REPORT

AZERENERJI JOINT-STOCK COMPANY

Azerbaijan Scaling-Up Renewable Energy Project

(AZURE Project)

(P505208)

Draft

Environmental and Social Scoping Report

August 2024

"Azerbaijan Scientific-Research and Design-Prospecting Energy Institute"

Azerbaijan Scaling-Up Renewable Energy Project

Environmental and Social Scoping Report – Draft Report

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Table of Content

ANNEXES

List of Tables

List of Figures

Abbreviations

Abbreviation	*Definition*
ACSR	*Aluminium Conductor Steel-Reinforced*
ACWA	*Association of Clean Water Administrators*
ADB	*Asian Development Bank*
AERA	*Azerbaijan Energy Regulatory Agency*
AR	*Azerbaijan Republic*
AREA	*Azerbaijan Renewable Energy Agency*
AZN	*Azerbaijani manat*
AZURE	*Azerbaijan Scaling-up Renewables Energy*
BAT	*Best Available Techniques*
BMP	*Biodiversity Management Plan*
CESMP	*Environmental and Social Management Plan*
CITES	*Convention on International Trade in Endangered Species of Wild Fauna and Flora*
CJSC	*Closed Joint-Stock Company*
dB	*Decibel*
E&S	*Environmental and Social*
EBRD	*European Bank for Reconstruction and Development*
EBRD PRs	*European Bank for Reconstruction and Development Performance Requirements*
EHS	*Environmental, Health and Safety*
EHSGs	*Environmental, Health, and Safety Guidelines*
EIA	*Environmental Impact Assessment*
EM	*Electromagnetic*
EMF	*Electro Magnetic Fields*
EMP	*Environmental Management Plan*
ESCP	*Environmental and Social Commitment Plan*
ESDD	*Environmental Social Due Diligence*
ESIA	*Environmental and Social Impact Assessment*
ESMP	*Environmental and Social Management Plan*
ESMS	*Environmental and Social Management System*
ESS	*Environmental and Social standards*
EU	*European Union*
EUNIS	*European nature information system*
FEZ	*Free Economic Zone*
FFI	*Fortescue Future Industries*
GBV	*Gender-based Violence*
GCC	*Grievance Commission*
GDP	*Gross Domestic Product*
GHG	*Greenhouse Gas*
GIIP	*Good International Industry Practice*
GIS	*Geographical Information System*

Abbreviation	***Definition***
GM	*Grievance Mechanism*
GoA	*Government of Azerbaijan*
GRM	*Grievance Redress Mechanism*
H&S	*Health and Safety*
HDV	*Heavy Duty Vehicles*
HGVs	*Heavy Goods Vehicles*
HPP	*Hydro Power Plant*
HPS	*Hydro Power Station*
IA	*Implementation Agreement*
IAIA	*International Association for Impact Assessment*
IAPs	*Interested and Affected Parties*
IAQM	*Institute of Air Quality Management*
IBA	*Important Bird and Biodiversity Area*
IBRD	*International Bank for Reconstruction and Development*
ICNIRP	*International Commission on Non-Ionizing Radiation Protection*
IDPs	*Internally Displaced Persons*
IEEE	*Institute of Electrical and Electronics Engineers*
IFC	*International Finance Corporation*
IFC PSs	*International Finance Corporation Performance Standards*
IFIs	*International Finance Institutions*
ILO	*International Labour Organisation*
IPA	*Important Plant Area*
IR	*Involuntary Resettlement*
IRENA	*International Renewable Energy Agency*
IUCN	*International Union for the Conservation of Nature*
IWRM	*Integrated Water Resources Management*
JSC	*Joint-Stock Company*
LAL	*Land Acquisition Law*
LLC	*Limited Liability Company*
LMP	*Labour Management Procedure*
MENR	*Ministry of Ecology and Natural Resources*
MES	*Ministry of Emergency Situations*
MoE	*Ministry of Energy*
MW	*Megawatt*
NDC	*Nationally Determined Contribution*
NGO	*Non-Governmental Organization*
NP	*National Park*
O&M	*Operation & Maintenance*
ODU	*Open Distribution Units*
OE	*Owner's Engineer*
OHL	*Overhead Transmission Line*
OHS	*Occupational Health & Safety*
OJSC	*Open Joint-Stock Company*
PBA	*Priority Butterfly Area*
PIU	*Project Implementation Unit*

Abbreviation	***Definition***
PP	*Power Plant*
PPEs	*Personal Protective Equipment*
RAP	*Resettlement Action Plan*
RE	*Renewable Energy*
RESSD	*Regional Electricity Service and Supply Departments*
RoW	*Right of Way*
RPF	*Resettlement Policy Framework*
SCADA	*Supervisory Control and Data Acquisition*
SEA/SH	*Sexual Exploitation, Abuse, and Harassment*
SEEA	*State Ecological Expertise Agency*
SEP	*Stakeholder Engagement Plan*
SIA	*Social Impact Assessment*
SLCC	*State Land and Cartography Committee*
SOCAR	*State Oil Company of Azerbaijan Republic*
SPP	*Solar Power Plant*
SPS	*Safeguard Policy Statement*
SS	*Substation*
TOR	*Terms of Reference*
TPP	*Thermal Power Plant*
UN	*United Nations*
UNDP	*United Nations Development Programme*
UNECE	*United Nations Economic Commission for Europe*
UNEP	*United Nations Environment Programme*
USD	*United States Dollar*
VRE	*Variable Renewable Energy*
WAMS	*Wide Area Monitoring System (WAMS)*
WB	*World Bank*
WFD	*Water Framework Directive*
WH	*World Heritage*
WHO	*World Health Organization*
WHS	*World Heritage Site*
WPP	*Wind Power Plant*
WWF	*World Environment Fund*

1. INTRODUCTION

This Report presents the findings of the scoping phase of the Environmental and Social Impact Assessment (ESIA) process of the proposed renewable energy infrastructure project (Project) which comprises the Azerbaijan Scaling Up Renewable Energy Project to be funded by the World Bank (WB), and respective facilities to be funded by the Government of Azerbaijan GoA, as specified in the chapters below. The Project is being prepared and will be implemented by the Azerenerji JSC. The Project forms part of the Azerenerji's Strategic Development Plan[1]. This plan sets out the strategic importance of the proposed Project driven by the need to improve the resilience of the network and to connect a number of new energy generation projects. The objective of the Project is to enable the integration of variable renewable energy to Azerbaijan's national grid and decarbonize the country's electricity system.

The GoA, through the state-owned enterprise for electricity power generation and transmission Azerenerji, has planned for grid readiness for the integration of 1 GW of solar and wind energy by 2027. First, integration of the Banka (315 MWac) and Bilasuvar (445 MWac) SPPs (totalling 760 MWac) to the grid will take place by April 2026, followed by grid-connection of 240 MW Absheron WPP by October 2026 with parallel reinforcement works of 500 kV and 330 kV network.

The Project will be financed jointly by GoA and the WB (see Figure 1.1) where the GoA will finance the construction of 330 KV part of 500/330/10 kV Navahi substation, connection of Bilasuvar and Banka solar power plants to the Navahi substation with 330 kV lines and to Absheron substation with 500 kV line, temporarily operating at 330 kV, whereas the WB will finance (i) supply and installation of equipment for 500 and 10 kV part of Navahi (2x 500 MVA) substation; (ii) expanding the 500 kV bays at Absheron and Azerbaijan TPP substations; and (iii) expanding 330 kV bays at Mingachevir HPP, Gobu PP and Alat substations. The WB's investments will also cover strengthening the transmission grid and enhancing system operation and supporting the project implementation and capacity building. The construction works financed by GoA and the WB will be implemented in parallel with giving priority to early completion of 330 kV transmission grid.

The project is located 90 km southeast of Baku and 30 km from the Alat Free Economic Zone. In parallel, the AZURE project will support Azerenerji to enhance system operation and control to integrate planned VRE over the next 10 years. This includes investments in SCADA upgrades, control systems, and battery energy storage.

[1] *Azerenerji Strategic Development Program for 2020 – 2030 (later updated for 2024-2034) developed by McKinsey*

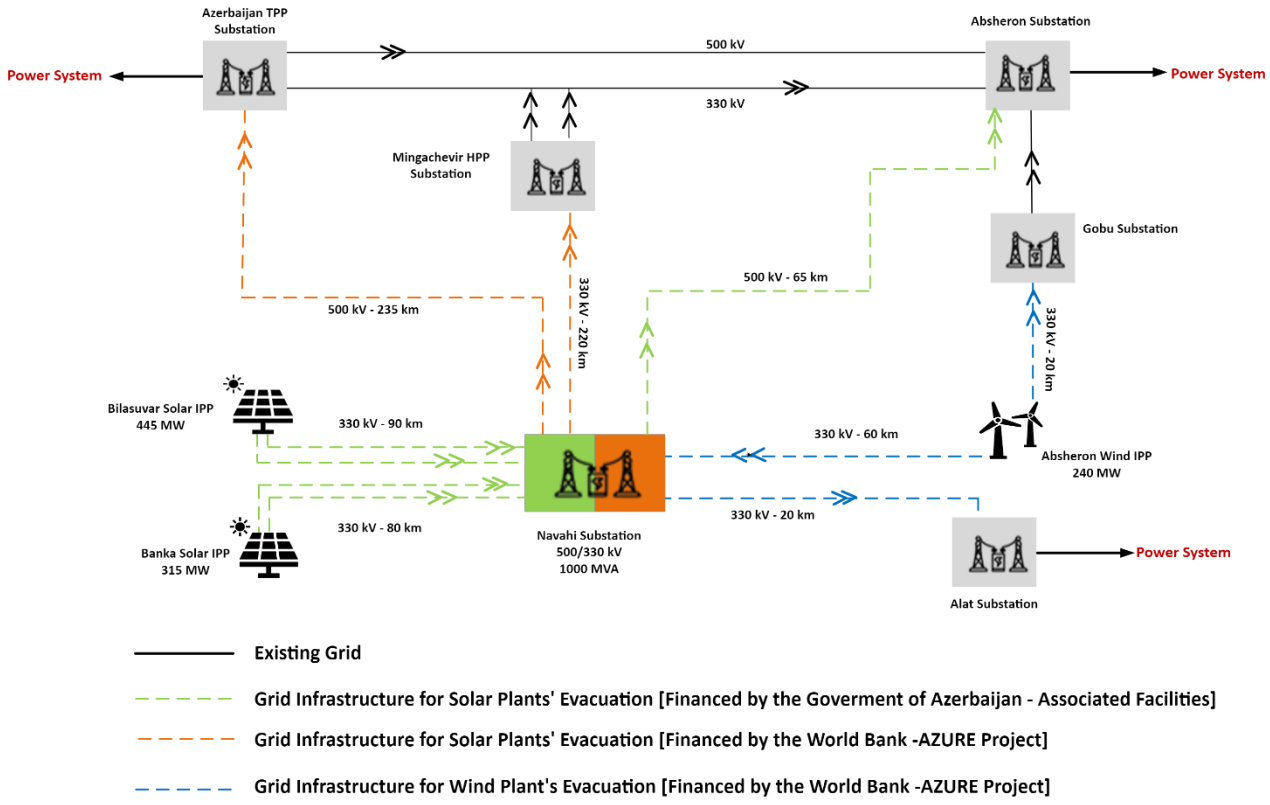


Figure 1-1: *Overview of the AZURE Project scope; GoA and WB financing*

The GoA has prioritized the advanced implementation of the Project. Specifically:

Government funding (parallel financing) will comprise

- Construction of 330 kV part of 500/330/10 kV 2x500 MVA Navahi substation

(i) Construction of 500 kV single-circuit Absheron SS - Navahi SS OHL - 65 km
(ii) Construction of 330 kV double-circuit Bilasuvar SPP - Navahi SS OHL - 90 km
(iii) Construction of 330 kV double-circuit Banka SPP - Navahi SS OHL - 80 km
(iv) Installation of 330 kV slot at Absheron substation

World Bank funding (AZURE) will comprise

Component 1

Strengthening and development of renewable energy transmission network infrastructure

Transmission Lines	
(i)	Construction of 330 kV single-circuit Mingachevir HPP - Navahi SS OHL - 220 km
(ii)	Construction of 500 kV single-circuit Azerbaijan TPP - Navahi SS OHL - 235 km
(iii)	Construction of 330 kV single-circuit Alat FEZ SS - Navahi SS OHL - 20 km
(iv)	Construction of 330 kV single-circuit Absheron WPP - Navahi SS OHL - 60 km

(v) Construction of 330 kV single-circuit Absheron WPP - Gobu ES OHL - 20 km

Construction and extension of high voltage substations
Substations

(i)a Supply and Installation of 500 kV side equipment for 500/330 kV Navahi Substation
(i)b Supply and Installation of two 500kV transformers for 500/330 kV Navahi Substation
(i)c Supply and Installation of Reactor for 500/330 kV Navahi Substation
(ii)a Installation of 500 kV slot (line bay) at Azerbaijan TPP
(ii)b Expansion on the 500 kV side of Absheron substation
(iii)a Expansion of the 330 kV bay at Mingachevir substation
(iii)b Expansion on 330 kV side at Gobu PS

Component 2

Management and monitoring of power systems

(i) Upgrading SCADA at central control room, debugging and purchasing of new software

Control of power systems

(ii) Creation of a monitoring system for the power plants (application of Wide Area Monitoring System (WAMS) with PMU characteristic devices)

BESS

(i) Construction of 100 MW /100 MWh (TBC) battery energy storage system and a management module for BESS/SCADA control

Component 3

Consultant Services

Engagement of Supervision Engineer (Component 1 and BESS)

External audit of project accounts (for three years)

Preparation of Purchaser's/Employer's Requirements + procurement documents preparation for SCADA/EMS and WAMS monitoring systems + Supervision services and Capacity Building (Training and Technical Support)

Preparation of Purchaser's/Employer's Requirements + procurement documents preparation for BESS

The proposed project will finance a Supervision Engineer to assist the PIU with (i) overall project management and daily supervision of the procurement, design, construction and preparation for operation and maintenance of the complete investment, including the full transmission line, construction and upgrade of substations; and (ii) supervision and monitoring of the implementation of the Environmental and Social Management Plans (ESMPs) and the Resettlement Action Plans (RAPs), based on an agreed monitoring plan. The project operations manual will reflect the required reporting procedures by the PIU to the WB, including monthly flash status updates during the procurement and construction phases. These updates will offer concise, timely information on the project's progress, addressing key milestones, potential issues, and any adjustments to the timeline.

1.1 ESIA Schedule and Team

ESIA schedule for the Project is presented below. Different timeline is applied to sub-projects of the AZURE project funded by GoA and WB respectively.

