts, which make it possible to assess their significance.

Table 12: Impact significance assessment matrix

Magnitude (degree) of impact	**Recipient sensitivity**			
	Minor	**Low**	**Medium**	**High**
Insignificant	Negligible	Negligible	Negligible	Negligible/low
Small	Negligible	Low	Low / Moderate	Moderate
Medium	Negligible	Low / Moderate	Moderate	High
High	Low	Moderate	High	High

Impact significance assessment is also carried out taking into account the implementation of measures to prevent and/or minimize negative impacts and/or their consequences.

At the final stage of the assessment, using this algorithm, an assessment of the residual impacts is performed, taking into account measures to prevent and/or minimize negative impacts and/or their consequences and/or compensatory measures.

3.5 Recommendations

Impact significance assessment provides the basis for developing measures to prevent/mitigate impacts, control and monitor the effectiveness of their implementation.

Justification of measures is carried out in accordance with the hierarchy recommended by the IFC PS-1:

- impact prevention;
- impact minimization;
- restoration of affected components/ecosystems/communities – if applicable;
- compensation to affected components/ecosystems/communities – if applicable;
- “offset” (improvement)[3] – if applicable.

In the ESIA, special attention should be paid to impacts whose significance is assessed as “High”. However, the Consultant and the initiator of the planned activity have considered measures for other impacts.

3.6 Cumulative impacts

Cumulative impacts are impacts generally recognized as significant based on scientific opinion and/or based on the concerns of the affected communities.

[3] As a rule, in relation to measures for the conservation of biodiversity.

The requirements and approaches to assessing cumulative impacts are set out in several IFC documents:

- PS-1 [1];
- Manual [2], Basic requirements P37-P43:

P37. The diverse environmental and social impacts of existing projects, combined with the potential for additional impacts from proposed and/or anticipated future projects, may result in cumulative impacts.

- P38. If a project includes specific physical elements, aspects and objects that can cause impacts, the process of identifying risks and impacts must include an assessment of the cumulative impacts of several project-related components. In situations where several projects are carried out or planned in the same region, it is advisable to conduct a cumulative impact assessment (hereinafter referred to as CIA).
- P39. Cumulative impacts are those that arise as a result of additional project impacts added to other existing, planned and reasonably predictable future projects and events.
- P40. An important element of the CIA is to determine the size of the area around the project to be evaluated, the appropriate time period, and approaches to assessing complex interactions between different projects occurring at different times. CIA process is, in principle, similar to environmental and social impact assessment, and therefore its implementation is based on the accepted methodology.
- P41. In accordance with clause 8 of Performance Standard 1, in the case of financing projects that include various physical elements, aspects and objects capable of causing impacts, it is required that, as part of the ongoing environmental and social impact assessment, the cumulative impacts from the further development of the project and other related events are identified and assessed, the impacts of which may be enhanced as a result of the implementation of the planned activities. CIA should be proportionate to the additional contributions, sources, extent and severity of cumulative impacts and limited to only those impacts determined to be important based on the scientific interests and/or concerns of affected communities. Potential impacts occurring without or independently of the project should not be considered.
- P42. The environmental and social assessment should identify situations associated with existing projects that may be exacerbated by the funded project, which could result in cumulative impacts. Priority should be given to assessing the cumulative impacts of the project being considered for funding, such as future planned events associated with the project and other future similar events in the project's area of influence that are realistically identified at the time of assessment.
- P43. Where necessary, the customer shall take economically feasible steps to involve relevant government agencies, other developers, affected communities and, as appropriate, other interested parties in the assessment, development and implementation of coordinated mitigation measures to manage potential cumulative impacts resulting from the implementation of multiple projects in the area of influence of the same project.

- The Guideline "Assessment and management of cumulative impacts: a guide for the private sector in emerging markets" [3].

To assess cumulative impacts, the Accelerated Assessment of Cumulative Impacts (hereinafter referred to as ACIA) methodology, discussed in [3], is used.

When assessing cumulative impacts, it is required:

- forecast of the joint (cumulative) impact of the planned activity, other types of activities/projects, and natural conditions with an assessment of the sustainability of valuable environmental and social components (VESC);

- justification of measures that exclude significant risks to the functioning of the VESC.

ACIA provides for [3]:

- determination of the scope of work, stage 1 – identification of the VESC, justification of the spatial and temporal framework;
- determination of the scope of work, stage 2 – other activities and significant environmental factors;
- determination of the background state of the VESC;
- assessment of cumulative impacts on VESC;
- assessment of the significance of cumulative impacts;
- preparation of management decisions regarding cumulative impacts.

It should be noted that the cumulative impact assessment was carried out at a qualitative level, but this forecast is based on measurable impact indicators and/or environmental characteristics determined from data from special studies.

As the VESC, the ESIA examines the receptors whose consideration is important for assessing the consequences arising from cumulative impacts.

Impacts on the natural and social environment characteristic of the area of the planned activity are considered, taking into account their significance; that is, the assessment is carried out for recipients in relation to whom the project is assessed as a source of significant impacts.

The spatial scope of the work includes territories where activities have an impact on the MESC simultaneously with the impacts of the planned activity.

PS-1 of the IFC requires consideration of ongoing or planned activities that are not directly related to the project, which are being implemented, planned or can be reasonably predicted.

According to the recommendations of the ACIA, it is advisable to use the stages of the project life cycle as a time frame.

Further clarification of the scope of the assessment is aimed at identifying past, current and planned activities and/or environmental parameters that are characteristic of the territory under consideration and potentially associated with impacts on the VESC.

Data on the state of the natural and social environment in the area of the planned activity are based on baseline studies materials and information obtained from open sources and/or provided by authorized bodies.

The actual assessment of cumulative impacts includes:

- definition of VESC, characteristics of their stability in relation to the considered impacts;
- definition of “external” activities, including the state (factors) of the environment that potentially have an impact on the VESC.

To assess the significance of impacts, the methodological approach outlined above was used (see. Section 3.4).

The preparation of management decisions regarding cumulative impacts is based on the hierarchy of measures presented in Section 3.5 (prevention -minimization - restoration - compensation).

As a rule, the assessment of cumulative impacts does not require the development

of specific (“unique”) measures to prevent and/or mitigate them. However, the Consultant did not exclude the need to consider additional measures that require discussion with stakeholders (representatives of business, local administrations, authorized bodies in the field of environmental protection).

3.7 Presentation of results

The results of the impact assessment are presented in accordance with the matrix layout given in Table 13.

The matrix is completed for each recipient and for each stage of the life cycle of the proposed activity. The matrix consists of two parts – the first part contains an assessment of the sensitivity of the recipient, the second part – the actual characteristics of the impact.

Impact assessment a priori assumes that the recommended measures for and/or prevention of negative impacts, as well as compensatory measures (if developed) will be implemented.

The last row of the matrix presents the characteristics of the residual impacts, – i.e. provides an assessment of the impacts predicted after the implementation of all activities recommended in this study.

3.8 Sources

1. Performance standards for environmental and social sustainability. IFC, 2012

2. International Finance Corporation Guidelines: Environmental and Social Sustainability Performance Standards. IFC, 2012

3. Good Practice Guide “Assessment and Management of cumulative impacts: a guide for the private sector in emerging markets”. IFC, 2013

Table 13 Matrix of impact assessment results (filled in by life cycle stages)

Life cycle stage: specify Recipient: specify

Part 1. Sensitivity of the recipient: give the name (multiple recipients are allowed)

Significance	**Sustainability**	
	Sustainable	Unsustainable
Insignificant	Minor	Low
Significant	Medium	High

Part 2. Impact Characteristics (provided for each receptor, if applicable)

Impact	The name is given		**Orientation**	**Genesis**	**Mechanism**
			Positive/ Negative	Direct/Indirect	Cumulative (mark is made)
Primary impact	**Scale**	**Duration**	**Reversibility**	**Magnitude**	**Significance**
	Local Domestic Regional	Short-term Medium-term Long-term	Reversible Irreversible	Insignificant Small Medium High	Negligible Low Moderate High
Consequences	.....				
Measures	.....				
Residual impact	**Scale**	**Duration**	**Reversibility**	**Magnitude**	**Significance**
	Local Domestic Regional	Short-term Medium-term Long-term	Reversible Irreversible	Insignificant Small Medium High	Negligible Low Moderate High

4 CHARACTERISTICS OF THE PLANNED ACTIVITY

4.1 General information

4.1.1 Location of the object

Administratively, the planned combined cycle gas turbine power plant will be located in the Sharaf-Rashidov district of the Jizzakh region. The distance from the allocated territory to the border of Jizzakh, which is located in a westerly direction, is 5.5 km. The territory of the allocated construction site is surrounded by empty agricultural fields. Figure 4.1.1 shows the location of the construction site.

The nearest highways run in a northerly direction at a distance of 325 meters (A 376) and in a westward direction at a distance of 95 meters (M 39) from the designated site for the construction of a power plant.

The “Jizzakh-Khawast” railway line runs in a northerly direction at a distance of 60 meters from the site under consideration.

The nearest surface watercourse to the designated construction site is a ditch that flows at a distance of 11.5 meters in an easterly direction with a maximum capacity of 20 to 25 cubic meters (it depends on the season) of water per minute and a total depth of up to 1-2 meters along the edge of the normal water level.

The local government constructed the ditch in order to gather water and transport it to the water collection points. Jizzak Reservoir has nothing to do with the ditch and is not used for irrigation activities.

CENERGO has carried out extensive consultations with the Reservoir Authority to confirm that the project’s planned water use will not adversely affect other existing water users.

Additionally, Cenergo assured the local government that the project's water usage would not negatively affect the water shareholders or local users, including in the event of future climate change-related reductions.