Table 1-1: ESIA schedule

No	Stages	Activities	Timeline (indicative)
1	Scoping for entire Project	Identifying the key issues, stakeholders, and potential impacts that need to be considered in the assessment.	July2024
2	Public Consultation for Scoping Report	Identifying key issues, understanding stakeholder concerns, and shaping the project's direction.	July_August 2024
3	Baseline Data Collection	Gathering information about the existing environmental and social conditions in and around the project area. This may include data on air quality, water resources, biodiversity, cultural heritage, socio-economic conditions, and more.	May-July 2024
4	Impact Assessment for GoA funded parts: 500/330/10 kV Navahi SS Banka-Navahi OHL (90 km) Bilasuvar – Navahi OHL (92 km) Navahi – Absheron OHL (65 km)	Using the baseline data, assessing the potential impacts of the project on the environment and local communities. This may include evaluating both direct and indirect effects, as well as short-term and long-term impacts.	June-July 2024
5	Mitigation and Management Measures	Based on the impact assessment, recommend measures to mitigate negative impacts and enhance positive ones. This could involve changes to the project design, implementation of environmental management plans, community engagement strategies, etc.	July 2024

7	Draft ESIA Report for WB funded parts	A draft report summarising the results of the assessment and proposals for mitigation and management measures is currently being prepared.	August 2024
8	Public Disclosure of ESIA *Impact assessment*	In terms of both GoA and WB requirements the draft ESIA report will be disclosed and open for public consultation, where stakeholders such as local communities, NGOs, government agencies, and experts are invited to provide feedback and input. Public consultation will inform each stage of ESIA development. The draft ESIA will be finalized based on the feedback received from the public consultation meetings to be held in July - August 2024	August 2024
9	Final ESIA Report	The draft ESIA report will be finalised taking into account the feedback received during the public consultation. The report will address the comments received and revise the assessment or proposed measures as appropriate.	August-September 2024
10	Approval and Implementation	The final ESIA report will be submitted to the relevant regulatory	September 2024
11	Monitoring	Monitoring of ESIA implementation and management of risks throughout the project implementation	September 2024 – April 2027

Table below presents the list of experts involved in the Scoping Report process for the Project.

Table 1-2: ESIA team for Scoping Phase and GoA funded parts.

Expert name	**Title**
Yusif Gayibov	Team leader
Amin Mammadov	Environmental expert
Kamran Jabrayilov	Environmental expert
Ilaha Ilyasova	Social Safeguard/Resettlement expert

Ziba Guliyeva	Stakeholder engagement expert

For development of ESIA for WB funded parts a specialized company have been engaged by Azerenerji-PIU. The Draft of ESIA is expected to be submitted by mid August, 2024.

1.2 Purpose of the Scoping Report (Report)

Scoping covers all parts of the Project, including GoA and WB funded parts, while ESIAs/ESMPs are being prepared separately for Bank and GoA funded parts respectively. In particular, an ESIA has been prepared for the GoA funded parts, covering the construction of 330 kVof 500/330/10 kV Navahi SS and three OHLs, i.e. (i) construction of 500 kV single circuit Absheron SS - Navahi SS OHL - 65 km, (ii) construction of 330 kV double circuit Bilasuvar SPP - Navahi SS OHL - 90 km, (iii) construction of 330 kV double circuit Banka SPP - Navahi SS OHL - 90 km.

Likewise, the ESIA is currently under preparation for the WB funded parts, covering construction of the following components:

- Construction of 330 kV single-circuit "Mingachevir HPP - Navahi SS" OHL - 220 km
- Construction of 500 kV single-circuit "Azerbaijan TPP - Navahi SS" OHL - 235 km
- Construction of 330 kV single-circuit "Alat FEZ SS - Navahi SS" OHL - 20 km
- Construction of 330 kV single-circuit "Absheron WPP - Navahi SS" OHL - 60 km
- Construction of 330 kV single-circuit "Absheron WPP - Gobu ES" OHL - 20 km
- Installation of 500 kV substation at "Azerbaijan" TPP
- Expansion on the 500 kV side of "Absheron" YS
- Expansion of 330 kV SS at "Mingachevir SES".
- Expansion on 330 kV side at Gobu PP

The scope of the ESIA is defined at an early stage in the ESIA process through a scoping study, the results of which are documented in this report. This scoping stage in the process has the following objectives:

- Establish the already known environmental and social baseline conditions in the Project Area.
- Identify potential environmental and social impacts associated with the development of energy infrastructure projects in the Project Area and present an initial assessment of their potential significance.
- Identify any studies or surveys that are required to further understand the baseline conditions in the Project Area, inform the assessment of impacts and determine suitable RE development areas.
- Engage with stakeholders to inform them about the ESIA and allow them to inform the scoping stage and ESIA.

The scoping stage of the ESIA is implemented as follows:

- Initial review of the Project Area, proposed development plans and typical RE project concepts and designs;
- Impact identification exercise to identify potential impacts, their potential significance, the necessary baseline information required, level of assessment and assessment methodology;

- Documentation of the scoping review in a draft scoping report for provision of preliminary information to key stakeholders;
- Undertaking initial stakeholder engagement through a scoping meeting with identified key stakeholders;
- Revision and updating of the draft scoping report according to the findings of the scoping meeting and overall scoping process to determine the final scope of the ESIA study; and
- Disclosure of the scoping report to key stakeholders and to the public (via the websites of Azerenerji and the WB, websites of local executive power offices).

The scoping determines which impacts are likely to be significant and should become the main focus of the ESIA. Scoping also identifies data availability and data gaps. The scoping process determines the appropriate spatial and temporal scopes for the assessment and suggests suitable survey methodologies.

1.3 Structure of this Report

This document represents an Environmental and Social Impact Assessment (ESIA) Scoping Report for the proposed sub-projects of the Project, as stated below in Chapter 2 'Project Description'.

The Report has been prepared as part of the ESIA process in accordance with the requirements of environmental and social standards (ESSs) of the World Bank which will provide lending for the implementation of AZURE (an integral part of the Project). The Project is to be developed further through reference design stages (i.e. preliminary design and detailed design) which will inform the detailed environmental and social impact assessment (ESIA) and Management Plan (ESMP) and will be basis for obtaining permissions from the relevant Azerbaijan authorities.

The Report will also inform the process of early engagement with the key relevant stakeholders and help identify specific potential environmental and social impacts.

The Scoping Report is organized as follows:

- Chapter 1 provides an introduction
- Chapter 2 provides the Project description.
- Chapter 3 discusses Project alternatives.
- Chapter 4 identifies and describes national institutional and legal framework and the requirements of the relevant Environmental and Social Standards (ESSs) of the World Bank Environmental and Social Framework (ESF).
- Chapter 5 describes the Environmental and Social Impact Assessment (ESIA) Process and methodology with details on scoping.
- Chapter 6 describes the stakeholder engagement process.
- Chapter 7 describes the Receiving Environment - Characteristics of the Project Area
- Chapter 8 summarizes potential Environmental Social risks and impacts of the Project.
- Chapter 9 provides the conclusion of the scoping that will be used for informing the TOR for the ESIA.
- Chapter 10 lists references.
- Annex A provides list of stakeholders.

- Annex B provides TOR for ESIA that will be prepared based on conclusion of scoping phase.
- Annex C presents consultations with stakeholders.

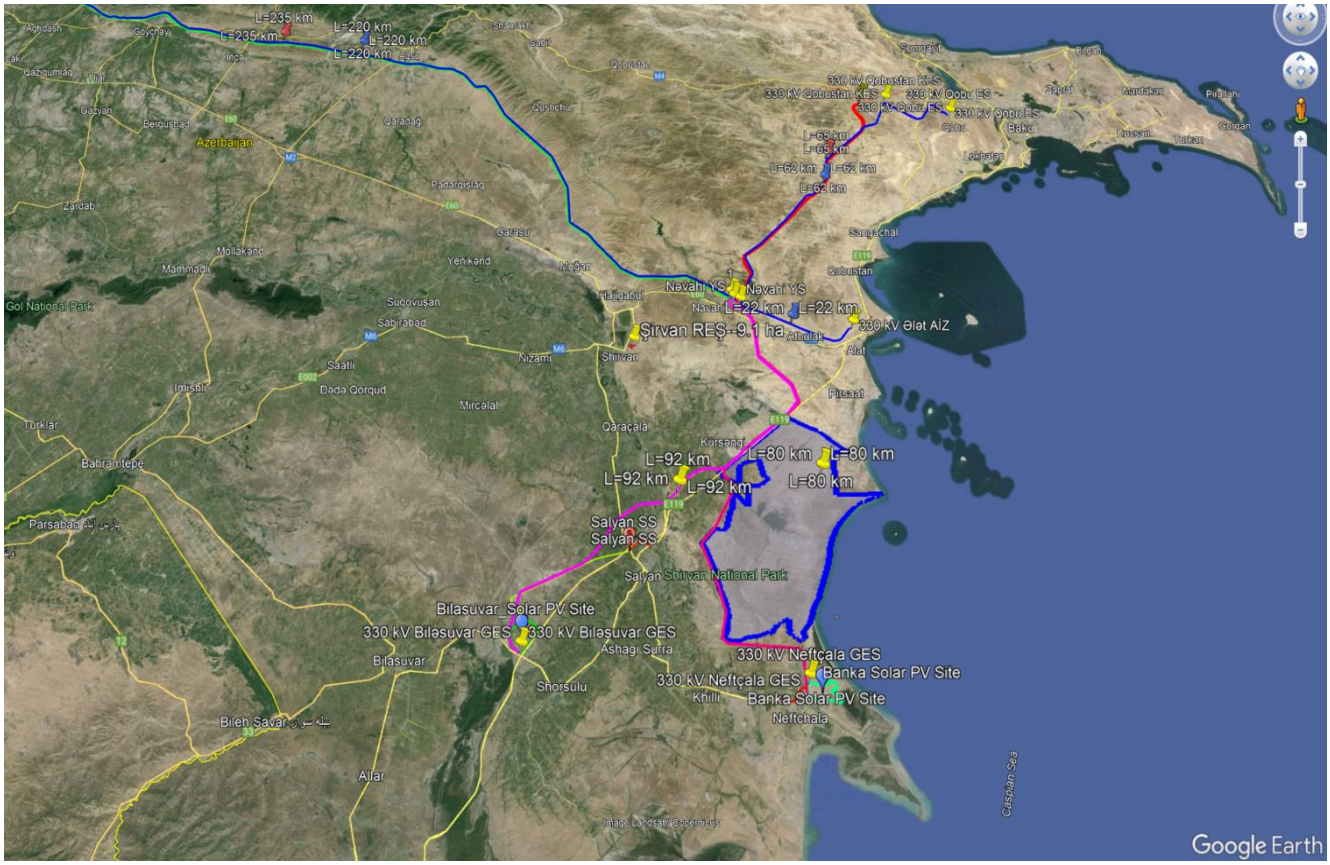
2. THE PROJECT DESCRIPTION

In this Report the Project shall be understood as entire project consisting of GoA funded components and WB funded parts which are described in the following sections of the Report in detail. Hereinafter the WB funded parts will be referred as AZURE Project, whereas GoA funded parts will be referred as GoA funded Project throughout this Report.

2.1 Project Location and Area of Influence/Area of Study

The Project is located in the southern parts of Azerbaijan spreading to 13 regions of the country, namely Neftchala, Bilasuvar, Salyan, Hajigabul, Absheron, Garadagh, Absheron, Shamakhy, Aghsu, Goychay, Ismayilly and Yevlakh regions, and Mingachevir town. Some of the project area is found in the area between Neftchala and Hajigabul regions, along the M60, Baku-Gazakh Road, and along the E119 Baku-Alat-Astara road.

The figure below presents the locality map of the Project's and AZURE's sub-projects, i.e., OHLs and Navahi substation.



Green - 500 kV Navahi-Az. TPP 235 km
Light Blue - 330 kV Navahi-Mingachevir HPP 220 km
Light purple - 330 kV Bilasuvar SPP-Navahi SS 90 km
Dark purple – 330 kV Banka SPP – Navahi SS 80 km
Red – 500 kV Navahi SS – Absheron SS 65 km
Dark blue – Navahi SS – Absheron WPP
Blue – 330 kV Navahi SS – Alat FEZ SS 20 km
Blue – 330 kV Absheron WPP – Gobu TPP 20 km

Figure 2-1: The locality map of the project

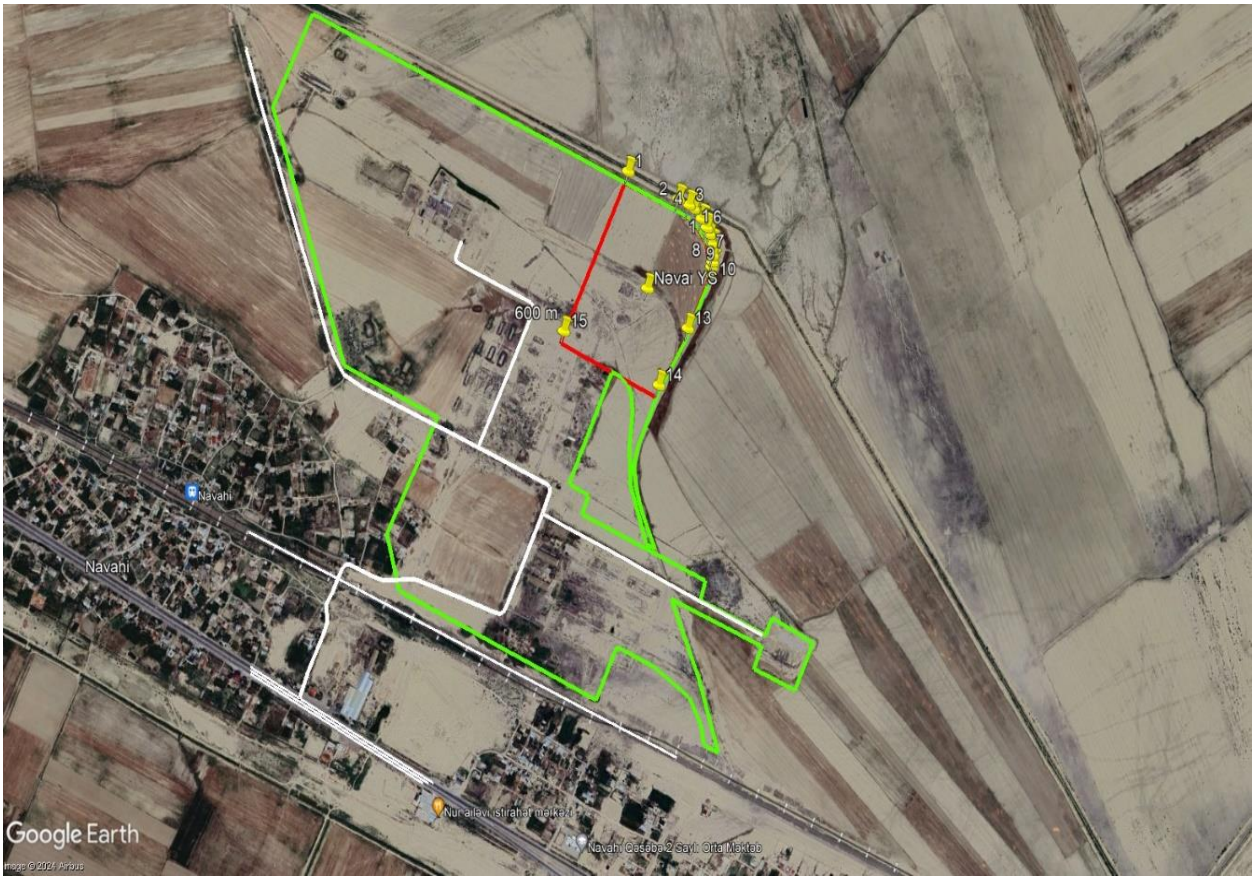


Figure 2-2: The location of the Navahi SS

Coordinates of the corner points of the land plot of 500/330 kV Navahi YS L=500x600m

No	*X*	*Y*
1	*343247,327*	*4432345.314*
2	*343003.699*	*4431906.172*
3	*342461.870*	*4432163.895*
4	*342702.435*	*4432604.652*

Figure below shows the regions of the project area within the country.

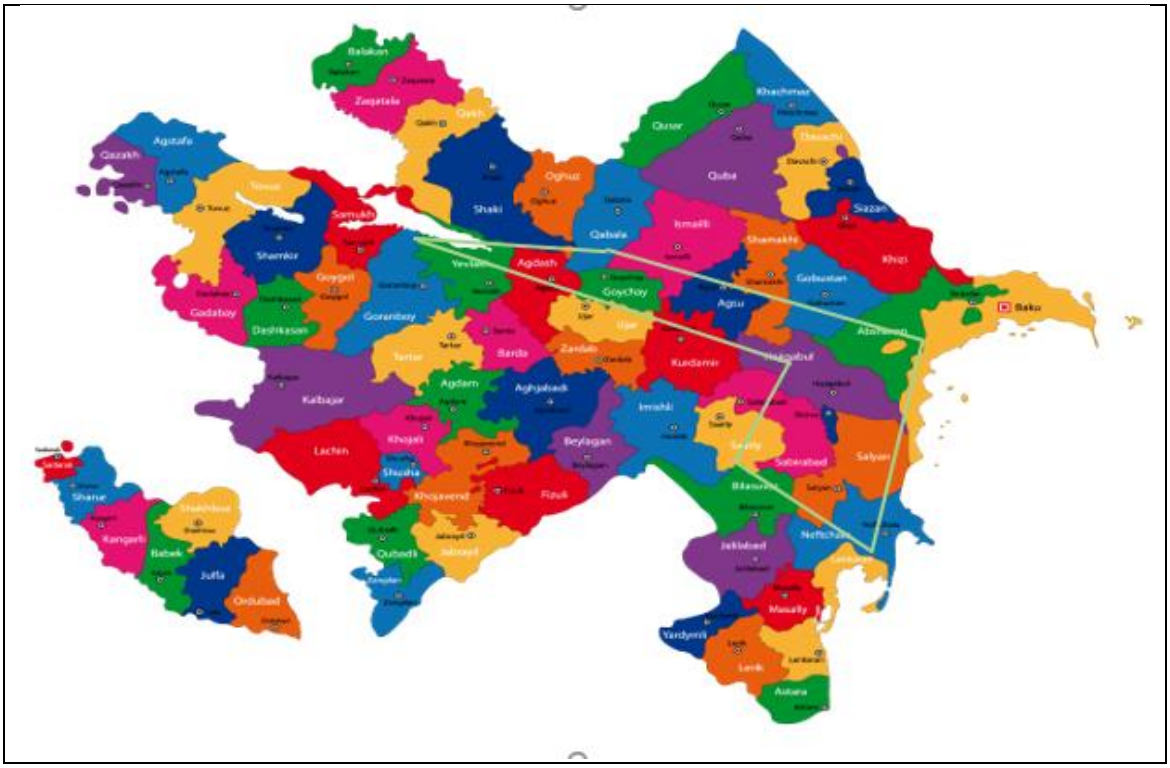


Figure 2-3: Map of Azerbaijan showing locations of project area

2.1.1 ***AZURE Project description***

The AZURE Project will be entirely onshore and will consist of five OHLs, namely (i) 235 km Overhead Line (OHL) 500 kV from Azerbaijan TPP to Navahi; (ii) 220 km, 330 kV OHL from Navahi to Mingachevir HPP (iii) 60 km, 330 kV OHL from Navahi to Absheron wind plant (iv) 20 km, 330 kV OHL from Absheron wind plant to Gobu PP (v) 20 km, 330 kV OHL from Navahi to Alat substation.. In parallel, the project will support Azerenerji to enhance system operation and control to integrate planned VRE over the next 10 years. This includes investments in SCADA upgrades, control systems, and battery energy storage.

The new OHLs are intended to serve two main purposes. First, it will improve reliability of the existing grid. To accomplish this, it will provide necessary backup for existing old lines in the regions that were built in the Soviet period and will help ensure a steady energy supply to west and north-west Azerbaijan and export line to Georgia and Türkiye. Second, the new Navahi substation will increase the capacity for electricity transmission from southern Azerbaijan to western Azerbaijan, and including Alat FEZ, which will further improve reliability of existing supplies. The increase in transmission capacity will be increasingly important as new renewable projects in southern and central parts of Azerbaijan, as well as ambitious renewable energy projects in newly liberated territories will soon begin to supply additional electricity to the national grid.

2.1.2 ***Outline of the Project's Elements***

In wider context, the main elements of the Project and their inclusion in the environmental and social appraisal comprise the following:

To construct and operate a new 500/330 kV substation Navahi, located in Navahi settlement of Hajigabul region (Sub-project 1) via the following interventions:

- SS will consist of 500 kV substation, 330 kV substation and 10 kV substation. It is planned to install 3 autotransformers of 167 MVA in SS (1 in reserve). The SS will accommodate 1 pcs 500 kV Open Switchgear and 1 pcs 300 kV open switchgear.
- It will consist of 1 cistern, pumping station, control discharge point, fire reservoir, household area, drinking water reservoir, rainwater drains, oil traps, 1 pcs. 636 KVA diesel generator as backup energy source, 1 septic tank, external and internal fence. The plan of SS is given in Figure 2-1.
- The project will include internal and external security fencing along the perimeters of the site, including checkpoints.
- Internal traffic roads, cable channels, internal video surveillance system, security systems of the site will be organized. According to the project, 7 overhead lines of 330 kV enter from the Eastern part of SS. The SS also includes 10 kV open switchgear and 2 x 630 KVA YSS to meet its own use demand.

500 kV Open Switchgear and its composition

500 kV Az.TPP OHL, 500 kV Absheron OHL input system to 500 kV AT-2 and 500 kV AT-1 input to the receiving part of 500 kV open switchgear have been designed. 2xAS-500/64 mm2 steel aluminium wire was used in the entrance portals.

500 kV surge arresters are installed at each input. 3 voltage transformers with a capacity of 500 kV are planned.

3150 A 500 kV motor driven, one earthing blade disconnectors have been adopted in each OHL and at the entrance of autotransformers.

In the input 500 kV substation, the following equipment is provided in the project:

- 2 units of 50 kV 3150A; 50 A electric switch;
- 2 units of 500 kV 7-core, 2000/1 kA current transformer;
- 3150 A disconnectors with two 500 kV earthing blade motor drives in each phase;
- 500 kV 2000/1 A, 7-core current transformer in each phase;
- 500 kV 3150 A, 50 kA electrical circuit breaker at the entrance;
- 3159 A disconnectors with a 500 kV earthing blade motor drive;
- 3 x AS-500/64 mm2, 3000 A polyaluminum wire;
- 500 kV motor-driven 3150 A disconnector with two earthing blades;
- 3150 A disconnector with 500 kV earthing blade motor drive (per phase);
- 500 kV voltage transformer (at each input)
- 2xAS-500/64 mm2 polyaluminum connecting wire;
- voltage limiter of 500 kV in each phase;
- the project envisages a 500 kV APQ, as well as a 500 kV reactor with a capacity of SR 3x60 MVAr, a synchronous switching device (with RPH-4).

The project includes 3 АОДЦТН-167000/500/330-У1 type power transformers. (one in reserve) Parameters of autotransformers 167 MVA, 500/330±6x12% / 10.5 kV, connection scheme YHavto/ Δ-0-11.

Between phases:
Fk(%)= BH(YG)-CH(OG)=9.5
BH(YG)-HH(AG)=67.0
CH(OG)-HH(AG)=61.0

The project envisages a bio protection system to reduce the harmful effects of electric and magnetic fields on the working personnel and the environment in the 500 kV APQ. This may be a well-grounded screen-type protection system.

500 kV open switchgear installations and the area around them are protected from the effects of a lightning strike by a lightning rod. It is planned to install 16 lightning rods with a height of H=19.4 m in the area.

The degree of degradation of equipment and others included in 500 kV APQ depends on environmental conditions, technology and regular technological control. The service life of properly designed SS is 30-35 years when the equipment load factor is 80%.

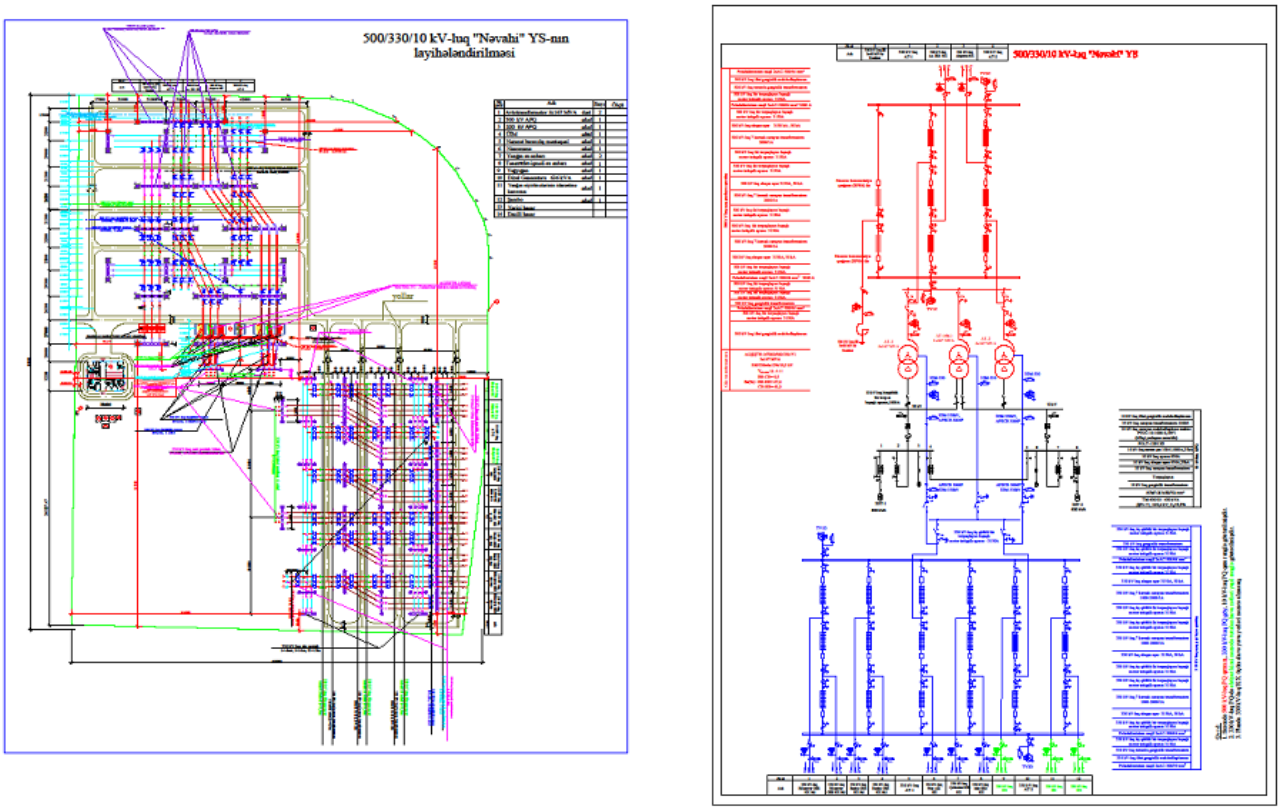


Figure 2-4: Input-output system of 330 kV OHL to SS

330 kV Bilasuvar SPP OHL No. 1;
- 330 kV Bilasuvar SPP OHL No. 2;
- 330 kV Mingachevir HPP OHL;
- For 330 kV OHL (backup)

- 330 kV Banka SPP OHL No. 1;
- 330 kV Banka SPP OHL No. 2;
- Entrance of 330 kV AT No. 1;
- 330 kV Alat FEZ OHL;
- 330 kV Absheron WPP OHL;
- input of 330 kV AT No. 2;
- For 330 kV OHL (backup)
- For 330 kV OHL (backup)
- For 330 kV OHL (backup)

There will be three injection lines going to the Navahi SS and five evacuation lines from the Navahi SS, which are listed as follows:

- 330 kV double-circuit “Bilasuvar SPP – Navahi SS” OHL – 90 km
- 330 kV double-circuit “Banka SPP – Navahi SS” OHL – 80 km
- 330 kV single-circuit “Absheron WPP – Navahi SS” OHL – 60 km
- 330 kV single-circuit “Absheron WPP – Gobu ES” OHL – 20 km
- 500 kV single-circuit “Absheron SS – Navahi SS” OHL – 65 km
- 330 kV single-circuit “Mingachevir HPS – Navahi SS” OHL – 220 km
- 500 kV single-circuit “Azerbaijan TPP – Navahi SS” OHL – 235 km
- 330 kV single-circuit “Alat FEZ SS – Navahi SS” OHL – 20 km

The distance between the towers will be 250m-300m depending on the relief, as the OHLs are single and double circuit. Depending on the relief, the height of the towers also varies between 40-49 meters. The technical and economic reasoning was taken into account in the selection of towers. The anchor takes up to 95 m2-190 m2 of land, depending on the type of support and its resistance in the relief.

Each of the towers is installed on 4 bases. Figure 2.2 shows an example of an anchor support, Figure 2.3 shows an example of an intermediate support and its protection zone.