Figure 4: Industrial site and adjacent facilities

4.2 Project activities

4.2.1 Technological solutions and personnel

On the allocated territory it is planned to install a gas turbine unit (GTU) “Siemens SGT5-4000F V10”, with a power of 365.3 MW (50 Hz), manufactured in Germany (1 unit). Also, at the planned power plant, electrical energy will be generated using a steam turbine (ST) “Siemens SST-700/900”, with a capacity of 185.3 MW, manufactured in Germany (1 unit) (Table 9).

The total production of electrical energy at the power plant will be 4 000 000 MWh per year. The operating mode of the new combined cycle power plant is basic, year-round, round the clock with the maximum possible number of hours of use of production capacity.

Modern and innovative technologies used at the new power plant will have high efficiency, which is twice as high as those of existing, traditional thermal power plants. This, in turn, will generate twice as much electricity with the same consumption of natural gas.

It should be noted that in standard gas turbine installations for the production of electricity, the efficiency is 35-40%. In the proposed combined cycle with the use of combined cycle gas plants, the efficiency will be in the range of 55-60%. The construction time of a combined-cycle gas power plant is much shorter than the construction time of traditional thermal power plants of other types. At the same time, the transition to a combined-cycle gas cycle makes it possible to improve the environmental performance of the plant and significantly reduce the level of harmful emissions into the atmosphere.

The total electrical efficiency of the proposed CCGT is 61%. The CCGT in question belongs to a relatively new type of power plant powered by natural gas. Combined-cycle gas units are designed to produce the maximum amount of electricity (primary and secondary from hot exhaust gases).

Table 14: Main technical characteristics of a combined-cycle gas power plant

Characteristic	**Description/value**
Type of technology	Combined cycle gas turbine technology
The total area of the allocated plot for construction is	9.43 ha.
Number of combined cycle gas turbine plants (CCGT)	1 unit, capacity 356.3 MW
Type of CCGT	Gas Turbine (GT) series: “Siemens SGT5-4000F V10” – 1 unit. (manufacturer Germany)
Number of steam turbines (ST)	1 unit, capacity 193.7 MW
Type of steam turbine	Steam turbines (ST) of “Siemens SST-700/900” (manufacturer Germany) series.
CCGT ECE	61%
Power generation	550 MW
Number of working hours per year	7800 hours/year
Fuel	Natural gas
Annual consumption of natural gas	748 800.0 thousand m3/year
Consumption of conventional fuel for electricity generation	1230 g.t/kWh

Type of condenser cooling	Water-cooled
Type of cooling tower	Cooling towers with artificial ventilation
Number of chimneys	2 units
The height of two chimneys of the CCGT	60 meters
Diameter of the chimney mouth	The bypass pipe is 7.0 meters and the boiler pipe of the heat exchanger is 7.2 meters

GTU - SGT5-4000F model with a capacity of 365.3 MW (50 Hz) is a powerful, reliable, energy–efficient gas turbine showing excellent performance in a simple cycle – 365.3 MW and high efficiency in a combined cycle – 62%.

The ease of maintenance of the modular design leads to short downtime, ensuring that the GTU reaches maximum operational readiness in a short time.

Innovative internal cooling air channels ensure reliable long-term operation and the ability to start quickly. Changing the design of the hydraulic gap (HCO) reduces losses in the gap, which increases the efficiency of the GTU, minimizes wear, mechanical, vibration, and temperature loads during start and stop.

The main structural components of SGT5-4000F:

- 15-stage axial compressor;
- annular combustion system;
- 4-stage air-cooled turbine.

The rotor with self–centering, leveling discs, with Hirth notches, central thrust is a guarantee of simple and fast assembly, maintenance, repair, balancing and replacement of parts on site. The upgraded internal channels for the cooling air flow reduce the load on the main structural components of the GTU, ensure a long period of maintenance-free operation

Variable angle guide vanes plus two stages of high-speed variable pitch guide vanes (VGV) increase partial load efficiency and optimize performance over a wide range of operating conditions.

Built-in valves provide a controlled supply of cooling air.

Technical characteristics of GTU:

- Full capacity 329 — 385 MW
- fuel – natural gas, LNG, acid gases, distillate oil, H, biodiesel, kerosene, jet fuel, condensate, oil;
- 50 Hz
- efficiency – 41% — 41.5%;
- heat consumption – 8780 — 8675 kJ/kWh;
- turbine speed – 3000 rpm;
- pressure ratio 20.1 to 1, 21.0 to 1
- exhaust gas consumption – 724 – 800 kg/s;
- exhaust temperature – 599 — 619°C;

Specific emissions of pollutants:

- No_x ≤ 25 ppm at 15% on liquid fuel (with water injection for NO_x control);

- CO ≤ 80 ppm;
- Formaldehyde – N/A

Siemens has improved the SGT5-4000F, providing higher component efficiency due to better aerodynamics of the compressor and turbine, as well as higher gas turbine performance.

With its high steam capacity, the SGT5-4000F is excellent for cogeneration or combined heat and power generation (CHP), for example, for:

- desalination of seawater;
- technological steam;
- district heating.

Siemens SST-700 steam turbine 185.3 MW

The steam turbine model “SST-700” is an energy efficient and standard solution for a turbine with a short delivery time due to a fixed predesigned structure.

The “SST-700” model steam turbine provides a short period of power generation, cost-effective supply of materials and fast delivery from the factory.

A ramjet turbine with a capacity of 185.30 MW consists of a high-pressure steam turbine (backpressure), which drive a generator installed between them.

The steam turbine with an internal casing is a competitive and optimized product for combined cycle power plants.

Technical parameters:

- rotation speed from 3,000 to 3,600 rpm;
- inlet pressure up to 180 bar / up to 2,611 psi;
- inlet temperature: up to 585 °C / up to 1,085 ° F;
- exhaust steam parameters: up to 0.3 bar / 4.4 psi;
- superheated steam temperature: 565 °C / 1,050 °F;
- superheated steam pressure: 45 bar (A) / 842 psi;
- controlled extraction: 72 bar / 1,044 lb/sq. an inch.

The principle of CCGT operation

The air compressed in the CCGT compressor continuously enters the combustion chamber, where it promotes the combustion of gaseous fuel at constant pressure. The combustion products enter the gas turbine, where the kinetic energy of the gas flow is converted into the mechanical work of rotating the turbine rotor, where electrical energy is obtained. The temperature of the gases in front of the gas turbine, depending on the turbine series, is in the range of 1100-1500°C.

After the CCGT, the exhaust gases at a temperature of 670°C enter a waste steam generator (waste heat boiler), in which steam is formed by transferring the thermal energy of gases from the gas turbine to feed water and steam. Gases from the recovery boiler are released into the atmosphere through the chimney at a temperature of about 85-140°C.

The steam generated in the recovery boilers enters the steam turbine, where the kinetic energy of the steam drives the turbine, generating secondary mechanical energy, and accordingly additional electrical energy is obtained.

The combined cycle gas plant consists of two separate units: steam power and gas

turbine. In combined-cycle gas installations, the first generator is located on the same shaft with a gas turbine, which generates an electric current due to the rotation of the rotor. Passing through a gas turbine, the combustion products give it only a part of their energy and still have a high temperature at the outlet of the turbine. Further, the combustion products enter the steam power plant, into the heat recovery boiler, where water vapor is heated. The temperature of the combustion products is sufficient to bring the steam to the state necessary to rotate the steam turbine and obtain additional electrical energy.

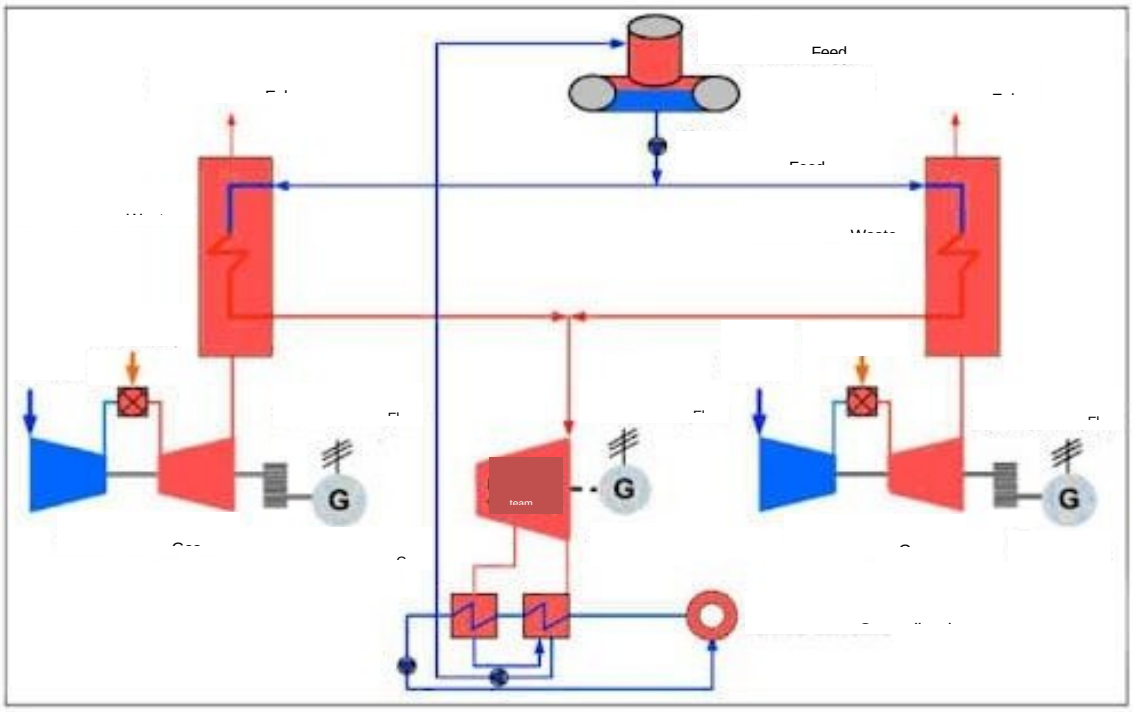


Figure 5: Cycle of electric energy production

It is planned to have production units on the territory of the power plant, where electricity will be directly generated, as well as auxiliary units.