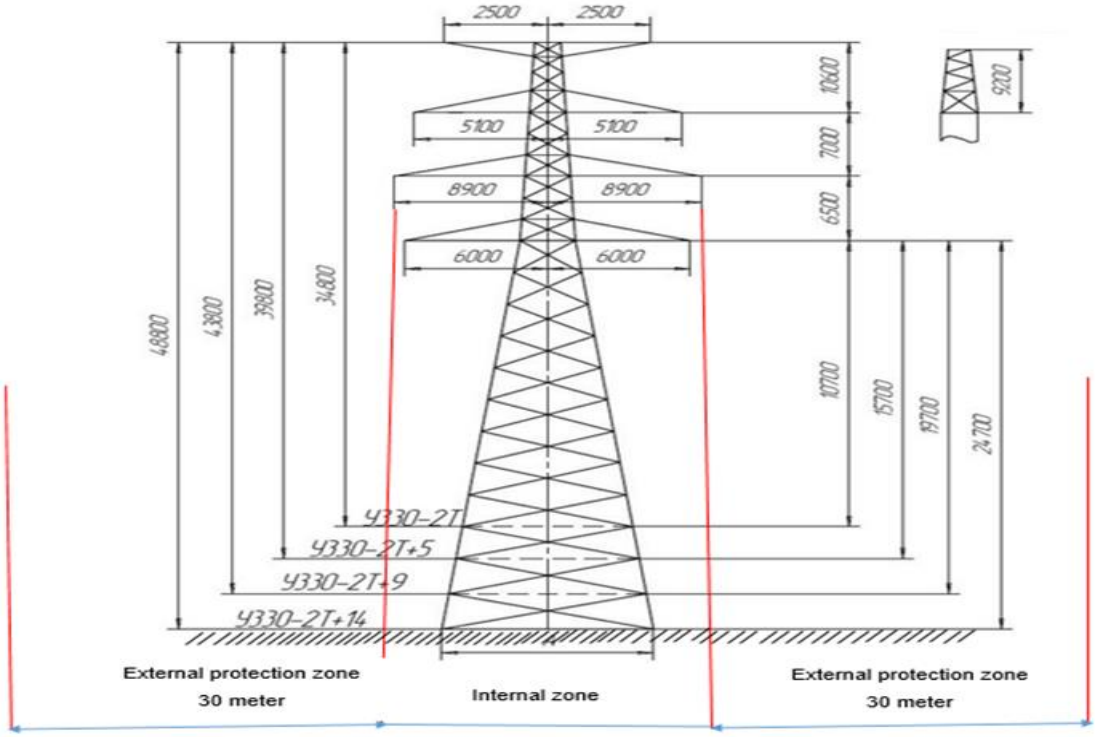


Figure 2-5. Structure of two-circuit 330 kV anchor tower, protection zone and approximate configuration of the corridor

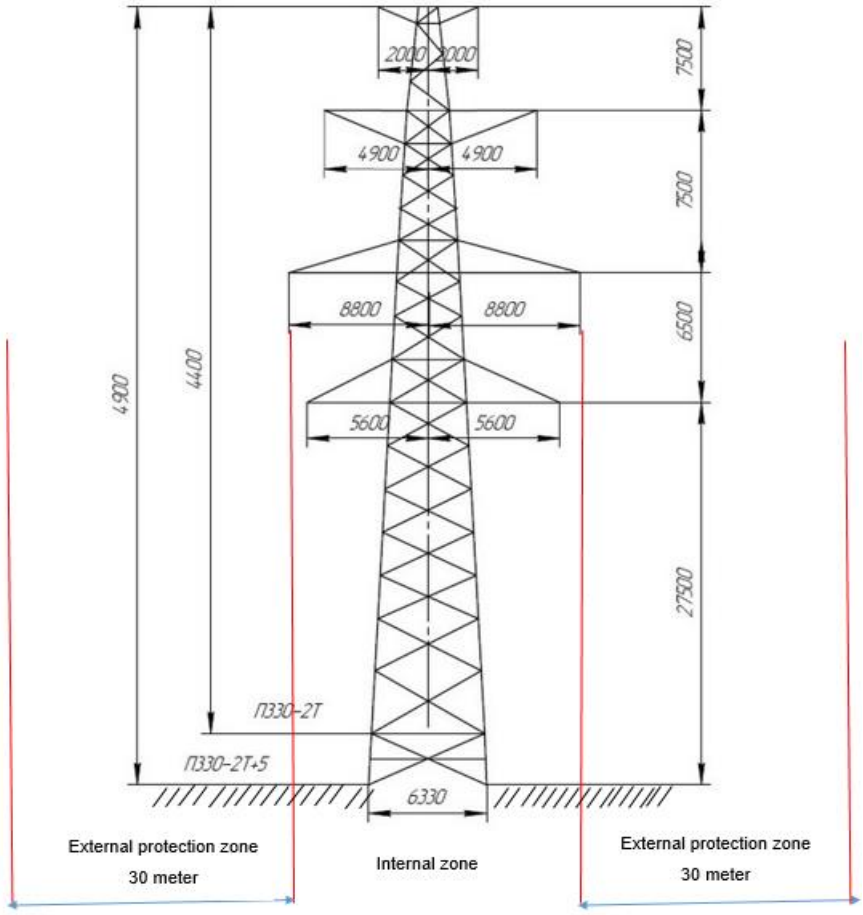


Figure 2.6. Structure of intermediate two-circuit 330 kV support, protection zone and approximate configuration of the corridor

Figure 2-7. A possible general view of the 330 kV double-circuit intermediate tower
Figure 2-8. An example of installed and assembled towers

Tower parts

Foundations

Installed towers

Mounted towers

The pictures show typical works of OHL construction. After each tower is installed along the route, crews break up the abutment perimeter, ground, soil, etc. it will be levelled, it is made by filling the

damaged area with protected soil, and drainage channels are installed if the water flowing from rain causes erosion. Future erosion of plants or plant tissues is prevented. After all the supports are installed, the wires between the supports are laid and tested.

The number of towers and their type as well as the proposed position of each individual tower within the proposed corridor will be identified and confirmed during the upcoming Project reference development stages (detailed design) in line with the relevant Azerbaijani legislation.

The number of conductors and their disposition on each tower type is two circuits with one conductor per phase and one protective wire at the top of the tower.

The maximal footprint area for a tower is approximately up to 100 m2. This land area will need to be permanently acquired in order ensure safe operations and maintenance of the transmission line.

Each tower will have four legs and single foundation per leg, i.e. four foundations for each tower. The foundations will be designed with reinforced concrete blocks with a type of concrete suitable to the specific bearing capacity of the soil, obtained from the respective site-specific geo-technical investigation.

Phase Conductors

The conductors are attached to the cross-arms at OHL towers by insulator strings, which, in the case of suspension towers, hang vertically below the cross-arms. At angle towers the conductors are again attached to the cross arms by insulators but in this case the insulators are in line with the conductors. Conductors for transmission lines are typically manufactured from aluminium with steel core. For the phase conductors for this 110 kV transmission line, pursuant to the current concept in Azerbaijan, Aluminium Conductor Steel-Reinforced (ACSR) conductors will be used with a normal cross section of 240/40 mm2.

Insulators

The transmission line will be connected to the grid with a directly grounded neutral point and nominal lightning impulse withstand voltage of 550 kV.

The insulator that is to be used will be of a type approved for such transmission lines and appro- priate assembling procedures will be carried out for the various types of insulator chains. Insulators are typically made of toughened glass.

Earthing

Earthing of the towers will be completed with one ring around each tower foundation and additional Fe (iron) wire ring is laid around the entire tower structure, roughly 1 meter away from existing rings and at depth of 0.8 to 1.0 meter, made from Fe wires of a nominal diameter (Ø) of 10mm. These rings are connected between them and to the tower steel structure. In cases where earthing needs to be reinforced (e.g. for types of soil with lower conductivity), reinforcement is done by adding two legs (extensions) from FeZn wires or FeZn tapes to existing rings on each tower foundation.

Protective Wires
One ground wire will be strung above the towers arms at the tower peak for protection against lightning strikes.

2.1.3 Ancillary Infrastructure

Ancillary infrastructure and equipment likely to be included within AZURE are as follows:

- For 500/330/10 kV Navahi substation:
  - Construction of access roads, for line and substation construction and maintenance purposes;
  - Equipment room and welfare area;
  - Establishment of construction camps, including temporary workers' accommodation and temporary storage sites for equipment and materials.
  - Construction of internal access roads and hardstand areas
  - Installation and construction of fencing, lighting, signage, and temporary works (eg, drainage and erosion and sedimentation controls).
  - Parking Facilities: Areas designated for parking vehicles related to the project, such as construction equipment, staff vehicles, or visitor parking.
  - Backup power supply (for example a battery energy storage system and/or emergency standby generators).
  - Cranes, excavators and trucks

- For Overhead Transmission Lines:
  - Access roads and staging areas for construction activities
  - Internal access roads between supports of towers.
  - Backup power supply (for example a battery energy storage system and/or emergency standby generators).
  - Cranes, excavators and trucks
  - Tensioning equipment, pulleys, and conductor stringing machines
  - Grounding and Earthing
  - Concrete mixers

2.1.4 Associated Facilities for the Project

Associated facilities are facilities or activities that are not funded as part of the Project and, as per the definition given in the WB's ESF are: (a) directly and significantly related to the project; and (b) carried out, or planned to be carried out, contemporaneously with the project; and (c) necessary for the project to be viable and would not have been constructed, expanded or conducted if the project did not exist.

The associated facilities for the Project are the following:

- Banka (315 MWac) SPP – will be constructed by private investor (Masdar Company),
- Bilasuvar (445 MWac) SPP – will be constructed by private investor (Masdar Company),
- Absheron (240 MW) WPP – will be constructed by private investor (Masdar Company).

The associated facilities for the AZURE Project are the following:

- Construction of 500/330/10 kV 2x500 MVA Navahi substation
- Construction of 500 kV single-circuit Absheron SS - Navahi SS OHL - 65 km
- Construction of 330 kV double-circuit Bilasuvar SPP - Navahi SS OHL - 90 km
- Construction of 330 kV double-circuit Banka SPP - Navahi SS OHL - 80 km
- Installation of 330 kV bay at Absheron substation

As stated earlier, Masdar is responsible for developing, constructing, commissioning and operating the solar and wind power plants. Masdar is also responsible for the environmental and social impacts assessment of the construction and operation of both SPPs and the WPP. Preliminary design information was made available by Masdar in March 2024. As per the implementation schedule of Masdar, two SPPs will be commissioned by April 2026, while WPP by October 2026.

Based on the preliminary design information provided by Masdar, the following figures describe the locations of SPPs and WPP (green circles).

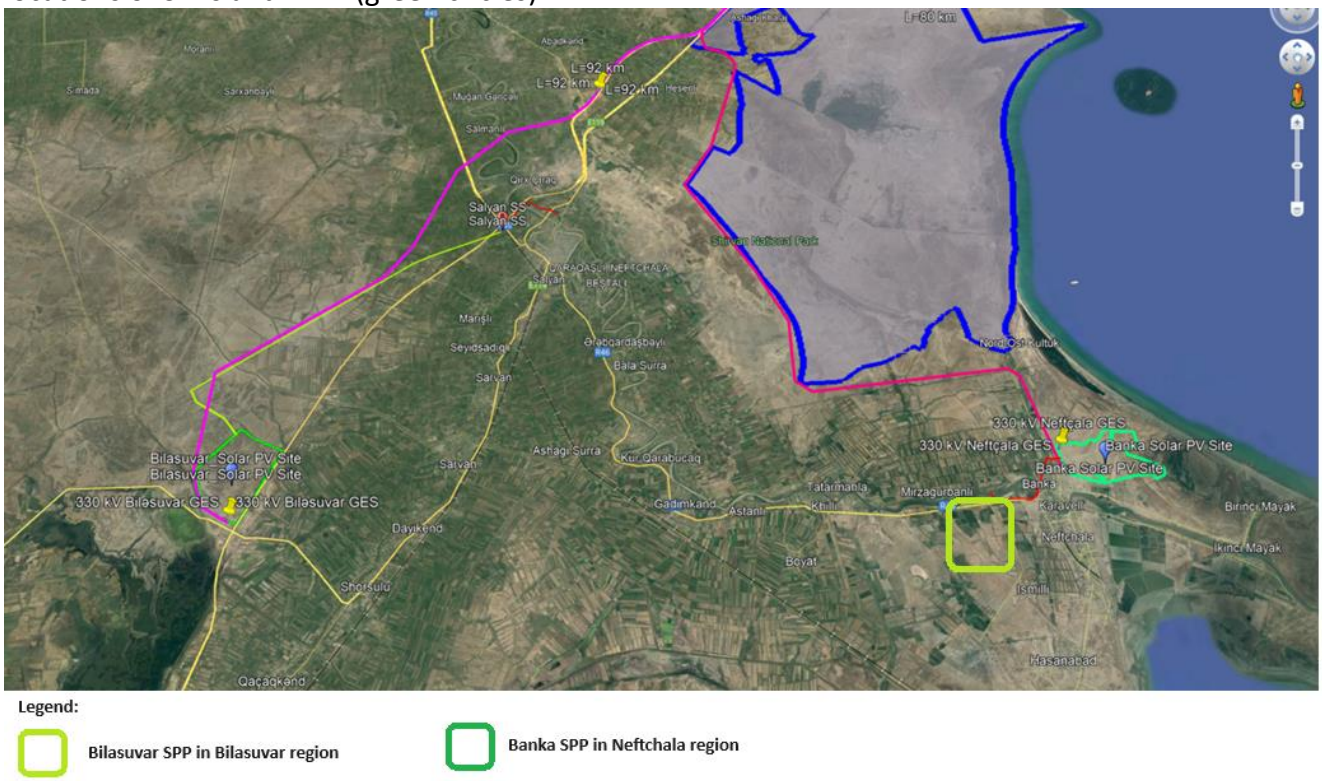


Figure 2-9: Locations of Banka and Bilasuvar SPPs

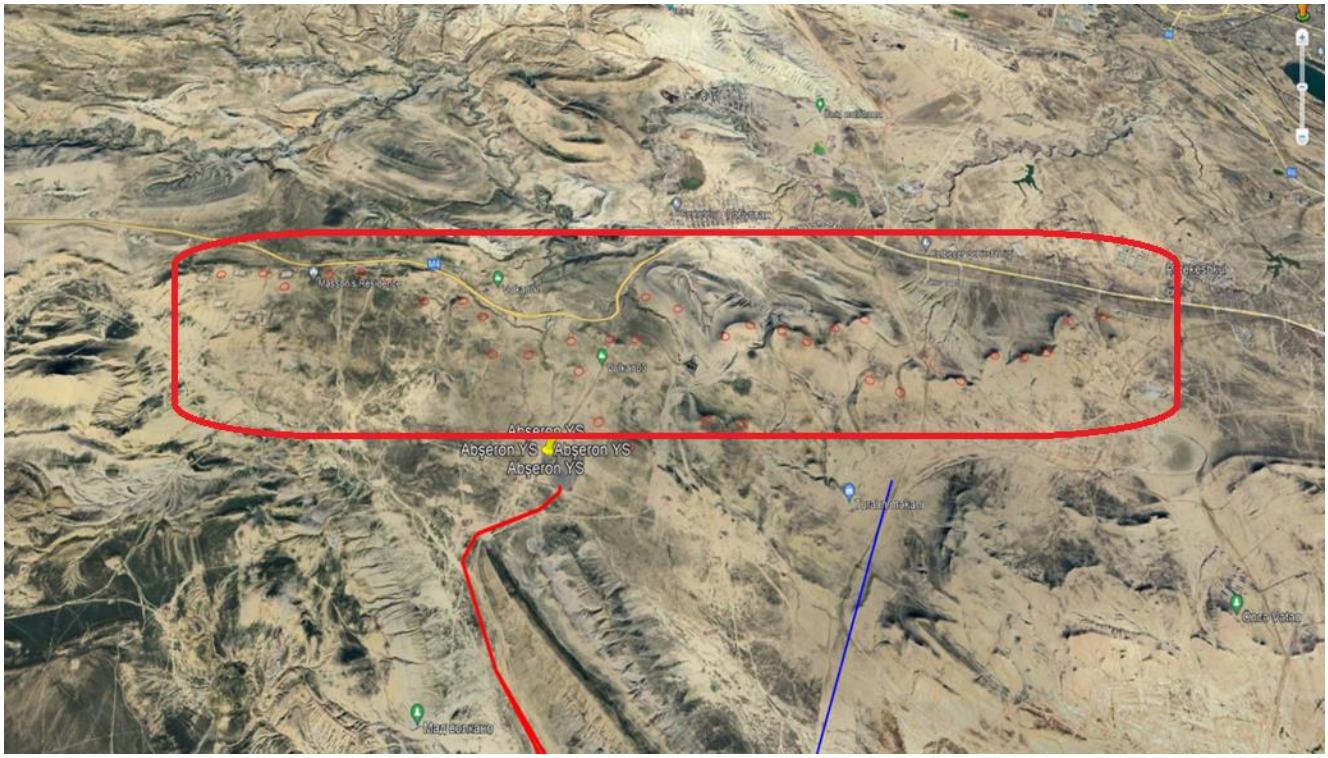


Figure 2-10. Location of Absheron WPP

2.2 Project Background and Objective

In recent years, there has been a growing global focus on transitioning towards renewable energy sources as a sustainable and environmentally friendly alternative to traditional fossil fuels. Azerenerji recognizes the importance of this transition and has embarked on a strategic initiative to promote the integration of renewable energy into the existing energy infrastructure.

The Project initiative aims to address key challenges and opportunities related to the effective integration of renewable energy sources (solar, wind, hydro) into the energy grid. By leveraging innovative technologies, policy frameworks, and stakeholder collaboration, the project seeks to accelerate the adoption and integration of renewables, contributing to a more sustainable and resilient energy ecosystem.

The Project is a part of Azerbaijan's renewable energy portfolio, currently with 50 MW of wind and 230 MW of solar capacity, and is set to expand by 4 GW through a partnership with Masdar. The primary investment targets construction of a 315 MWac solar PV project in Banka and 445 MWac solar PV project in Bilasuvar between 2026-2027, followed by 240 MW wind plant in Absheron scheduled by 2028.

The establishment and successful development of the Project is an important part of the general policy of the President of the Republic of Azerbaijan and the GoA, which is to develop renewable energy sources and allow Azerbaijan to become an important exporter of green energy to the international markets, with diversified and export-oriented economy creating high-added value, based on a world class attractive business environment, with modern energy, transportation, and logistical infrastructure.

The Project is aimed to strengthen Azerenerji's transmission network, making it more reliable and capable of handling increased power flow and the fluctuating generation from the SPPs. It will enable Azerenerji with integrated VRE system planning, improve system flexibility, and increase staff capacity to operate and dispatch variable renewable energy.

2.3 Implementation arrangement of Proposed Project

The Government of Azerbaijan has a requirement to advance the implementation of the project and has determined in consultation with the World Bank that the 330 KV transmission lines and civil works construction of 500/330/10 kV substation as a matter of priority would be procured through the state funds as parallel financing, and that the proposed AZURE project to be funded by the IBRD loan would be utilized to cover the remaining parts.

The GoA funded Project

The GoA will finance the connection of Bilasuvar and Banka solar power plants to the Navahi substation with 330 kV lines and to Absheron substation with 500 kV line, temporarily operating at 330 kV. This upfront investment by the government will facilitate the introduction of 330 kV voltage connection to the substations of both solar power plants, allowing for plant commissioning and evacuation by end March 2026 as per the anticipated schedule from the private solar developers. This temporary linkage of the two solar power plants to Azerenerji's 330 kV grid, along with the operation of the 330 kV Navahi-Absheron line anticipated to transition to 500 kV in the final configuration, will enable the plants to evacuate a portion of their ramp-up production.

AZURE Project

Component 1

Strengthening and development of renewable energy transmission network infrastructure

Transmission Lines	
(i)	Construction of 330 kV single-circuit Mingachevir HPP - Navahi SS OHL - 220 km
(ii)	Construction of 500 kV single-circuit Azerbaijan TPP - Navahi SS OHL - 235 km
(iii)	Construction of 330 kV single-circuit Alat FEZ SS - Navahi SS OHL - 20 km
(iv)	Construction of 330 kV single-circuit Absheron WPP - Navahi SS OHL - 60 km
(v)	Construction of 330 kV single-circuit Absheron WPP - Gobu ES OHL - 20 km
Construction and extension of high voltage substations	
Substations	
(i)a	Supply and Installation of 500 kV side equipment for 500/330 kV Navahi Substation
(i)b	Supply and Installation of two 500kV transformers for 500/330 kV Navahi Substation
(i)c	Supply and Installation of Reactor for 500/330 kV Navahi Substation
(ii)a	Installation of 500 kV slot (line bay) at Azerbaijan TPP
(ii)b	Expansion on the 500 kV side of Absheron substation

(iii)a Expansion of the 330 kV bay at Mingachevir substation
(iii)b Expansion on 330 kV side at Gobu PS

Component 2

Management and monitoring of power systems
(i) Upgrading SCADA at central control room, debugging and purchasing of new software
Control of power systems
(ii) Creation of a monitoring system for the power plants (application of Wide Area Monitoring System (WAMS) with PMU characteristic devices)
BESS
(i) Construction of 100 MW /100 MWh (TBC) battery energy storage system and a management module for BESS/SCADA control

Component 3

Consultant Services
Engagement of Supervision Engineer (Component 1 and BESS)
External audit of project accounts (for three years)
Preparation of Purchaser's/Employer's Requirements + procurement documents preparation for SCADA/EMS and WAMS monitoring systems + Supervision services and Capacity Building (Training and Technical Support)
Preparation of Purchaser's/Employer's Requirements + procurement documents preparation for BESS

The proposed project will finance a Supervision Engineer to assist the PIU with (i) overall project management and daily supervision of the procurement, design, construction and preparation for operation and maintenance of the complete investment, including the full transmission line, construction and upgrade of substations; and (ii) supervision and monitoring of the implementation of the Environmental and Social Management Plans (ESMPs) and the Resettlement Action Plans (RAPs), based on an agreed monitoring plan. The project operations manual will reflect the required reporting procedures by the PIU to the WB, including monthly flash status updates during the procurement and construction phases. These updates will offer concise, timely information on the project's progress, addressing key milestones, potential issues, and any adjustments to the timeline.

3. PROJECT ALTERNATIVES

Approach

The Project has developed a framework methodology for the review of alternatives. This framework has been developed to illustrate the design process being applied and the stages at which alternatives have been or could be considered. There are three stages at which alternatives have been considered: strategic alternatives (following 'Power System Level' studies); corridor and node alternatives (following 'Desk Study Level' studies on technical, environmental and social aspects) and finally route optimisation alternatives (at the 'ESIA and Technical Studies Level'). So far works have been completed for the establishment of the 'Strategic Alternatives' as well as for the 'Node and Corridor Alternatives.' As the ESIA progresses by the mid of August and since the corridors have been already selected the results of ESIA studies will be fed into the route designs to optimise for technical, environmental and social aspects.

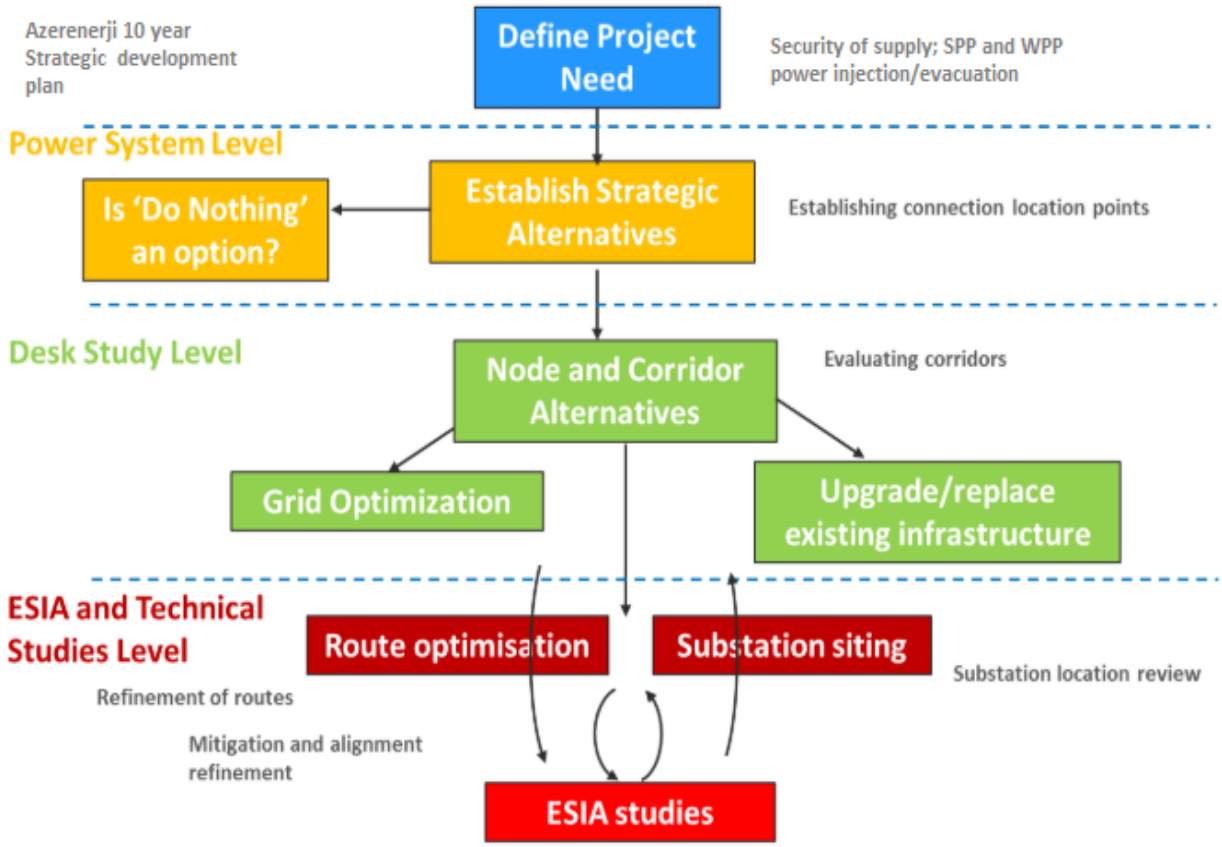


Figure 3-1: Framework methodology for review of project alternatives

The scoping study has provided alternative routes to be considered for OHLs to avoid encroachment with protected areas. These routes are described below:

- The scoping study avoided encroachment with important heritage site in Aghsu region (Aghsu Medieval Open Archeological Museum Complex) and shifted the alignment to safe distance from the heritage site. (See Figure 3-2 below)

Further, the scoping study identified points of development that included industrial and agricultural structures as well as residential that would be impacted by the initial design for the OHLs. These alignments were refined to minimise the impacts that would require demolition of structures and physical displacement. As per the latest deign there is no indication that physical displacement would be triggered.

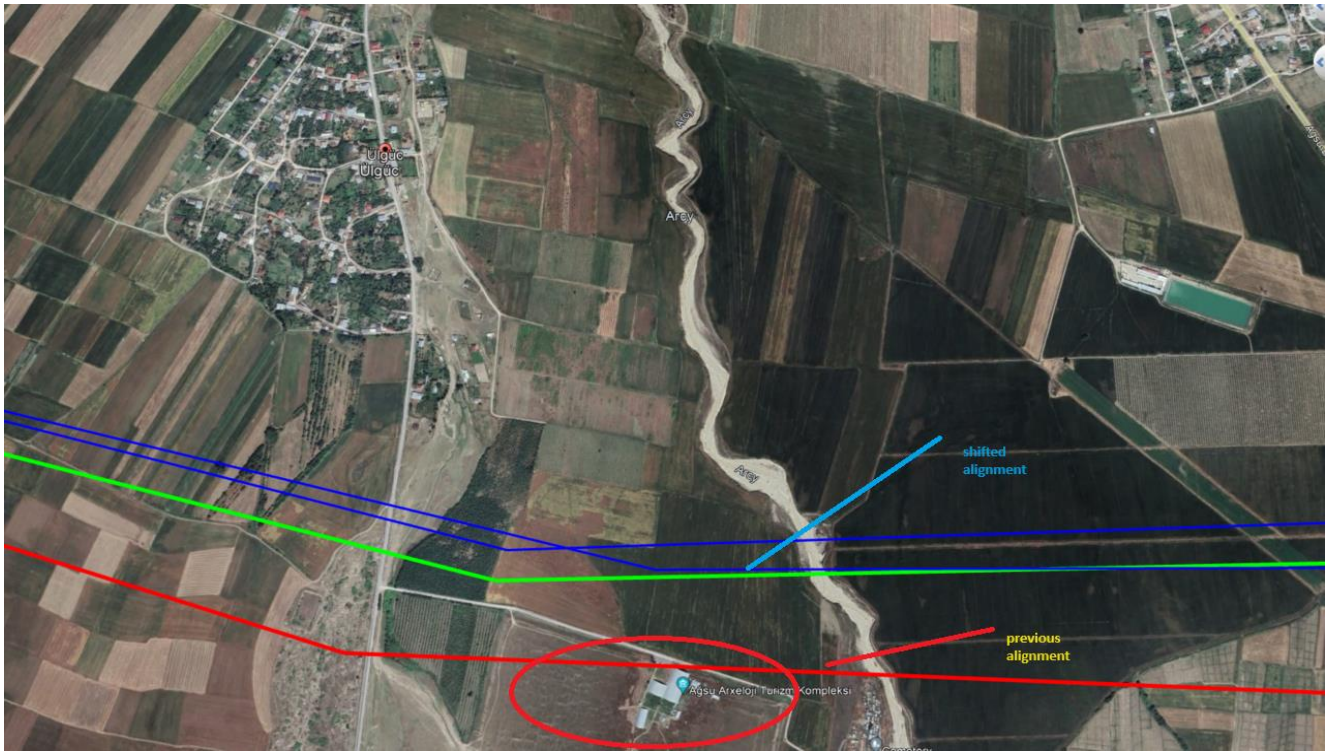


Figure 3-2. Shifted alignment to avoid the Mediaval Aghsu Town Archaelogical Tourism Complex

- The scoping study avoided encroachment of 330 kV double-circuit Banka-Navahi OHL with Shirvan National Park and shifted the alignment to south-west of the NP beyond the boundaries (the closest distance is 30 m) of the important protected area (See Figure 3-2 below).