Table 15: Composition of production and support units

Item	Name
1.	**Water intake facilities**
1.1	Water intake area
1.2	Pumping station
2.	**Chemical water treatment site (ChWT)**
2.1	The building of the water treatment plant
2.2	Sewage sump
2.3	Chemical dosing building
2.4	Containers with raw water.
2.5	Containers with demineralized water
2,6	Cooling tower
2.7	Condenser for cooling water
2.8	The fire station building
3.	**Gas turbine plant**
3.1	Gas turbine
3.2	Waste heat boiler

4.	**Steam turbine plant**
4.1	Steam turbine
4.2	Water-cooling condensers
5.	**Compressor station**
5.1	The building of the gas compressor station
5.2	The building of the gas measurement station
6.	**Transformer section**
6.1	Transformers
6.2	High voltage distribution area
7.	**Support units**
7.1	Administrative building
7.2	Repair and mechanical workshop
7.3	Warehouse building
7.4	Parking place for cars
7.5	Dining room
7.6	Laboratory
7.7	Diesel generator set
7.8	Checkpoint.

During the construction of the power plant, about 650 builders will work on the territory of the construction site, 600 of them are employees, and 50 are engineering and technical personnel.

70 employees are expected to be involved in the operation of a combined cycle steam and gas power plant, of which: 5 people are engineering and technical personnel; 65 people are production and operational personnel, employees and employees.

4.2.2 Land use

The construction of the infrastructure of the combined-cycle power plant led to the economic displacement of the land user (“Donabek Sano” farm), according to the results of the survey it was found that compensation payments were made in full, the farm has no claims to the project.

The total area of the allocated plot for the construction of the combined cycle gas turbine power plant is 94.305,25 m2 or 9.43 ha, including: for the construction of the station 29.120,00 m2 or 2,912 ha; for hard surfaces (parking, roads and others) 28.630,25 m2 or 2.863 ha; for green spaces 28.630,25 m2 or 2.863 ha. Nowadays, the territory is under construction.

4.2.3 Water supply

The water supply of the planned power plant during operation consists of production and household and drinking needs.

The power plant’s water supply sources are:

- Pipeline that has been established by the water authority (Figure 5);

The Water Ministry, which is in charge of supervision and maintenance, installed two pipes on the reservoir. There is a spare pipe and an operational pipe. The pipe has a 140 cm diameter and no pump has been installed. Gravity drives the water flow process.

Cenergo will establish 2 pipes (60 cm) on the existing pipeline that is controlled by the authority. The pipes that will be established by Cenergo will not be related directly to the Jizzak Reservoir.

- Water supply wells for household and drinking needs.

Water consumption for the production needs of a power plant consists of water consumption:

- To recharge the steam-water cycle and the circulating cooling system;
- To purge cooling towers;
- On the need for additional water of the ChWT system.

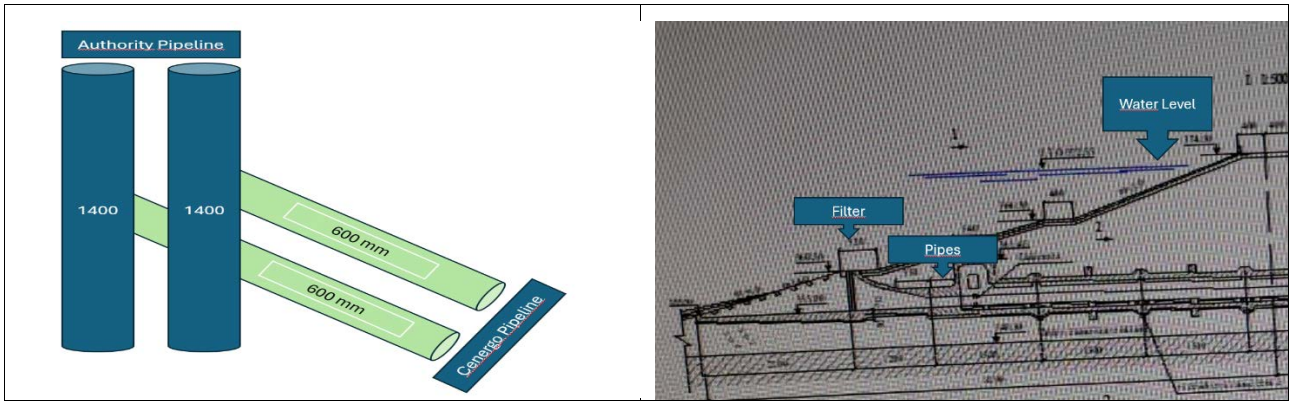


Figure 6: Water Supply Pipeline Design From Existing System

A closed, circulating cooling system is used to cool the CCGT equipment. A mixture of demineralized water and ethylene glycol is used as a cooling medium in a closed circuit.

The heated water of a closed circuit is cooled by water from an auxiliary (external) circuit, which includes wet fan cooling towers with an internal pool, pumping stations, an inhibitor dosing system and monitoring devices. The water bowl of the cooling tower is filled with clarified water supplied by pumps from the tanks of the industrial water supply.

The additional water consumption consists of the losses of the settling tanks, the circulating cooling system (evaporation and entrainment of drip liquid in cooling towers), the water consumption for purging cooling towers, as well as the intake of additional water into the ChWT system.

The primary treated water is sent to the raw water storage tank, from where the water flow is further distributed to the needs of the cooling tower, to recharge the cooling tower, and to demineralize and cool the systems.

The circulating water cooled at the cooling towers is supplied via circulation pumps to the condensers of the steam turbine and to all auxiliary equipment through circulation ducts. After condensers and other heat exchangers, the spent (heated) water is sent to cooling towers for cooling by circulating water ducts.

Replenishment of losses in the circulation system (evaporation and entrainment of water in cooling towers, purging of the circulation system) is provided by supplying additional water from the raw water tank.

In order to avoid the formation of salt deposits on the walls of the equipment, constant purging of the cooling towers is provided. Purge waters are conditionally clean. The water after purging, being conditionally clean, is planned to be discharged through a ditch that flows at a distance of 11.5 meters in an easterly direction with a maximum capacity of 20 to 25 cubic meters (it depends on the season) of water per minute and a total depth of up to 1-2 meters along the edge of the normal water level.

The local government constructed the ditch in order to gather water and transport it to the water collection points. Jizzak Reservoir has nothing to do with the ditch and is not used for irrigation activities. (Figure 6).

CENERGO has carried out extensive consultations with the Reservoir Authority to confirm that the project's planned water use will not adversely affect other existing water users.

Additionally, Cenergo assured the local government that the project's water usage, including in the event of future climate change-related reductions, would not negatively affect the water shareholders or local users.

Figure 7: Ditch-canal next to the project area, where treated water will be discharged

According to the data provided by the investor, the production water consumption is formed conditionally based on the calculation of electricity generation per 1 MW of about 0.36 m3 of water.

The approximate water consumption is calculated taking into account the water consumption per 1 MW - about 0.36 m3 (water intake for the chemical water treatment system, recharge of the raw water tank, fire system and others).

With the production capacity of the power plant - 550 MW/h, the hourly water consumption will be: 550.0 x 0.36 = 200.0 m3/hour, 4800 m3/day. Required permit for water supply will be obtained from local authorities (municipality, Jizzakh Region Reservoir Management etc.)

The power plant will use a circulating water supply system with the installation of a fan-mounted cooling tower of the “CENK” type (3 fans in each tower). The cooling range of the cooling towers will be 10 C, the inlet water temperature is 34 C, the outlet water temperature is 24 C, the drip loss is 0.20% and the evaporation of water will be 1.30%.

After filling the system with a technological volume of water, there is a periodic replenishment of water losses in the technological cycle. Replenishment of losses in the circulation system (evaporation and entrainment of water in cooling towers, purging of the circulation system) is provided by supplying additional water from the raw water tank.

The cooling water from the cooling tower will be used mainly in the condenser to condense the exhaust steam. The oil block also uses cooling water to cool the lubricating oil.

4.2.4 Water disposal

According to the technology, in order to avoid the formation of salt deposits on the walls of the equipment, the cooling towers are constantly purged. Purge waters are conditionally clean. The total salt content in this water does not exceed the salt content in the source water. It is planned to monitor the salinity in the source and purge waters (for

example by reflectometers). The purge water of the cooling tower and the water after cooling of the equipment are diverted to the internal sewer network of the enterprise and then it is planned to be sent to the ditch. According to the local legislation, the SEC (Conclusion on Environmental Consequences) should be developed before the project commissioning, in which the maximum allowable discharges of wastewater are approved for 5 years of operation.

An oil-containing water collection and treatment system is provided on the territory of the 550 MW power plant, which is an integral part of the power plant operating on gas turbine installations. The system is designed to collect water from areas that may be contaminated with oil for its subsequent treatment.

The oily wastewater will be separated from the oil using an oil separator. The separated oil will be transferred to a specialized organization for processing, and the treated water from the oil separator will be sent back to the tower of the cooling tower.

In case of emergency discharges of wastewater contaminated with petroleum products, it is necessary to ensure their safe removal and transfer of contaminated water to the nearest treatment facilities.

It should be noted that when using the innovative “Dry Flexicycle” technology in the steam cycle of a dry condenser connected to the radiator cooling circuit, the total water consumption of the power plant drops to such a low level that it can be used in the most arid and arid regions. “Dry Flexicycle” is the optimal solution for power plants operating on a flexible base load (both with gas and multi-fuel configurations).

Household wastewater will be discharged into waterproofing cesspools with a volume of 60 m3 each, followed by export to the nearest treatment facilities on the basis of an economic agreement with specialized enterprises.

Rainwater from the territory and from the roofs is provided to be collected by a system of trays for further use for irrigation, and then it is discharged by ditches into the water network of the district.

Household wastewater (excluding water for irrigation of the territory, greenery and 40% of water, which relate to irretrievable losses during floor cleaning) will amount to 17,993 m3/day. or 6277.67 m3/year.