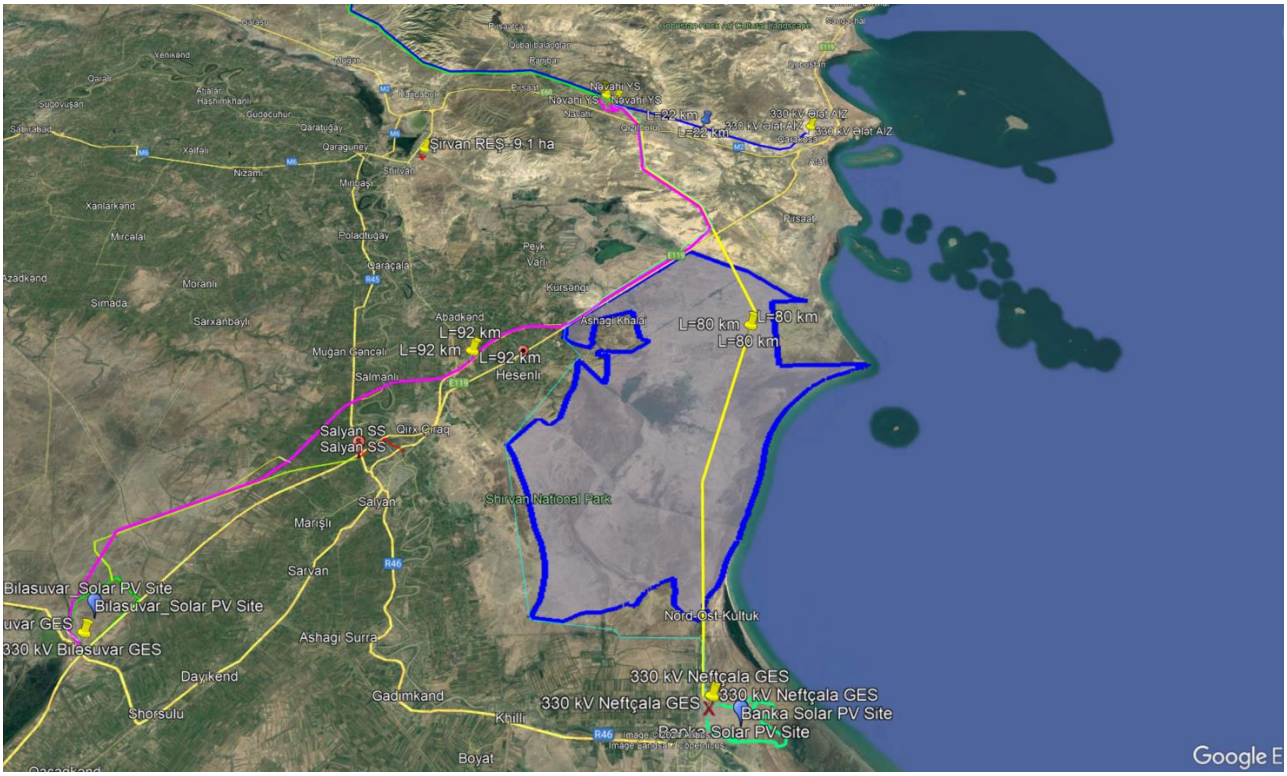


Figure 3-3: Old and new alignment of Banka-Navahi OHL

Alternative concepts and connection options have been considered, including the "do nothing" option.

Do Nothing Option

If the Project is not implemented, this will hinder the objectives of the country's energy sector strategy and renewable energy transition goals. With this option, greater reliance will continue to be placed on generating power from fossil fuel sources. The achievement of the objectives of Azerbaijan's 2025 vision and beyond for the inclusion of renewable energy electricity within its generation mix would not be supported.

Site Options

The Navahi substation is proposed be built within the boundaries of the site allocated to Azerenerji during the Soviet period for the same purpose (construction of the substation). Several options have been considered for placing the substation, and the exact location was chosen taking into account there is a informal settler's house within the boundaries of the site, thus, causing the need to observe a minimum safety distance of 30m.

The sites for the Banka and Bilasuvar SPPs and Absheron WPP have been allocated to Masdar by the Ministry of Energy on behalf of the Government of Azerbaijan from the state land fund allocated for development of solar and wind power development opportunities in Azerbaijan. It is expected that the ESIAs for SPPs and WPPs being prepared by Masdar, will discuss the process of site assessment and alternative selection.

Reconstruction vs New Construction Alternative

Investment Agreements signed between the GoA and Masdar Company envisage the implementation of 445 MW solar power plant in Bilasuvar region, 315 MW SPP in Banka settlement of Neftchala region and 240 MW WPP in Gobustan region. The existing 330 kV transmission lines in Neftchala and Bilasuvar regions were built 50 years ago and are currently at maximum load and not capable of receiving an additional 1000 MW of renewable power. Therefore, the reconstruction of the existing grid is not a feasible solution for the evacuation and transmission of energy to be generated at the new SPPs and WPP. Instead, it is important to build a new 500/330 kV "Navahi" substation and connect the solar and wind power stations to the power system via 500/330 kV connecting/evacuation lines.

4. INSTITUTIONAL AND LEGAL FRAMEWORK

The ESIA study for the AZURE is carried out considering the requirements of national regulations and the Environmental and Social Standards (ESSs) of the World Bank ESF. This chapter outlines national institutional framework, policy and legislation requirements pertinent to the Project as well as WB ESSs relevant to the Project.

Whereas the ESIA study for the GoA funded Project is carried considering the respective requirements of national regulations of Azerbaijan Republic and will be subject to environmental and social due diligence to be conducted by independent consultancy to be arranged by Azerenerji JSC.

4.1 Azerbaijan Institutional Framework

The ministries, agencies and institutions having key functions with responsibility for the environmental and social aspects of the Project are listed in the following table.

Table 4-1: Overview of Relevant Institutions at Government Level

Entity	Functions
Ministry of Ecology and Natural Resources (MENR)	Representing the central state authority overseeing the environmental protection. The Decree No.485/2001 sets forth provisions on duties and authorities, activities and organization of the MENR, which is seen as the executive central body in carrying out activities in the field of environment such as ensuring environmental protection, developing efficient use of natural resources, groundwater and mineral resources, observing hydrometeorology processes, improving soil fertility, to this end monitoring, surveying and mapping.
Ministry of Energy	Responsible for regulation of activities in the mining and energy industries of the Republic of Azerbaijan, covering the functions of both the abolished Ministry of Industry and Energy and Ministry of Fuel and Energy. The Ministry is responsible for the design and implementation of state policy and regulation in the energy sector, mainly concerning natural gas production, transportation, processing, distribution and supply; electricity generation, transmission, distribution and supply; and energy saving and efficiency. Moreover, the Ministry controls relevant state-owned enterprises. The Ministry has a dedicated department that is responsible for increasing the deployment of energy efficiency and renewable energy policies.
Ministry of Emergency Situations (MES)	It is a central executive body responsible for the civil defense and the protection of the population from natural and man-made disasters.

Entity	Functions
Ministry of Health	It is the state institution controlling the sanitary-epidemiological situation in the country and regulation of health protection in the workplace. To be involved to issue permit to construct. It has a role during the permit process.
Tariff (price) Council	This is the implementing body for energy prices, service fees and collections across all regulated entities in the economy. The Council is chaired by the Ministry of Economic Development and has 12 members.
Azerbaijan Renewable Energy Agency (AREA)	Agency driving the development of the country's renewable energy resources and related projects, by preparing state policy, legal acts, regulatory documents and implementing state policy for creation and development of renewable energy sources. The status of the Agency was altered by a Presidential Decree No. 464 of 14 January 2019.
Azerbaijan Energy Regulatory Agency (AERA)	This recently established Agency (December 2017) is the Public Legal Entity under the Ministry of Energy in charge of bringing utility services in line with the requirements of the market economy; achieving sustainable development by further improving control mechanisms; maintaining transparency and flexibility in energy supply; and ensuring accessibility of these services for entrepreneurs.
Ministry of Labor and Social Protection of Population	Government structure contributing to high-levelled execution of social policy strengthening and improvement of welfare state of country population.
State Tourism Agency of the Republic of Azerbaijan	The agency is the central executive body implementing the state policy and regulation in the field of protection of historical and cultural monuments located in the territories of the state reserves under its subordination. The State service is the executive body exercising state control on usage of immovable historical and cultural monuments (except State Historical-Architecture of "Icheri Sheher" and "Qala" State Historical Ethnographic Reserve) that are under state protection, restoration, reconstruction and protection.
Ministry of Culture (State Service for Protection, Development and Restoration of Cultural Heritage under the Ministry of the Culture of the Republic of Azerbaijan)	Governmental agency within the Cabinet of Azerbaijan in charge of regulation of the activities and promotion of Azerbaijani culture.

Entity	Functions
State Committee for Urban Planning and Architecture	Creates and maintains the state urban planning cadaster, ensures the preparation of the general layout and regional settlement schemes, schemes and projects of Region planning, master plans of cities and other settlements, projects of residential areas, industrial centers, schemes and projects of engineering and communication lines of settlements and projects.
The State Land and Cartography Committee of Azerbaijan Republic (SLCC)	In charge of implementing land cadastral, monitoring and reforms; restoration and increasing of land productivity, setting territorial units in Azerbaijan Republic. The Department on Land structure, land reform and Work with regions under SLCC is responsible for coordination of Land acquisition and resettlement works with executive agencies.
Azerbaijan National Academy of Sciences, Institute of Geology	The main state research organization and the primary body that conducts research and coordinates activities in the fields of science and social sciences in Azerbaijan. Mud volcanoes have been studied at the Institute of geology.
Regioin / Rayon Executive Authorities and Powers	They are representative offices of the President of Azerbaijan in places. Within the limits of their authority, they manage a city (region), adopt acts of regulatory and normative nature, dispose of state-owned lands, develop and implement programs for socio-economic development in the territories entrusted. The Region / Rayon Executive Powers are responsible for the local management of state lands within the Rayons territories, and for the supervision of municipal land management.
Municipalities	They are a form of local self-government and non-state system for organizing the activities of citizens within the territories established by the laws of Azerbaijan. Municipalities, within their powers, design and implement programs for social protection and social development, economic development and local environmental programs.

Table 4-2: Overview of Relevant State Energy Entities

Entity	Main Functions
Azerenerji JSC - Electricity generation and transmission	Electricity generation and transmission. Discussion with the Company ongoing defining Project's details and implementation.
Azerishiq JSC - Electricity distribution and supply	Electricity distribution and supply.
State Energy Agency of the Nakhchivan Autonomous Republic	Electricity generation, transmission, supply and distribution in the territory of the Nakhchivan Autonomous Republic of Azerbaijan (regional energy exchanging with Turkey and Iran).
Azalternativenergy LLC	Under the structure of the State Agency on Alternative and Renewable Energy Sources, this 100%-state-owned company was established to implement renewable energy projects; generate, transmit and distribute electricity from alternative and renewable energy; and provide construction and engineering services to both the government and the private sector.

4.2 Policy and Legal Framework

The process of the environmental assessment is governed by the Law on Environmental Impact Assessment (EIA) approved by the Presidential Decree No.193, dated 13 July 2018.

According to this Law, in order to coordinate the planned activity with the State Ecological Expertise of the MENR, it is necessary to develop and submit the EIA report to the representatives of MENR. The purpose of the Law “On EIA” is to create the legal basis for the functioning of the mechanism for the environmental impact assessment of public and private projects or the types of planned activities to ensure the prevention or reduction of negative impacts on the environment and public health at the earliest stages. The development of the EIA report is mandatory.

In accordance with the provisions of this Law, the EIA is carried out based on the following principles: an integrated environmental, social and economic assessment of the impact of the proposed activity on the environment and human health; ensuring the integrity, transparency and reliability of information about the environmental safety of the proposed activity; the preservation of ecological balance and biodiversity; not to exceed the impacts of the proposed activity on the environment to acceptable standards; forecasting of possible environmental consequences and assessment of the level of environmental risks; ensuring transparency in the EIA, informing the public and taking into account public opinion.

Specifically, the EIA report should include:

- Assessment of the initial and expected state of the environmental and socio- economic environment.
- Determination of the environmental impacts of construction, reconstruction and operation of facilities.
- Environmental Management Plan, combining a system of measures to reduce and mitigate environmental impacts.
- Environmental Monitoring Plan providing for the effectiveness of environmental measures.

4.2.1 Laws Applicable to the Project Purposes

The table below presents a summary of key environmental laws which, in addition to the Law on EIA described above, are applicable to the Project purposes.

Table 4-3: Key Laws applicable to and regulating the Project[2]

Law Title	Year	Description
Key environmental legislation		
Law on the Protection of the Environment, No. 678–IQ	1999 (last amendment in 2014)	This Law governs the legal, economic and social framework for environmental protection. The purpose of this Law is to guarantee environmental safety and the ecological balance of the environment, prevent the impact of socioeconomic and other activities, preserve biological diversity, and effectively manage the use of nature. This Law governs mutual relations between society and nature for the purpose of improving the quality of the environment, using and renewing natural resources efficiently, and enforcing environmental protection laws and legal procedures.
Law on Ecological Safety, No. 677-IQ	1999 (last amendment in 2013)	The main purpose of this Law is to establish legal basis for the protection of human life and health, environment, including atmospheric air, waterbodies, subsoil, land, vegetable and animal kingdom against risks originating from man's and natural impact thereon.

[2] *Sources of information:*
- http://www.aera.gov.az/en/legal-acts/laws
- "Renewables Readiness Assessment, Republic of Azerbaijan" (IRENA,2019);
- FAOLEX database: http://www.fao.org/faolex/country-profiles/general-profile/en/?iso3=AZE

Law Title	Year	Description
Law on Fauna, No. 675-IQ	1999 (last amendment in 2015)	This Law establishes the legal basis for protection of fauna in the Azerbaijan Republic, with the aim of ensuring preservation and rational use of all types of wild animals. It also describes issues of State inventory and monitoring, and economic and punitive regulations.
Law on Green Belts, No. 957-IVQ	2014	This Law aims at conservation of greens (trees, shrubs, flowers, grasses and planting materials) and green areas, also by defining the rights and obligations of state agencies, municipalities, legal entities and individuals.
Law on Specially Protected Natural Territories and Objects, No. 840-IQ	2000 (last amendment in 2015)	This Law determines the legal basis for protected natural areas and objects in Azerbaijan.
Law on Protected Areas, No. 540-IQ	2000 (last amendment in 2006)	This Law establishes legal basis for the organization, protection and management of protected areas, based on the following main objects: 1) conservation of biological diversity and ecosystem; 2) purposeful use of protected areas for scientific research, culture and education; 3) recreational use; 4) international cooperation (art. 3).
Law on Protecting the Atmosphere, No. 109-IIQ	2001	This Law has the purpose of protecting the atmosphere to ensure the people's right to live in a favourable environment and their access to accurate environmental information. It sets general requirements for air protection during economic activities, establishes norms for mitigating physical and chemical impacts to the atmosphere and establishes rules for the State inventory of harmful emissions and their sources.
Law on Water Code, No. 418-IQ	1997 (last amendment in 2015)	This Code regulates legal relations concerning the protection and use of water bodies in the Azerbaijan Republic, it sets property rights and covers issues of inventory and monitoring.

Law Title	Year	Description
Law on Industrial and Domestic Waste, No. 514-IQ	1998 (last amendment in 2012)	This Law reports the State policy in environmental protection from industrial and household waste including harmful gases, wastewater and radioactive waste. It defines the rights and responsibilities of the State and other entities, sets requirements for the design and construction of waste-treatment installations, licensing of waste generating activities, and for the storage and transport of waste (including transboundary transportation), encourages the introduction of technologies for the minimization of waste generation by industrial enterprises.
Law on obtaining Information on the Environment, No. 270-IQ	2002 (last amendment in 2016)	This Law regulates relations arising in connection with the timely receipt of complete, reliable, timely information about the state of the environment and the use of natural resources from state authorities and local self-government, as well as from responsible persons.
Key health-social-cultural-economic legislation		
Law on community health care, No. 360-IQ	1997 (last amendment in 2020, No. 71- VIQD)	This Law defines the basics of public health and the main principles of the healthcare system in Azerbaijan.
Law on Radiation Safety of the Population, No. 423	1998 (last amendment in 2020, No.1592-VQD)	This Law requires compliance with radiation safety in industrial enterprises. The law defines the basic principles of state policy in the field of radiation safety, as well as environmental standards that ensure the safety of workers and the public in territories exposed to potential impacts as a result of the use of radioactive sources.
Law on the Protection of Historical and Cultural Monuments, No. 470-IQ	1998 (last amendment in 2020, No. 1054)	This Law establishes the legal framework related to the protection, study and use of historical and cultural monuments in Azerbaijan.
Law on employment, No.1196-VQ	2018 (last amendment in 2019)	This Law establishes the legal, economic and organizational foundations of state policy in the field of employment assistance, as well as social protection of unemployed citizens.

Law Title	Year	Description
Law on unemployment insurance, No. 765-VQ	2017 (last amendment in 2018)	This Law establishes the basic principles of relations in the labor market of Azerbaijan, the creation of new mechanisms for financing the lost wages of insured citizens, payment of compensations to them and strengthening social protection of the population.
Labor Code of the Azerbaijan Republic No. 618-IQ	February 1, 1999,	The Labor Code, through the relevant legal norms, defines the labor, social, economic rights of employees and employers, as well as the principles and rules for ensuring the right to work, rest, work in safe and healthy conditions, as well as other fundamental rights and freedoms of citizens of the republic.
Law on State Guarantees of Equal Rights for Women and Men.	10 October 2006	The law aims to eliminate all forms of gender-based discrimination and ensure gender equality in the political, economic, social and cultural spheres. All human rights are guaranteed to women and men.
Key Land Management legislation		
The Constitution	Adopted on 1995	Recognizes the citizens' right to own, use and dispose property. It also recognizes three type of property ownership in Azerbaijan - state, municipal and private (Article 13). It guarantees that no one will be dispossessed of their property without their consent or decision by the court of law and that alienation of private property for state needs will be allowed only after payment of fair compensation to the owner (Article 29). The constitutional amendment adopted on 26th September 2016 with regards to Article 29 specifies (i) private land ownership entails social obligations and (ii) property right on land can be restricted by law for social justice and efficient use of land.

Law Title	Year	Description
The Land Code dated June 25, No. 695-IQ	1999 (last amendment in 2019)	The Land Code is aimed at regulating land relations, fulfilling the obligations of landowners, users and tenant farmers and protecting their rights to land, creating conditions for the rational use of lands and their protection, restoration and improvement of land fertility. Article 101 states that, all damages caused by acquisition of land (compulsory purchase) or temporary detention, as well as limiting the rights of owners, users and lessees or deterioration of the quality of soil should be fully paid to landowners or users. In addition, costs derived from early termination of its obligations against third parties should also be paid to the affected person. Disputes relating to compensation, is being considered in a court in accordance with the procedure established by the legislation.
The Civil Code	Adopted in 1999	Articles 246, 247, 248 and 249 include provisions for acquisition of lands for state needs. The Code requires the Decree on acquisition of lands for state needs should be registered in state real estate registration. It also states that Executive Agency should; a) send official notifications to all affected persons about land acquisition; b) pay full compensation to the affected persons within 90 days after the transaction agreement made; c) assist relocated people; and d) pay compensation for affected assets on the market rates (in case it is not possible to identify market rates, replacement prices are used).

Law Title	Year	Description
		The Civil Code states as well that affected person can select one or more type of compensations. It also states that any rights to real estate must be registered with the State, and that land may be acquired from owners for state needs as approved by the relevant courts. It also states that the legality of ownership is established through the registration certificate issued by the Real Estate Land Registry Service based on the cadastral information (survey numbers) obtained from the State Land and Cartography Committee (SLCC) where the land is located.
The Land Expropriation Law for State Needs	April 2010	Specifically address matters related to involuntary resettlement (IR), including the process and institutional arrangement for land acquisition, compensation and valuation, consultation requirements, entitlements of various categories of displaced persons and grievance mechanism. The law considers various categories of displaced persons, including those without state registration, renters, non-formal long-term users of land, and persons who have no legal rights on the land that they live in. The law entitles persons who have no legal rights on the land to resettlement assistance and compensation for their non-land assets. It includes provision of compensation for loss of business/income, transition allowance and transportation support, and compensation for loss assets based on replacement cost. As per the LAL, in case of physical displacement, the acquiring authority needs to send notification to DPs at least 60 days before resettlement.

Law Title	Year	Description
Decree on the Land Expropriation Law for State Needs	2011	The Decree stipulates additional provisions for the implementation of the Land Expropriation Law. It also assigns government agencies for each case of relevant executive body.
President Decree No. 506-3 QD	December 07, 2007	The Decree requires the provision of 20% additional compensation to the calculated market price of the acquired property
Law on land market, No.665-IQ	1999 (last amendment in 2018, No.1287-VQD)	This Law establishes general rules for land market relations in the Azerbaijan Republic and ensures the protection of property rights to land.
Law on the state land cadastre, land monitoring and land management No.593	December 22, 1998. The last amendment was introduced by the Decree of the President of the Azerbaijan Republic dated May 31, 2018, No.1156-VQD	This Law defines the legal framework for ordering the state land cadastre, land monitoring and land management works in the Azerbaijan Republic.
Law on land lease dated December 11, No.587-IQ	The last amendment was introduced by the Decree of the President of the Azerbaijan Republic dated May 31, 2018, No.1156-VQD	This law defines the legal framework for the lease of lands in state, municipal and private ownership, and lease relations in the Azerbaijan Republic. The law states that (Article 16) when the leased land is acquired for state needs, another land plot having a same size and a same quality can be provided to lessee. Losses incurred in this land shall be paid in accordance with the legislation.
Law on the management of municipal lands No.160-IIQ	June 29, 2001. The last amendment was introduced by the Decree of the President of the Azerbaijan Republic dated June 19, 2020, No.138-VIQD	This Law regulates the general rules for the transfer of municipal lands to ownership, use and lease, taking into account the peculiarities of their management, legal relations in the field of their use and protection.
Cabinet of Minsters' Resolution No.45 24	2012	Approving of guidelines for preparation of Resettlement Plan and Resettlement Guideline.

Law Title	Year	Description
Rules for assigning lands to categories and transferring them from one category to another", approved by Decision No. 10 of the Cabinet of Ministers	2017	Agricultural lands (arable lands) are specially protected and their transfer to other categories for non-agricultural purposes is permitted in exceptional cases in accordance with the Land Code of the Republic of Azerbaijan and on the basis of the requirements of the "Rules for assigning lands to categories and transferring them from one category to another".
Key laws relating to Energy Sector		
Law on Energy Resources Utilization,No. 94-IQ	1996	The Law on Energy Resources Utilisation defines the legal, economic and social fundamentals for State policy on the use of energy resources as well as the main directions for policy implementation. The Law includes provisions on the certification and standardisation of energy consuming installations, facilities, etc..
Law on Energy, No. 541-IQ	1998	This law covers the regulation of the exploration, exploitation, production, processing, storage, transportation, distribution and use of all energy materials and products, including gas.
Law of Azerbaijan Republic on Electricity № 858-VIQ	April 2023	The Law applies to subjects of electric energy, consumers and state bodies (institutions) operating in the field of production, storage, transmission, distribution, supply, import, export and consumption of electric energy in accordance with Article 94, Part I, item 11 of the Constitution of the Republic of Azerbaijan. It regulates the relations between them and determines the legal, economic and organisational bases of the electric energy sector.
Law on Power Engineering, No. 858-VIQ	2023	The Law on Power Engineering provides the legal background for the generation, transmission, distribution and sale of electricity and heating, aiming at ensuring rational utilisation of power resources as well as environmental protection. The Law appoints the Ministry of Energy as the authority responsible for licensing and regulating electricity generation, transmission, distribution, sale, and import-export activities.
Law on Heat and Electric Power Plants, No.784-IQ	2000 (last amendment in 2019)	This Law determines the legal framework for the design, construction and operation of power plants including independent power

		plants. Any natural or legal entity has the right to construct, rehabilitate and operate power plants, and activities related to "industrial power plants" (i.e. excluding small power plants) must be licenced by the Ministry of Energy. The Law also provides for the process and conditions of negotiated access and connection of such licenced facilities to the grid

4.2.2 Renewable energy related laws

Azerbaijan has a dedicated, comprehensive laws governing the various aspects of renewable energy development. The existing legal and regulatory framework for energy also consider specific provisions for the use of renewable energy, such as the following secondary laws aimed at promoting the use of renewable energy through special concessions[3].

Relevant laws and normative legal acts have been adopted in order to develop the renewable energy sector in our country, to improve the legislative and institutional environment in this area. In recent years, the work carried out in the field has been continued and the law of the Republic of Azerbaijan No 339-VIQ, dated 31 May 2021 On the use of renewable energy sources in the production of electricity, which makes a special contribution to the development of renewable energy has been approved.

The State Program on the Use of Alternative and Renewable Energy Sources, adopted in 2004, aims to determine the potential of alternative energy sources in the production of electricity, increase the efficiency of national energy sources, guarantee national energy security, decrease CO2 emissions, and support job creation via renewable energy sector development.

The amendments of March 2014 to the two Cabinet of Ministers Decrees on Rates of custom duties for export–import operations in Azerbaijan Republic and List of goods exempted of VAT imported to Azerbaijan Republic territory state that the import of equipment, facilities, parts and tools used in the renewable energy industry and in achieving energy efficiency are exempt from customs duties and VAT.

The Decree of the Cabinet of Ministers On determination of electricity production and power limits for the commissioning of electrical installations (No. 482/2016) states that special permits for alternative and renewable energy power plants are required only for power plants with a capacity of more than 150 kW, and for hydropower plants and biogas power plants with a capacity of more than 500 kW.

As shown in the following figure, the permitting procedure for renewable energy in Azerbaijan is complex, as involving fragmented division of responsibilities across Ministries and local administration.

[3] *"Renewables Readiness Assessment, Republic of Azerbaijan" (IRENA,2019).*

Figure 4-1: Overview of Existing Renewable Energy Permitting Procedures (IRENA, 2019)

4.3 International Conventions, Protocols and Agreements

The following table presented the list of the main international and regional conventions which Azerbaijan has ratified over years and are relevant to the Project. Many of the international ones are incorporated into the EPs, IFC PSs, EBRD PRs, ADB Safeguard Policy and associated guidance.

Table 4-4: International and regional conventions

International and Regional Convention	Year of Ratification
International Labour Organization (Fundamental)	
C029 - Forced Labour Convention, 1930	1992
C087 - Freedom of Association and Protection of the Right to Organise Convention, 1948	1992
C098 - Right to Organise and Collective Bargaining Convention, 1949	1992
C100 - Equal Remuneration Convention, 1951	1992
C105 - Abolition of Forced Labour Convention, 1957	2000
C111 - Discrimination (Employment and Occupation) Convention, 1958	1992
C138 - Minimum Age Convention, 1973 Minimum age specified: 16 years	1992
C182 - Worst Forms of Child Labour Convention, 1999	2004
Pollution prevention	
Stockholm Convention on Persistent Organic Pollutants	Acceded in 2004
Convention on the Transboundary Effects of Industrial Accidents*	Acceded in 2004
Basel Convention on the Control of Transboundary Shipment of Hazardous Wastes	2001
Kyoto Protocol, 1997	Acceded in 2000
UN Convention on the Protection of the Ozone Layer (Vienna Convention)	Acceded in 1996
Montreal Protocol on Substances that Deplete the Ozone Layer, 1987	Acceded in 1996
United Nations Framework Convention on Climate Change, 1992	Acceded in 1992

International and Regional Convention	Year of Ratification
UNECE Geneva Convention on Long-Distance Transboundary Air Pollution*	2002
UN Convention on Control of Transboundary Movements of Hazardous Wastes and their Disposals	2001
International Carriage of Dangerous Goods by Road*	2000
Espoo Convention* (To promote environmentally sound and sustainable development through the application of ESIA, especially as a preventive measure against transboundary environmental degradation)	Acceded in 1999
Aarhus Convention* (To guarantee the rights of access to information, public participation in decision-making and access to justice in environmental matters)	Acceded in 2000
Biodiversity Protection	
UNESCO Convention on Wetlands of International Importance especially as Waterfowl Habitat / RAMSAR Convention	2001
UN Convention on Biological Diversity, 1992	2000
Bern Convention on conservation of wild flora and fauna and their natural habitats	In force since 2002
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	1999
Cultural Heritage	
Convention for the Safeguarding of the Intangible Cultural Heritage. Paris 2003	2007
Convention concerning the Protection of the World Cultural and Natural Heritage. Paris, 16 November 1972.	1993
European Convention on the Protection of the Archaeological Heritage	2000
Human Rights	
European Convention for the Protection of Human Rights and Fundamental Freedoms	2002
UN Convention on the Elimination of All Forms of Discrimination against Women	1995
UN Convention against Torture and Other Cruel, Inhuman or degrading treatment or punishment	1996
UN International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families	1999
UN International Covenant on Economic, Social and Cultural Rights	1992

International and Regional Convention	Year of Ratification
UN Convention on the Rights of the Child / Protocol Faculty in connection with the participation of children in armed conflicts	1992/2002
UN Convention on the Elimination of All Forms of Racial Discrimination	1996
Regional Framework Convention for the Protection of National Minorities	2000
UN Convention on the Rights of Persons with Disabilities	2009
UN International Covenant on Civil and Political Rights	1992
The high-level conference on the future of the European Court of Human Rights. Interlaken Declaration	2010
The high-level conference on the future of the European Court of Human Rights. Izmir Declaration	2011
The high-level conference on the future of the European Court of Human Rights. Brighton Declaration	2012

*UNECE agreement; Azerbaijan became a member of the UNECE in 1993. The major aim of the UNECE is to promote pan-European integration through the establishment of norms, standards and conventions.

4.4 WB ESF Environmental and Social Standards

Sub-projects to be supported by the World Bank through Investment Project Financing under AZURE and by the GoA are required to meet the following Environmental and Social Standards (ESSs). The WB also requires the associated facilities to meet the WB's E&S requirements through Environmental Social Due Diligence (ESDD) and corrective measures that will be applied to ESIA/ESMP to be developed for GoA funded project:

- **Environmental and Social Standard 1: Assessment and Management of Environmental and Social Risks and Impacts -** This establishes the importance of integrated assessment to identify the social and environmental impacts, risks, and opportunities in the project's area of influence. This standard requires that social and environmental assessment and management systems are in place for managing social and environmental performance throughout the project life cycle. Its main elements include: (i) social and environmental assessment; (ii) management program; (iii) organizational capacity; (iv) training; (v) stakeholder engagement; (vi) monitoring; and (vii) reporting.