Then, the total volume of production and household effluents at the power plant will amount to 1,651,993 m3/day. or 578401.7 m3/year.

During the operation phase, treated wastewater will be discharged to the ditch in terms of “**Reduced permissible concentrations of pollutants in the water of surface water bodies by categories of use**” standards, Fish-Farming category.

1 OPTIONS	Fish-farming	Cultural and household	Drinking	Irrigation*)
COD	15	40	30	40
BOD20 , mgO/L	3	3-6	3-7	10
PH	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
Weighted Substances	15	30	30	50
Mineralization	1000	1000	1000-1500	1000
including: sulphates	100	500	400-500	
Chlorides	300	350	250-350	
Ammonium nitrogen (ammonium saline) (NH_4^+)	0,5	2	0.5	1.5
Nitrite nitrogen (NO_2^-)	0.02	0.5	3	0.5
Nitrogen nitrate(NO_3^-)	9.1	25	45	25
Nitrites	0.08	3.3	3	
Nitrates	40	45	45	
Phosphates (PO_4^{3-})	0.3	1	3.5	1
Ether-soluble	0.05	0.8	0.8	0.8
Petroleum products	0.05	0.3	0.1	0.3
SPAV	0.1	0.5	0.5	0.5
Phenol	0.001	0.001	0.001	0.001
Fluorine (F)	0.05	1.5	0.7	1
Arsenic (As)	0.05	0.05	0.05	0.1
Iron (Fe)	0.05	0.5	0.3-3	5
Chromium ($Cr6^-$)	0.001	0.1	0.05	0.1
Copper (Cu)	0.001	1	1	1
Zinc (Zn)	0.01	1	3	5
Cyanides	0.05	0.1		
Lead (Pb)	0.03	0.1	0.03	0.2
Nickel (Ni)	0.01	0.1	0.1	
Cadmium (Cd)	0.005	0.01		
Cobalt (Co)	0.1	1		
Molybdenum (Mo)	0.0012	0.5	0.25	
Strontium $(Sr2)_+$		2	7	
Selenium (Se)	0.001		0.01	
Rhodanids	0.1			
Mercury (Hg)		0.005	0.0005	

1.1.1 Heat and power supply

Heat supply to the facility will be provided by an autonomous boiler house with an installed boiler with a capacity of 22 MW with a total gas consumption of 800,000 Nm^3/h per year.

Electricity supply will be provided by self-generated electricity.

1.1.2 Provision of material resources

The supply of natural gas to the combustion chambers of gas turbines will be carried

out using a gas compressor station.

The gas compressor station is designed to compress a mixture of hydrocarbon gases, which serves as fuel for a gas turbine, where, with constant operation of the station, oil refilling, filter cleaning and other station maintenance are provided for preventive maintenance.

The following equipment and machines will be located on the territory of the repair and mechanical workshops:

- vertical drilling machine;
- milling machine;
- lathe.

Also, on the territory of the power plant there are warehouses for storing various materials (16), household premises for working personnel and office premises for engineering and technical personnel.

Table 16: Characteristics of the raw and other materials and products used.

Item	Name	Quantity
1	Low-sulfur natural gas, m3	748.800.000
2	Diesel fuel for emergency diesel generator, tons	1.0
3	Compressor oil, tons	5.0
4	Turbine oil, tons	12,68
5	Transformer oil, tons	0.800
6	Engine oil, tons	0.200
Necessary chemicals and substances for water treatment and water treatment		
1	Sodium Hypochlorite 12% liquid	30.0 tons
2	45% liquid caustic	6.0 tons
3	97% liquid sulfuric acid	30.0 tons
4	Liquid Antiscalant	8.0 tons
5	98% sodium metabisulfite crystalline	1.0 tons
6	Coagulant	4.0 tons

Table 17 Characteristics of the natural gas used.

Item	Components	Gas composition, mol %
1	Carbon dioxide, CO2	1,27
2	Hydrogen sulfide, H2S	0,0013
3	Methane, CH4	94,04
4	Ethane, C2H6	3,84
5	Propane, C3H8	0.36
6	i-Butane, i-C4H10	0.03
7	n-Butane, n- C4H10	0.04
8	i-Pentane, i-C5H12	0.01

9	n-Pentane, n- C5H12	0.01
10	Hexane, C6H14	0.05
11	Oxygen, O2	0.08
12	Nitrogen, N2	0.35
Other characteristics		
1	Gas density at 20°C (kg/m³)	0,715
2	Relative gas density at 20°C (kg/m³)	0,5935
3	The highest Wobbe number (kcal/m³)	10598,8
4	The lowest calorific value (kcal/m³)	8165,5
5	Molecular weight of the gas (g/mol)	17,155

1.1.3 Transport support

The nearest highways run in a northerly direction at a distance of 325 meters (A 376) and in a westward direction at a distance of 95 meters (M 39) from the designated site for the construction of a power plant.

The “Jizzakh-Khawast” railway line runs in a northerly direction at a distance of 60 meters from the site under consideration.

It is planned to build an access road from the M39 highway to the facility about 90 meters away. The main part of this road exists with an earthen base will be improved.

Vehicles will undergo periodic maintenance and repairs off-site at service stations near the project area.

1.1.4 Waste management

At the projected 550 MW power plant in Sharaf-Rashidov district of the Jizzakh region, after commissioning, waste of both industrial and household nature will be generated.

The main production process is the generation of electricity from the combustion of natural fuels. The operation of gas turbines involves the use of oils. The waste generated during the operation of this equipment is spent engine oils, which will be exported to specialized enterprises for the processing of such types of waste.

Sludge from boiler cleaning is formed when deposits (scale) are removed by flushing them with water. The water is neutralized and settled in a specially designated place. The sludge generated in this case, characterized as sludge from cleaning equipment, will be sent to a settling tank for dewatering and then it is planned to be transported to a landfill for construction waste in accordance with an agreement with specialized organizations.

The main wastes in the turbine compartment are: spent turbine oil and compressor oil.

All used oils (compressor, turbine, transformer and motor oils) are subject to regeneration. If own oil regeneration plants are provided, then used oils can be regenerated at the enterprise itself. If not, the used oils will be exported to specialized enterprises for processing such types of waste.

Cable cuts containing non-ferrous metals for processing by “Ikkilamchi Rangli Metallar” LLC.

In the repair shop, where repair work is carried out, metal residues and electrode stubs are mainly formed. The scrap of ferrous metals, together with the electrode ends, is

transferred for processing to “Ikkilamchi Kora Metallar” LLC.

Scrap of non-ferrous metals is formed during the tool processing of metals, repair of instrumentation and control equipment, and is also contained in a damaged cable. The waste is not flammable, insoluble in water; it is chemically inactive under storage conditions. The scrap of non-ferrous metals is transferred for processing to “Ikkilamchi Rangli Metallar” LLC.

When washing the external heating surfaces of technological equipment in order to cool it, oily wastewater may form. They can form when there is a violation of density in the oil cooling system.

Also, oiled runoff can be formed as a result of rain flushing from the surface of the power plant site. Stormwater will be separated from the oil using an oil separator (oil trap). The oils separated from the water are discharged into a receiving container, and as they accumulate, they are exported for processing to a specialized organization. The treated effluents should also be directed to the nearest treatment facilities.

During the operation of the power plant’s medical center, the following waste is expected to be generated (waste from the medical center): disposable syringes after disinfection, used dressing material. These wastes, in agreement with medical institutions, will be sent for disposal.

The main waste from the canteen of the power plant is food waste, which is transferred to feed the livestock of the local population.

The offices of the management and engineering staff are located in the office premises. Waste can be waste paper and human waste. As waste paper accumulates, it is handed over to Recycling.

In addition, during the operation of the power plant, the following types of waste are generated: waste LED lamps - when lighting the territory of the power plant and premises; oiled rags (more than 15%) - when wiping equipment; various containers - when unpacking various materials and reagents; worn-out overalls - during the life of the working personnel; municipal solid waste (MSW); estimates - when cleaning asphalt and green areas.

The generated municipal solid waste will be exported in accordance with the established procedure to landfills for MSW of “Toza Hudud” LLC in the Jizzakh region.

At the designed power plant with a capacity of 550 MW in Sharaf Rashidov district of Jizzakh region, after commissioning, waste of both industrial and household nature will be generated in 21 types in the amount of 127.0 tons per year.

Detailed assessment of waste management activities is provided in Report 125-1105-ESIA-P0-3, Section 9.4.

1.1.5 Sanitary protection zone

SanPiN No. 0350-17, a regulatory document in Uzbekistan, outlines the sanitary norms and rules for the protection of atmospheric air, specifically concerning residential areas. Key restrictions outlined in SanPiN No. 0350-17 pertain to the type of activities and facilities that are permitted within these protection zones. It is prohibited to locate within the boundaries of the sanitary protection zone and on the territory of industrial sites:

Food industry enterprises, as well as enterprises producing tableware, containers, equipment, etc.

For the food industry, warehouses of finished products, enterprises producing

beverages and water for drinking purposes.

According to the Positive Conclusion of the State Ecology Expertise (Order Number: 01-1- 101228, valid until 05.02.2027) issued for Jizzakh CCGT Project, it is stated that as per SanPiN No. 0350-17, “Sanitary norms and rules on the protection of atmospheric air in residential areas of the Republic of Uzbekistan,” “Thermal Power Plants and district heating stations with a heat capacity of 200 Gcal and above, operating on gas and gas-oil fuel (the latter as reserve),” must maintain a normative sanitary protection zone of 300 meters. (The design capacity of the plant is 550 MW or 472.9 Gcal).

The general view below shows the 300-meter buffer zone around the emission sources, depicted on a Google Earth image.

Figure 8: 300m Buffer Zone from the Jizzakh CCGT Power Plant Emission Source

On a 300m radius from the Plant location, there are several structures advised as being poultry farm owned by Madaniyat Tarovati LLC.

On October 31, 2024, Madaniyat Tarovati LLC applied to the Jizzakh Regional Department of Sanitary-Epidemiological and Public Health Service to conduct an inspection on the possibility of operating this enterprise in the SPZ of the power plant. In response to this letter, the SES organized a visit and inspection of the company's activities.

Jizzakh Regional Department of Sanitary-Epidemiological and Public Health Service during the inspection it was established that the building of the poultry farm, owned by Madaniyat Tarovati LLC, has a construction area of 10,000 m2, is designed to house up to 30,000 broiler chickens and is located at a distance of at least 2,000 meters from the nearest residential area. Considering that, in accordance with paragraph 6.3. of the Sanitary Standards and Rules No. 0350-17 of 2017 “On the Protection of the Atmosphere of Residential Areas of the Republic of Uzbekistan”, this facility is a Class III object. Also, the poultry farm building is located at a distance of 2000 meters from the nearest residential area (has a security zone in relation to residential areas). Taking into account that, in accordance with paragraph 2.17 of the above rules, the enterprise does not produce food products, and the operation of this facility does not fall under the requirements of the sanitary protection zone of the 550 MW power plant located next to it, the Jizzakh Regional Department of Sanitary-Epidemiological and Public Health does not object to the operation

of this poultry farm in the SPZ of the Thermal Plant.

The full replay of the Jizzakh Regional Department of Sanitary-Epidemiological and Public Health Service is provided in Annex 1 of the Project Livelihood Restoration Plan (125-1105-LRP).

Thus, the placement of this enterprise in the SPZ of the enterprise will not lead to economic displacement and loss of income for Madaniyat Tarovati LLC.

1.1.6 Accidental situation

The causes of emergencies at combined-cycle power plant can be various technical and other disruptions in the supply of materials and raw materials (natural gas, steam, water, electricity), as well as violation of the tightness of pipelines and equipment, accompanied by a leak of natural gas, fire, gas contamination, explosion or other phenomena that create a danger for the further operation of the facility.

The occurrence of emergencies is possible due to various types of violations:

- technological failures caused by violation of the norms of the technological regime of production or a separate technological process;
- mechanical failures caused by partial or complete destruction, or wear of technological equipment, or individual parts;
- organizational and technical failures caused by the termination of the supply of raw materials, electricity, and staff errors;
- situations caused by natural disasters, fires and possible explosions.

Emergency risks at a combined cycle power plant with a capacity of 550 MW in Sharaf Rashidov district of the Jizzakh region during project implementation will be minimized through the use of a modern automated management and control system for the production process. The automated control system is designed to perform the functions of logical control, regulation in automatic and manual modes, emergency and restrictive protections, warning and alarm systems, monitoring, display and archiving of technological parameters, high-speed registration of major events and indicators in emergencies.

1.2 Associated facilities (projects)

According to the IFC PS-1 definition, associated facilities – facilities that are not funded by the project and that would not have been built or expanded if the project had not been implemented, and without which the project would not be viable.

Also, as an additional criterion, the location of objects in close proximity to the site of the planned activity is usually considered.

Associated objects of the project are:

Figure 2:Associated Facilities Road

According to the current situation of the associated facilities; the Electricity (**Pink** and **yellow** lines in the map): the local EIA study has been completed by the local authority (National Electric Networks of Uzbekistan) and EIA Approval was obtained on **15.09.2025**, lines with a length of approximately 8 and 10 km from the project area to the existing 220 kV overhead lines L-20-D and L-Z-C. – A draft scheme for the power output of a thermal power plant with possible connection options has been developed.

The water supply pipeline (**The Dark Blue** line in the map): the local EIA study has been completed by the local authority (Water Authority), and EIA Approval was obtained on **23.07.2025.**

The natural gas pipeline (**Turquoise** line in the map), the local EIA study has been completed by the local authority (TRANSGASENGINEERING LLC) and EIA Approval was obtained on **24.03. 2025**,

A **separate ESIA Addendum** (independent from this ESIA) is being prepared on behalf of the **project lenders**, in accordance with the project financing agreement. This addendum aims to identify and address any **gaps between the national EIA process conducted for regulatory approval in Uzbekistan** and the **environmental and social requirements of the lenders**.

As of January 2025, the associated objects of discussion and primary design are Figure 8; Figure 9.

Therefore, for associated properties, the ESIA materials will provide information reflecting only the current status of the projects.

For associated facilities, A gap analysis and a comparison table will be conducted regarding national EIAs (which will be the responsibility of local authorities) and international requirements (IFC standards—lenders' expectations).

Figure 9: Associated objects (preliminary power line route)

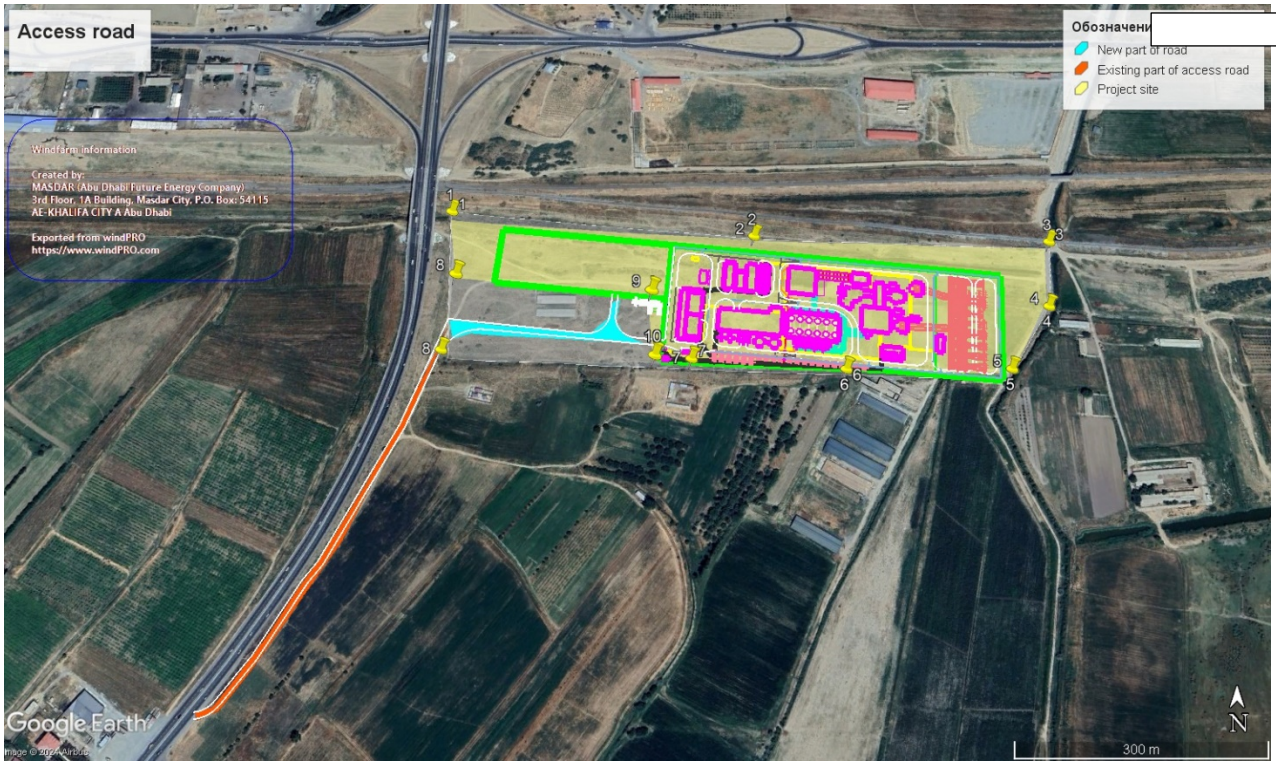


Figure 10: Access road

Figure 11: Water Supply Pipeline Design From Existing Pipeline System

1.3 Analysis of alternatives and options for planned activities

1.3.1 Alternatives analysis

When assessing this alternative in accordance with the requirements of IFC PS-1, the following should be taken into account.

In recent years, significant positive changes have been observed in the legislation of the Republic of Uzbekistan, aimed both at improving the efficiency of energy industry enterprises, introducing energy-efficient technologies, and increasing the investment attractiveness of this sector of the economy as a whole.

It should be noted that within the framework of the “Concept of providing the Republic of Uzbekistan with electric energy for 2020-2030” it the following is stipulated:

- increase of electricity production from 63.6 billion kWh to 120.8 kWh;
- reduction of natural gas consumption in the production of electric energy from 16.5 billion cubic meters to 12.1 billion cubic meters;
- reduction of electricity transmission losses to 2.35% and distribution losses to 6.5% (1.85 times less than in 2019).

Thus, the implementation of the project corresponds to the program for reforming the energy sector of the Republic of Uzbekistan.

Taking into account the above, the conclusion about the preference for considering the construction and operation of a combined cycle power plant compared to the “zero option” was made at the stage of preliminary environmental and social assessment (see 125-1105-SR), a detailed consideration of the “zero” option is not carried out.

1.3.2 Placement of the Facility

The construction of the project at the designated industrial site will be accompanied by:

- the need to get rights to new land plots, namely, to the site of the facility and infrastructure facilities;
- the seizure of land for the power plant site and infrastructure – roads, utilities, etc.;
- the need to organize a separate sanitary protection zone.

Also, there was no alternative location for the planned industry.

1.3.3 Technological solutions

When considering the issue of commissioning additional capacities for the production of electric energy and the construction of thermal power plants in Jizzakh region, it was also assumed to obtain electric energy using traditional gas-fueled power units.

Analysis of all parameters, including the type of fuel used, fuel consumption per 1 kW/hour, efficiency and, accordingly, the amount of electric energy produced showed that compared with traditional generators, a combined cycle combined cycle power plant running on gas for electricity generation consumes 2.0 times less fuel and efficiency is more than 61%, whereas in in traditional power units - below 45%.

The construction time of the Gas piston instalation is much shorter than the

construction time of powerful thermal power plants of other types.

The use of a combined-cycle cycle makes it possible to improve the environmental performance of an energy enterprise and significantly reduce the level of environmental pollution. Compared with steam turbine and gas turbine power plants, the proposed technology will reduce the consumption of natural gas and, accordingly, emissions of pollutants, in particular nitrogen oxides into the atmosphere.

1.4 Aspects of proposed activities and related impacts

1.4.1 Environmental aspects and related impacts

At the stage of preliminary assessment, the following components of the environment are identified, which may be affected by the proposed activity:

- lands;
- atmospheric air;
- soil;
- surface waters;
- the groundwater;
- flora and fauna.

Environmental aspects of the proposed activity, which are accompanied by impacts on environmental components, the population, personnel and are further considered as part of the ESIA studies, are presented in Table 18.

Table 18: Environmental aspects of the planned activities

Activity/ process	Environmental aspects	Potential impacts	Recipients
Placement of objects of planned activity	Land seizure [4]– the actual seizure was made as a result of the allocation of a plot for the construction of a power plant The implementation of associated projects is not being considered at this stage [15]	Habitat removal Violation of the soil cover	Soil cover Vegetable world Animal world
Construction works (earthworks, civil works)	Air emissions of pollutants Water reduction in construction workings Generation of surface wastewater Noise Waste generation	Changes in the structure of land use Changes in atmospheric air quality Changes in the hydrological and hydrochemical regimes of surface and groundwater Changes in the acoustic regime of the territory Indirect effects on environmental components in the area of waste disposal facilities	Atmospheric air Surface water Groundwater Soil cover Vegetable world Animal world Population Personnel

Activity/ process	Environmental aspects	Potential impacts	Recipients

[4] Associated objects are at the stage of approval and initiation; evaluation is not carried out

Main production activity (electricity generation)	Air emissions of pollutants Generation of industrial wastewater Noise Waste generation	Changes in atmospheric air quality Greenhouse gas emissions/climate change Changes in the acoustic regime Indirect impacts on flora and fauna, soils Indirect impacts on the components of the natural environment in the area of waste disposal sites	Atmospheric air Groundwater Surface water Soil Vegetable world Animal world Population Personnel
Provision of the main production activities – repair work, water supply, sanitation, cleaning of the territory and industrial premises	Air emissions of pollutants Surface water intake Generation of surface wastewater Generation of industrial wastewater Noise Waste generation	Resource withdrawal – surface water abstraction Changes in atmospheric air quality Changes in hydrological and hydrochemical regimes of surface waters Changes in the acoustic regime Indirect impacts on flora and fauna, soils Indirect effects on environmental components in the area of waste disposal facilities	Atmospheric air Groundwater Surface water Soil Vegetable world Animal world Population Personnel
Transport and logistics (delivery of materials, fuels and lubricants, other transportation, storage of hazardous materials)	Air emissions of pollutants Generation of surface wastewater Noise Waste generation	Changes in atmospheric air quality Greenhouse gas emissions/climate change Change in the acoustic regime of the territory	Atmospheric air Population
Heat and power supply	Air emissions of pollutants Generation of surface wastewater Generation of industrial wastewater Noise Waste generation	Changes in atmospheric air quality Greenhouse gas emissions/climate change Changes in the hydrochemical regime of surface waters Changes in the acoustic regime of the territory Indirect impacts on the components of the natural environment in the area of waste disposal sites	Atmospheric air Surface water Population Personnel
Ensuring the needs of personnel (including at the construction stage)	Formation of household effluents Generation of household waste and waste equivalent to it (office waste, food waste),	Changes in the hydrochemical regime of surface and groundwater Indirect impacts on the components of the natural environment in the area of waste disposal sites	Surface water In the area of waste disposal sites: Atmospheric air Soil cover Vegetable world Animal world Population

1.4.2 Social aspects and related impacts

At the preliminary assessment stage, the following components and elements of the social environment are identified, which may be affected by the proposed activity:

- lands;
- population;

- personnel;
- health and safety;
- labor market;
- labor and working conditions
- cultural heritage.

Social aspects of the combined-cycle power plant and planned activities, which are accompanied by impacts on the components and elements of the social environment, discussed further in the ESIA, are presented in Table 19.

Table 19: Social aspects of the planned activity

Activity/ process	Social aspects	Potential impacts	Recipients
Placement of objects of planned activity	Seizure of land[5]	Seizure of farm lands Loss of income	Farmers/ farming Farm staff
Construction works (earthworks, civil works)	Seizure of land Public health and safety Labor market Labor and working conditions Cultural heritage	Changes in the structure of land use Restricting access to resources Growth in traffic and construction equipment Training, advanced training, employment Influx of employees Public order violations Child and forced labor Public health and safety impacts Personnel health and safety impacts Impacts on cultural heritage sites	Farmers/farms Farm employees Population Personnel Cultural heritage sites
Main production activity (electricity generation)	Public health and safety Labor market Labor and working conditions	Accidental situation Income of the population from the development of the enterprise Training, advanced training, employment Personnel health and safety impacts Personnel health and safety impacts	Population Personnel
Provision of the main production activities – repair work, water supply, sanitation, cleaning of the territory and industrial premises	Public health and safety Labor and working conditions	Resource withdrawal – surface water abstraction Growth in traffic and construction equipment Accidental situation Personnel health and safety impacts Personnel health and safety impacts	Population Personnel
Transport and logistics (delivery of materials, fuels and lubricants, other transportation, storage of hazardous materials)	Public health and safety Labor and working conditions	Growth in traffic and construction equipment Accidental situation Personnel health and safety impacts Personnel health and safety impacts	Population Personnel

[5] actual seizure was made as a result of the allocation of a site for the construction of an object.

Heat and power supply	Public health and safety Labor and working conditions	Restricting access to resources Changes in the acoustic regime Accidental situation Personnel health and safety impacts Personnel health and safety impacts	Population Personnel
Ensuring the needs of personnel (including at the construction stage)	Public health and safety Labor and working conditions	Training, advanced training, employment Influx of labor and construction camps (if needed) Public order violation Child and forced labor Personnel health and safety	Population Personnel

2 DISCLOSURES OF INFORMATION AND INTERACTION WITH STAKEHOLDERS

This section reviews the disclosure, consultation and stakeholder engagement activities implemented as part of the ESIA process. The section summarizes the results of these activities and identifies activities planned for future stages of the project life cycle, as detailed in the Stakeholder Engagement Plan.

In particular, the section presents:

- principles for conducting consultations;
- consultation requirements;
- key stakeholders and consultants;
- consulting activities of the project and their results;
- project grievance mechanism.

2.1 Principles for conducting consultations

Early and ongoing consultation, disclosure and meaningful stakeholder involvement are key requirements for projects financed by international creditors. The ESIA builds on the results of the consultation activities included in the Stakeholder Engagement Plan (SEP), designed to guide the stakeholder engagement and disclosure process throughout the life of the project.

SEP is designed to guide public consultation and disclosure activities through to the completion of the ESIA, at all stages of the project life cycle. This is a strategic document for planning meaningful and appropriate consultations with key stakeholders and will be updated periodically as the Project progresses. Stakeholders are defined as individuals and entities that have an interest in, are affected by, or may influence the results of the Project. The specific objectives of the SEP are to provide a consultation strategy for the Project in order to:

- Ensure that all legal and international requirements related to consultations are met.
- Involve the entire range of stakeholders in Project planning to improve design, implementation and monitoring of project activities.
- Encourage open dialogue with affected communities (ACs) in the territories of the Project implementation.
- Inform all interested and affected parties about the progress of the Project.
- Provide a grievance redress mechanism so that ACs can submit grievances and be sure that they will be properly addressed by the Project.

The SEP is based on the principles that community engagement should be free from external manipulation, interference, coercion and intimidation, and conducted based on timely, relevant,

understandable and accessible information. Consultation activities should always be well planned and based on the principles of a respectful and meaningful dialogue.

2.2 Consultation requirements

2.2.1 Review

This section provides an overview of national and international disclosure, consultation and stakeholder engagement requirements applicable to the Project.

As required by the Terms of Reference, the Project must comply with IFC Environmental and Social Policy on Environmental and Social Sustainability, the requirements of the IFC PS, and best international industry practice regarding information disclosure and stakeholder engagement.

These requirements have been taken into account in stakeholder engagement planning and are the basis of the consultation process for the Project, as described below.

2.2.2 National consultation requirements

Public engagement and disclosure of information begin at the earliest stages of Project planning and are regulated as part of the national environmental impact assessment process (hereinafter referred to as the ESIA).

“Regulations on the procedure for holding public hearings of environmental impact assessment projects”, (Appendix No. 3, DCM of the Republic of Uzbekistan No. 541 dated on 07/09/2020) regulates the procedure for holding public hearings on planned, planned or ongoing activities related to a high risk of environmental impact (hereinafter referred to as Category I) and an average risk of impact (hereinafter referred to as Category II).

A summary of the non-technical nature of the proposed, planned, or ongoing economic activity is submitted for public hearings, including:

- brief description of the activity;
- review of options for technological solutions and solutions for the sites of the planned activity;
- brief assessment of the existing environmental and socio-economic conditions;
- brief description of the sources and types of negative impact on the environment associated with the implementation of the project;
- forecast and assessment of possible changes in the state of the environment and socio-economic conditions;
- forecast and assessment of possible design emergencies;
- measures to prevent, minimize, and/or) compensate for negative impacts;
- assessment of possible significant transboundary impact (if applicable).

Also, public hearings can be held on existing activities of I and II impact categories in case of legitimate complaints from individuals or legal entities.

Public hearings imply equal rights for everyone to express their reasoned opinion on the issue under discussion, based on the study of documentary information related to the issue under discussion, and not containing confidential information.

Participants of public hearings are stakeholders, including:

- non-governmental non-profit organizations;
- Citizens’ self-governance bodies;
- mass media (hereinafter referred to as mass media).

Representatives of the authorized bodies for ecology and environmental protection participate in public hearings as observers.

The organizers of public hearings are district (city) khokimiyats.

The results of the public hearing are documented in the protocol of the public hearing, which is signed by the chairman and the secretary.

One copy of the protocol is provided to the customer within one working day, the second copy remains with the organizer of the public hearing.

Information about the public hearing, with a copy of the protocol attached, is sent by the organizer of the public hearing for information to the territorial bodies of the Ministry of Ecology, Environmental Protection and Climate Change.

As a result of the public hearing, a decision may be made on public support for the proposed or planned economic activity in the territory under consideration or on the refusal of public support for the proposed or planned economic activity in the territory under consideration.

Public hearing is considered competent only if at least ten representatives of stakeholders participate in it.

The customer, at the stage of development of the EIS, conducted public consultations and hearings, however, the current approach to public consultation in Uzbekistan does not require the involvement of the general public and is often limited to consultations with authorized government agencies, planning for stakeholder participation and disclosure of information about the Project is based on international industry best practice and applicable international requirements.

2.2.3 International consultation requirements

According to the IFC project categorization, the Project belongs to Category “A”.

The project was assigned “A” category, because the proposed activity is expected to cause significant environmental and/or social impacts, which, at the time of its categorization, are difficult to identify or assess and therefore require a comprehensive environmental and social impact assessment based on broad public participation and disclosure to key stakeholders.

IFC PS-1 on Assessing and Managing Environmental and Social Risks and Impacts includes relevant requirements for disclosure and stakeholder consultation activities. Activities must:

- start early in the project cycle;
- continue on an ongoing basis throughout the project life cycle;
- be based on the early disclosure and dissemination of relevant, transparent, objective, meaningful and easily accessible information in the relevant local language(s) and in a format that is culturally appropriate and understandable to the local population;
- be directed primarily at the affected parties, as opposed to those indirectly affected by the project;
- be free from external manipulation, interference, coercion or intimidation;
- ensure meaningful participation and meaningful dialogue with the public, where appropriate, documented.

IFC’s Access to Information Policy specifies that Category A projects must disclose a summary of the review’s findings and recommendations and include, at a minimum, the following information:

- identification of Performance Standards and applicable mechanisms for dealing with complaints, including a compliance advisor/ombudsman;
- justification for determining the category of the project according to the IFC classification;
- a description of the main social and environmental risks and impacts of the project;
- key measures to limit such risks and impacts, as well as additional measures and

actions that must be implemented to comply with the IFC PS in the implementation of the project;

- electronic copies or links to websites where the ESIA materials are posted;
- additional documents such as action plans, stakeholder engagement plans, resettlement action plans, etc.

2.3 Stakeholder identification

Stakeholders identified by the Project – individuals or groups of individuals directly or indirectly affected by the Project, as well as possibly having their own interests in relation to the Project and/or the ability to influence its results, both positively and negatively.

Stakeholders may include vulnerable or disadvantaged groups of the population or persons living in the Project area of influence, their official and non-official representatives, regional and district government authorities or local self-government bodies, public organizations and special interest groups, academia or educational institutions.

Currently, nine main groups of stakeholders have been identified in relation to the Project. Table 20 presents an analysis of stakeholders, their interests in relation to the Project, as well as proposed methods of information disclosure and interaction with them.

Stakeholder group	Interaction methods													
	Personal meetings	Official correspondence	Disclosure of EIA information	Consultations on land alienation	Publication of the PAS [1]	Publication of personnel policy	Consultations on staff reduction	Interaction with PRS	Interaction with the Head of Environmental Management and Safety Mesuares [2]	Interaction with the head on labor and social issues	Mechanism for receiving complaints from the population	Employee grievance mechanism	Monitoring and reporting	Website of the Client
Directly affected stakeholders														
Residents of Sharaf Rashidov district, Jizzakh city, Jizzakh region areas					x		x	x		x			x	
Local farmers whose farms may be affected as a result of the Project	x		x	x	x			x		x			x	
Makhallas - Gozgontepa, Chalkobad, Sukokli and Olmachi.	x		x		x		x	x		x				
Vulnerable and disadvantaged groups														
people with disabilities					x		x			x			x	
pensioners					x		x			x			x	
poor population							x			x			x	
unemployed					x		x	x		x			x	
women and female-headed households					x		x			x			x	
children under the age of 15							x			x			x	
Workers, being employed workers, workers of third-party organizations and employee representatives														
Local residents					x	x		x	x	x	x	x		x
Employees of “CENGIZ ENERJI SAN. VE TIC A.Ş”					x	x		x				x		x
Construction workers								x			x	x		x
Local suppliers of raw materials and materials	x				x			x		x	x	x		
Local construction contractors	x			x	x			x		x	x	x		x
Other enterprises (to be identified through SEP disclosure)	x				x			x						
Financial organizations														
The lender bank		x	x	x	x	x				x				
Indirectly affected stakeholders														
Local government authorities														
Khokimiyat of Jizzakh city	x	x	x	x	x			x		x				
District khokimiyat (Sharaf Rashidov district)	x	x	x	x	x			x		x				
Local environmental authorities	x		x		x			x		x	x			
Local cadastral authorities	x		x	x	x			x		x	x			
Local labor and employment authorities	x		x		x			x		x				
Department of Cultural Heritage of Jizzakh region			x	x	x			x						
State organizations														
National electric networks		x	x		x			x	x	x				
Ministry of Energy of the Republic of Uzbekistan		x	x		x			x	x	x				
Ministry of Employment and Labor		x	x		x			x	x	x				
Ministry of Foreign Affairs of the Republic of Uzbekistan		x	x		x			x	x	x				
Consultants														

ALFA LINE (Encompass) LLC	x			x	x				x					
Public associations and nongovernmental organizations														
Uzbek-German Forum on Human Rights, International Anti-Slavery Organization, International Labor Rights Forum, Women's Committee of Uzbekistan Others (to be identified through SEP disclosure)					x			x		x				
Trade unions and workers' representatives	x				x	x		x		x	x	x		x
International Labor Organization		x			x			x						
Other stakeholders														
Local newspapers, local radio stations, local TV channels	x			x	x	x		X		x				

Table 20 Project stakeholders and methods of interaction with them

2.4 Activities and results of project consultations

2.4.1 Review

This section describes the activities undertaken during the ESIA process and their results, and briefly describes the activities planned for the remainder of the Project life cycle in accordance with the SEP and the requirements set out in Section 5.2.

2.4.2 Local community representatives

The project initiators will cooperate with local governments in the project area - makhallas. Makhallas are headed by the elected chairmen of the citizens' assembly and are supported by councillors and representatives of the khokimiyats (advisers on issues of the elderly and veterans, youth and women, community security, sports, etc.).

In order to reach members of communities located near the project area who do not have access to the Internet, such as elderly people or poor families, the Customer will maintain contact with makhalla chairmen, collaborating directly on stakeholder engagement activities.

Printed copies of the project documentation and non-technical summary (NTS) will be placed in the makhallas located in the project's area of influence. Representatives of local communities will be invited to encourage the participation of residents in the consultation process, as well as receive feedback from their communities and transfer it to a public relations specialist (PRS). The role and functions of the PRS are discussed in more detail in subsection 5.4.3.

2.4.3 Public relations specialist

The Customer's organization appointed a specialist responsible for public relations (Community Liaison Officer (CLO), whose responsibilities include ensuring at all stages of the Project constructive and meaningful interaction with local residents who are affected by or interested in the implementation of the Project.

PRS will function throughout the entire life cycle of the Project. PRS is responsible for implementing the SEP activities. In addition, PRS is responsible for organizing and holding meetings with stakeholders, taking minutes of them, as well as ongoing interaction with the population in the Project area of influence.

Manzure ABDUKARIMOVA has been appointed as the person responsible for interaction with the public, in particular for receiving, registering and working with requests and complaints from citizens at the stage of project preparation, during the construction period and at the operation stage.

2.4.4 ESIA Consulting and Disclosure

Identification of Project stakeholders was initiated at the stage of preparation of the Scoping report based on the results of the inspection of the site and adjacent areas, desktop studies and initial consultations with regional and local authorities and local self-government bodies.

In October 2021, a series of consultations were held with the following Project stakeholders:

- Khokimiyat of Jizzakh city;
- Khokimiyat of Sharaf Rashidov district, Jizzakh region;
- Department of Ecology and Environmental Protectionof the city of Jizzakh and Sharaf Rashidov district;
- The Center for sanitary and epidemiological supervision of the city of Sharaf Rashidov

district;

- Department of Cultural Heritage of Jizzakh region
- Employment Center of Sharaf Rashidov district;
- Makhallas - Gozgontepa, Khalkobad, Sukokli and Olmachi.

Consultations are used to initially disclose information about the Project, explain the ESIA procedure, request baseline data, identify related projects, stakeholders and their interests, and understand concerns about the Project.

It was found that the health and safety of the population, providing vulnerable and unprotected segments of the population the opportunity to take advantage of the positive effects of the Project are of concern.

The second stage of the consultation was carried out in May 2024 during the basic social studies, in particular:

- Focus groups (women, youth, residents of the project area) with representatives of Gozgontepa, Khalkobad, Sukokli and Olmachi makhallas. These makhallas were identified at the stage of initial assessment of the project during consultations with the administrative bodies and responsible representatives of the combine, as populated areas within 1000-2000 m from the borders of the complex;

- In-depth interviews with farmers affected by the project, during construction (checking procedures for land alienation, compensation payments);

- In-depth interviews with chairmen of makhalla committees located in the Project impact area.

Table 21: provides a list of all the focus groups conducted.

Item	Date	Region	District /makhalla	Number of participants	Participants
1.	02/07/2024	Jizzakh region	Mahalla "Olmachi" Sharof Rashidovsky district	15	Mahalla residents, youth
2.	03/07/2024	Jizzakh region	Mahalla "Khalkobad" Sharof Rashidovsky district	20	Mahalla residents, women
3.	04/07/2024	Jizzakh region	Mahalla "Pastly Sukokly" Sharof Rashidovsky district	22	Mahalla residents, women
4.	05/07/2024	Jizzakh region	Mahalla "Gazgontepa" Sharof Rashidovsky district	18	Mahalla residents, youth
Bcero				**75**	

Table 21: List of focus groups

A brief description of information disclosure measures implemented in May-September 2024 is presented in Table 22.

Measures	Result
Publication of the Report	Project documents are published in Russian and English. Disclosure was made on the website of the Customer, within ten days from the date of publication of the Scoping Report. The website provides contact information for the Customer's responsible representative (e-mail, address, telephone number). The Scoping Report has also been sent to the chairmen of Makhalla committees in printed form.
Receiving comments and suggestions on the Scoping Report	The collection of comments and suggestions lasted until May 30, 2024. The customer has confirmed to the Consultant that there were no comments or suggestions from stakeholders during the disclosure period.
Publication of the SEP report	Project documents are published in Russian and English. Disclosure of information is made on the Client's website within thirty days from the date of publication of the SEP report. The website provides contact information for the Customer's responsible representative (e-mail, address, telephone number).
Receiving comments and suggestions on the SEP report	The collection of comments and suggestions was open until September 2, 2024. The customer confirmed in writing to the Consultant about the absence of comments or suggestions from stakeholders during the period of disclosure of the report.
Public presentation of the final results of the ESIA	The Client, with the assistance of the Consultant, provided information on the Project and the results of the ESIA, as well as proposed mitigation measures to mitigate potential negative impacts. At public presentations, a feedback box was installed and feedback forms were provided, allowing participants to comment and make suggestions, including anonymously.

Table 22: Information disclosure measures

2.4.5 Consultations planned during the project implementation period

The project SEP describes the ongoing engagement with stakeholders throughout the project life cycle, including the construction and operation phases. Activities include consultations as needed with makhalla representatives, disclosure of information to the local population at key stages of the project, such as the start and end of construction, regular website and social media updates, SEP updates, and annual project reporting.

2.5 Programs for the involvement of the local population and the assets of the local population

Currently, the project promotes sustainable engagement with local communities to align their interests and turn the community into a direct stakeholder.

To increase the potential for interaction with the local community, the Customer is recommended to:

- Communicate the most complete information about the project activities on time to all Stakeholders.
- Develop and implement a transparent recruitment procedure among the residents of the region (including women, youth, representatives of vulnerable groups).
- Prepare and implement a social investment program based on regular consultations with stakeholders.
- Assist the participation of small and medium-sized businesses in the project's activities

and implement social partnership measures in the region of presence.

2.6 Project Grievance Mechanism

Draft defines a complaint as an actual or perceived problem that may give rise to a complaint. As a general policy, the Customer will actively work to prevent the causes that give rise to complaints through the implementation of mitigation measures (as defined in the ESIA and ESMP) and ongoing interaction with community relations specialists.

Anyone will be able to file a project activity grievance if they believe that a practice has a negative impact on them, the community, the environment, or the quality of life. Stakeholders can also submit their comments and suggestions.

2.7 Confidentiality and anonymity

The Customer will take measures to ensure confidentiality (upon request) and guarantee anonymity in the preparation of annual reports. Disclosure of personal data of individuals will be carried out only with their consent.

Investigations will be conducted with respect for the injured party and confidentiality. The injured party will have to recognize the need to disclose personal data in certain situations, and the Customer's representatives will identify such situations and request appropriate consent to continue the investigation and resolve the situation.

2.8 Complaint reporting and resolution

The Grievance Redress Mechanism, detailed in the SEP, is a formalized tool for receiving, recognizing, investigating and addressing complaints, grievances and concerns from affected communities and individuals, as well as other stakeholders.

The purpose of this mechanism is to offer predictable, transparent and credible processes for all parties that produce relatively inexpensive, fair and efficient results. It also aims to ensure a gender sensitive, inclusive and culturally appropriate process that will be accessible to all members of the community.

Effective stakeholder engagement aims to build trust and maintain a constructive relationship with communities and stakeholders, foster a positive perception of the Project and contribute to its successful development and implementation.

2.8.1 National Complaint Resolution Requirements

Management of public complaints and claims in Uzbekistan is carried out on the basis of an established mechanism in accordance with the Law of the Republic of Uzbekistan No. LRU-378 dated on 03/12/2014 No. LRU-378 dated on 03/12/2014. Stakeholders can submit their complaints through the Internet portal https://my.gov.uz/ru. In addition, since 2017, so-called "Public Consultation Points" have been functioning in each region, district, city and village, where people can come with their complaints and appeals.

The Ministry of Employment and Labor Relations of the Republic of Uzbekistan operates a feedback mechanism to deal with any labor-related complaints that are investigated by local labor relations inspectors throughout the country. This feedback mechanism is available through the hotline number
+998 71 200-06-00.

The Federation of Trade Unions also receives and investigates work related complaints through the hotline number (0-371) 200 10 92.

To achieve national compliance, the grievance redress mechanism under the project

will not prevent affected persons from contacting national/state legal systems to resolve grievances at any stage of the grievance redress procedures. Affected parties may apply to the court at any stage of the complaint or appeal process

2.8.2 Handling requests and reporting

The Customer has its own Internet resource https://cengizenerji.com.tr/?lang=en/ and a separate link for disclosing information about the Project https://cenergo.uz/environment-and-social/, as a tool through which the public can submit complaints and appeals. Complaints and appeals can also be sent directly to the CLOs. CLO data are shown in Table 23.

The main stages of work with complaints and appeals include: receiving and registering, categorizing, investigating, preparing a response, demands/appeals, providing a response and closing a complaint / appeal.

Receipt/registration: Complaints and appeals will be recorded in a formal complaint registration system maintained by the CLO.

Complaints can be submitted in writing by filling out a special form (provided in the SEP Appendix), by contacting the CLO directly, through a local government representative, or electronically through the Customer website. Contact information of the CLO will be provided in the Project information materials, e.g., in the non-technical summary.

Categorization: all incoming requests will be classified by the CLO in accordance with the criteria as indicated in Table 22.

Investigation: In cases where an investigation is required, the appropriate employees of the Customer and external organizations will provide the necessary assistance in this. The CLO in conjunction with the Customer's management will form an investigation team to include specific specialists whose qualifications are appropriate to the subject matter of the appeal.

The purpose of the investigation will also be to determine the nature of the event that gave rise to the request, i.e. whether it was an isolated event or whether it may recur. During the investigation, the necessary measures, procedures will be identified and implemented, the necessary equipment will be allocated or training will be conducted in order to eliminate the incident and prevent its recurrence.

Response: The CLO shall give the complainant a written (or, if it is difficult for the complainant to understand the written text, verbal) explanation of the complaint procedure, its results, the actions to be taken to address the causes of the complaint, as well as the work being done on the issue to ensure compliance with relevant environmental and social management systems. In certain cases, the CLO will monitor how satisfied the applicant is with the decision or action taken.

Table 22: Criteria for classifying complaints/appeals

Criteria	Level of risk (to health, safety, or the environment)	Resolution
Low	None or low	The complaint may not be related to the Project; the received appeal may be a comment or a request. PRS recognizes the complaint within 3 days and conducts an investigation, documents its results and gives a response within 14 days from the date of receipt of the complaint

Medium	Potential Risk and Single Incident	PRS recognizes the complaint within 3 days. The CLO acknowledges the complaint within 3 days. The Site Manager or Health and Safety Manager, if necessary, may decide to suspend work until the investigation is completed, in order to determine the necessary measures to correct the violation. PRS responds to the appeal within 14 days from the date of receipt of the complaint. Measures to eliminate the violation can be simple, quick, for example, related to changing the procedure, and low-cost
High	Probable risk and possibility of recurrence	PRS recognizes the complaint within 3 days and involves the project manager in the formation of a special group for prompt investigation and settlement of the complaint. The CLO responds to the complaint within 14 days from the date of receipt of the complaint. If more time is required to resolve the complaint, the PRS informs the complainant of this within 14 days from the date of receipt of the complaint and sends a response within 30 days. If necessary, the response can be in the form of a press release.

Closure: in the registration log, the complaint is closed as follows:

- Settled. Response communicated, agreed to, and/or implemented.
- Not settled. The complainant disagrees with the decision and has applied to other organizations for settlement.
- Denied. The applicant cannot be contacted and cannot be traced.

CLO will report on the activities of the treatment of appeals monthly in the preparatory stage, weekly during construction and twice a year during the operational phase, excluding personal data of applicants in order to protect confidential information and guarantee anonymity.

This procedure will be free of charge and excludes any prosecution of persons affected by the Project or other interested parties. The proposed procedure for dealing with appeals is schematically presented in the Appendix to the SEP.

Manzure ABDUKARIMOVA has been appointed responsible for considering appeals from citizens and other stakeholders. Comments and appeals should be sent to the address below (preferably in writing by filling out the complaint/appeal form provided in EPA Appendix).

Table 23: Public Relations Specialist

Name-Surname: Manzure ABDUKARIMOVA (Female)
Tel: +998902646844
E-mail: Manzure.ABDUKARIMOVA@cenergo.uz

2.8.3 Reporting of complaints and appeals

The CLO will be responsible for preparing the following reports:

- monthly reports on received complaints to the management of the Customer at the stage of preparation of the Project;
- weekly reports on complaints received by the management of the Customer at the construction stage;
- semi-annual reports on received complaints to the management of the Customer at the stage of operation;
- annually provide information on complaints received to international creditors as part

of the annual reporting on environmental and social aspects of the Project implementation.

2.8.4 Annual reporting

During the term of the loan agreement, the Customer will prepare an annual report to international lenders, which will summarize information on the implementation of environmental protection and labor protection requirements, the progress of implementation of the ESMP, the activities of the PRS and the complaints received from the population, as well as updates to the SEP.