- **Environmental and Social Standard 2: Labor and Working Conditions -** It requires that the worker-management relationship is established and maintained, compliance with national labour and employment laws and safe and healthy working conditions are ensured for the workers. This standard is very important as the project will employ workers to execute the project.

- **Environmental and Social Standard 3: Resource Efficiency and Pollution Prevention and Management -** This gives an approach to pollution prevention and abatement in line with

Internationally accepted technologies and practices with objectives to a) avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from activities; and b) promote the reduction of emissions that contribute to climate change. Under this standard, a project is required to avoid, minimize, or reduce adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities. This standard is relevant in that there is a possibility of pollution into the water resources as well as air quality.

- **Environmental and Social Standard 4: Community Health and Safety –** It outlines the responsibility to be undertaken by the client to avoid or minimize the risks and impacts to the community's health, safety and security that may arise from project activities. The project activities for the AZURE Project are likely to cause health and security risks if not managed properly.

- **Environmental and Social Standard 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement -** This standard requires that the project does not result in involuntary resettlement or at least, if unavoidable, it is minimized by exploring alternative project designs. It also requires that the project ensures that social and economic impacts from land acquisition or restrictions on affected persons' use of land are mitigated. The AZURE Project may involve the acquisition of land.

- **Environmental and Social Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources –** This standard aims to protect and conserve biodiversity, the variety of life in all its forms, including genera, species and ecosystem diversity and its ability to change and evolve, which is fundamental to sustainable development. The AZURE Project will try to avoid or mitigate threats to biodiversity arising from project activities and where this cannot be avoided relevant mitigation measures will be in place.

- **Environmental and Social Standard 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities –** This standard is not relevant as there are no indigenous peoples who meet the definition of this Standard in Azerbaijan.

- **Environmental and Social Standard 8: Cultural Heritage -** It aims to protect the irreplaceable cultural heritage and to guide project proponents on protecting cultural heritage in the course of project operations. In cases where the project finds items of cultural importance, notification procedures will have to be followed to ensure protection of cultural heritage of the area and the country.

- **Environmental and Social Standard 9. Financial Intermediaries –** This standard is not relevant as The Project does not support any financial intermediaries.

- **Environmental and Social Standard 10: Stakeholder Engagement and Information Disclosure:** This ESS recognizes the importance of open and transparent engagement between the Borrower and project stakeholders as an essential element of good international practice. Effective stakeholder engagement can improve the environmental and social sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation. The proposed AZURE project will require extensive stakeholder engagement because its success will depend on how it is received by the communities. In addition, its design will have to be informed by the involvement of the affected communities and other stakeholders.

In accordance with the WB's Environmental and Social Framework (ESF), the WB assesses the environmental and social risk of AZURE as **Substantial**, indicating that the potential adverse environmental and social risks and impacts are site-specific, largely reversible, and can be readily mitigated through standard management practices. This classification is due, in part, to the sensitive environments that may be affected, and the need for land acquisition and involuntary resettlement. The scoping process identified key risk areas including habitat disruption, air and water quality degradation, and impacts on local communities. These risks were assessed through preliminary site visits, stakeholder consultations, and baseline environmental and social data collection. Mitigation strategies will be developed in alignment with World Bank Environmental and Social Standards (ESS), particularly ESS1 (Assessment and Management of Environmental and Social Risks and Impacts) and ESS4 (Community Health and Safety), to ensure sustainable and responsible project implementation.

4.5 Gap analysis: World Bank's ESS and Azerbaijan's Legislation

The Table 4-5 below provides an analysis of the WB's Environmental and Social Standards (ESSs) relevant to AZURE in comparison with relevant Azerbaijani legislation. As noted, the more stringent of the requirements will apply.

Table 4-5: High-level summary of key gaps between the Bank's requirements and Azerbaijan's requirements

ESS &Topic	*Major requirements*	*Key requirements/gaps in Azerbaijan Legislation*	*Rules to be applied to the project*
ESS 1: Assessment and Management of Environmental and Social Risks and Impacts			
Scope of application	• ESSs apply to Associated Facilities to extent of Borrower's control/influence	• Associated facilities not covered by Azerbaijan EIA law	• An ESIA covering the entire project prepared for this project
E&S Assessment	• E&S screening is required for all activities financed under the WB loan; • E&S impact assessment (ESIA), is required for all activities involving high and substantial risks of impact on social and physical environment; • equal requirements for assessment and management of social and environmental conditions and impacts; • Application of national framework, ESSs, EHSGs is required; • Offset significant residual impacts; • Sets up differential measures for vulnerable or disadvantaged people; • Consider E&S requirements for primary suppliers	• E&S screening is required only for the listed in Annex I of the law of EIA; • E&S impact assessment (EIA) is required for the activities provided in Annex I of law of EIA, and those included Annex I and determined as subject to EIA according to the screening procedure; • Law of EIA has much less emphasis on social conditions and impacts, however includes a provision on complex assessment of social and economic impacts. • Law on Protection of Public Health partly fill this gap, but do not fully cover social impacts mainly focusing on assessment of health impacts • Application of EHSGs is not required; • Do not offset significant residual impacts; • No differential measures for vulnerable and disadvantaged people are provided; • E&S requirements for primary suppliers are not considered • No coverage of primary suppliers	• ES screening is performed for all activities in accordance with ESS1 • An ESIA was prepared for this project • Social impacts and mitigation measures are included in the ESIA and E&S management and monitoring plans • Implementation of EIAs will be monitored in the project • In accordance with the ESIA, residual impacts will be mitigated where necessary • The project will take differential measures to ensure that vulnerable and disadvantaged groups are not disproportionately affected and can benefit equitably from the project. • The project considers requirements for key suppliers
Project monitoring & reporting	• Permanent monitoring of the activities proportionate to nature of project, risks and impacts, and application of measures as per ESMP is required; • Several levels and timing of reporting, including to the World Bank is required	• Permanent monitoring of the activities and application of measures as per ESMP is not required. Monitoring is carried out randomly; • Majorly focused on quantitative monitoring paying less attention to other performance and compliance issues; • Requirement for reporting and its timing is determined by environmental decision, no permanent reporting on ESMP implementation is required	• As outlined in this document, all activities will require ongoing E&S monitoring and reporting. • Performance and compliance monitoring will be subject to particular attention throughout the project

ESS &Topic	***Major requirements***	***Key requirements/gaps in Azerbaijan Legislation***	***Rules to be applied to the project***
Stakeholder engagement and information disclosure	• For all projects involving E&S risks of impacts and benefits as well, information disclosure and engagement of the stakeholders is required through the life cycle of the project	• The EIA Law requires disclosure of information and public involvement during the EIA period. There is no requirement to involve stakeholders throughout the project life cycle • The processes required by law concerning public participation and consultations are also more limited under national practices than those envisioned by ESS1, not specifying, for example, engagement with academia and NGOs.	• For this project, stakeholder engagement will adhere to both national regulations in Azerbaijan and the World Bank's Environmental and Social Framework (ESF). In Azerbaijan, stakeholder engagement is governed by the Law on Environmental Protection and the Public Participation in Decision-Making Process Law, which mandate public consultations and information disclosure for environmental projects. These national requirements align with the World Bank's Environmental and Social Standard 10 (ESS10), which emphasizes meaningful consultation, timely disclosure of relevant project information, and ongoing communication with stakeholders throughout the project lifecycle. To ensure compliance, the project will implement a Stakeholder Engagement Plan (SEP) that incorporates both local legal requirements and ESS10 guidelines, focusing on inclusive engagement, addressing stakeholder concerns, and ensuring transparency and accountability in the decision-making process.
ESS2: Labor and Working Conditions			
Scope of application	• ESS2 applies to workers employed by Azerenerji who work on the project and to contracted workers, primary	• Labor code of Azerbaijan applies to an employer's direct employees and contracted workers	• LMP was developed for the Project which will be applicable to all workers related with Project and its sub-projects

ESS &Topic	Major requirements	Key requirements/gaps in Azerbaijan Legislation	Rules to be applied to the project
	supply workers, and community workers		
Working conditions and management of labor relations	• Written labor management procedures • Terms and conditions of employment • Nondiscrimination and equal opportunity • Worker's organizations	• Written employment contract required, including procedures and employment conditions • Specific nondiscrimination and equal opportunity requirements • Organizations are allowed • Government's moratorium on labor inspections since November 2015, impedes active supervision or enforcement mechanism to monitor labor regulation implementation or apply remedial actions as needed to labor	• LMP was developed for the Project which will be applicable to all workers related with Project and its sub-projects
Worker Health and Safety	• ESF provides detailed requirements for Labor and Working Conditions and application of World Bank Group and sector-specific EHS Guidelines is required; • Clear clarifications of overtime work, compensation and benefits, working conditions is required;	• Azerbaijan's Labor Code are aligned with the ESF's standard for Labor and Working Conditions, but the Labor Code lacks an enforcement mechanism; • Clear Legal provisions on overtime work, compensation and benefits, assessment of young workers' working conditions are not provided; • No requirement for establishment of grievance mechanisms for employees;	• Lack of requirement to establish grievance mechanisms for employees; • The OHS requirements of national legislation and ESS2 will be followed as specified in the Project LMP and EMP
Occupational Health and Safety (OHS)	Measures relating to occupational health and safety applicable to the Project: • Apply World Bank Group General and sector-specific EHS Guidelines • Requirements to protect workers, train workers, document incidents, emergency preparation, addressing issues • Provide safe working environment	• New (2018) law is generally in line with WB requirements but implementation requirements are not yet fully developed • Current legislation does not set minimum requirements for worker accommodations although it does require per diem for work at distances from home; the amount is low and payments over that level is subject to taxation. OHS-related risks and non-compliances beyond the supervision by government authorities due to above said moratorium.	• Provisions of LMP will be applied to the Project related works • Expected lifting of the moratorium will enable for supervision and enforcement of labor legislation in line with good international practice.

ESS &Topic	***Major requirements***	***Key requirements/gaps in Azerbaijan Legislation***	***Rules to be applied to the project***
	• Workers allowed to report safety issues and refuse to work under certain circumstances • Provide appropriate facilities (canteens, toilets, etc.) and ensure accommodations meet needs of workers • All employers to collaborate on applying OSH requirements • Monitor OSH performance		
Protecting the work force	• Child labor • Forced labor	• The minimum working age in Azerbaijan is 15, children under 18 are not allowed to do dangerous work. • Employment is allowed between 15-18 years (with permission of parents/guardians). • A stricter application of the terms of the law is required.	• LMP was developed for the Project which will be applicable to all workers related with Project and its sub-projects • In this Project, employment will be offered to those who are at least 18 years old to work in AZURE project related work which may have hazardous potential. • Given that the Labor Code will be followed, which also prohibits child and forced labor, the risks related to labor flows and related gender-based violence (GBV) and labor resources, including child labor, are low. Mitigation measures to address GBV risks are included in the Company's Social Responsibility Policy and Discrimination, Harassment and Retaliation Policy. The LMP includes a generic sample Code of Conduct to be adopted by all contractors and other employers in the Project.
Contracted workers	• Reasonable efforts to verify contractors have labor management procedures to	• Azerbaijan national law applies to contracted workers including employees of subcontractors	• Grievance mechanism will be developed for contracted workers specified in the Project LMP and EMP

ESS &Topic	***Major requirements***	***Key requirements/gaps in Azerbaijan Legislation***	***Rules to be applied to the project***
	meet requirements of ESS2 (except those that apply to community and primary supply workers) • Procedures for managing and monitoring performance • Access to grievance mechanism		
Community workers	• Requirements for working conditions and OHS applied to community labor	• No such requirements	• Provisions specified in LMP will be applied to community workers
Primary supply workers	• Depending on level of GSE/contractor control/influence assess risk of child labor, forced labor, and safety issues and require suppliers to address significant risks	• No such requirements, although Azerbaijan law would apply to the suppliers	• Provisions specified in LMP will be applied to primary supply workers
ESS3: Resource Efficiency and Pollution Prevention and Management			
Resource Efficiency			
Scope of application	• Borrowers must apply feasible resource efficiency and pollution prevention measures in accordance with mitigation hierarchy	• No specific requirements, however Azerbaijan law is generally consistent with EU legislation and directives	• Project will follow EHSG requirements.
Energy use	• Adopt measures in EHSGs if project is significant energy use	• There are not specific standards and rules for the efficient use of energy.	
Water use	• Assessment of water use needs and related impacts to the environment and communities and adopting relevant mitigation measures is required	• National legislation prioritizes municipal water supply for domestic consumption over other types of water use. No specific requirements and principles of water sharing and prioritization (e.g. for irrigation, power generation, etc.) are stipulated explicitly.	• Water use needs and associated impacts are assessed in the current ESIA and appropriate mitigation measures consistent with ESS3 will be implemented
Raw material use	• Use GIIP to reduce significant resource usage	• No specific requirements.	• Not relevant for this project and no action will be considered for this item.
Pollution prevention and management			

ESS &Topic	***Major requirements***	***Key requirements/gaps in Azerbaijan Legislation***	***Rules to be applied to the project***
General requirements	Avoid, minimize, and control release of pollutants, apply the more stringent of EHSGs and national law Historic pollution and non-degradation requirements	In general, requirements are consistent with ESS	
Management of air pollution	• Requires assessment of potential air emissions and implementation of technically and financially feasible and cost-effective options to minimize emissions for all type activities	• The requirement for assessment of potential air emissions and implementation of relevant mitigation measures for the activities where stationary air pollution sources do not exist, are not established;	• The project assesses potential air emissions and will implement technically and financially feasible and cost-effective options to minimize emissions for all types of activities.
Management of hazardous and non-hazardous wastes	• Apply mitigation hierarchy to waste management • National and international conventions for hazardous waste management and movement • Verify hazardous waste management contractors are licensed and disposal sites operate to meet standards	• *Mechanisms for non-hazardous waste separation and management are not developed* • No significant gaps, but enforcement is not consistent • No specific requirements to verify contractor haulers or disposal sites	• A mitigation hierarchy will be applied to waste management • Contractors will be requested to develop Waste Management Plan reflecting consistent best international practice
Management of chemicals and hazardous materials	• Minimize use of hazardous materials Avoid use of internationally controlled materials	• No gaps identified. Little or no relevance to this project.	
ESS4: Community Health and Safety			
Community health and safety			
Community health and safety	• Evaluate risks to community health and safety and apply mitigation hierarchy and GIIP to reduce risks • Consider third-party safety risks in designing infrastructure and	• EIA law requires assessment and control • No specific requirements for design, or GIIP • No services to be provided • General traffic laws apply, and EIA law requires assessment of risks • No specific requirement for ecosystem services	• Projects' Environmental and Social Management Plans (ESMPs) will should include requirements for establishing a code of conduct for all project staff that includes sexual exploitation,

ESS &Topic	***Major requirements***	***Key requirements/gaps in Azerbaijan Legislation***	***Rules to be applied to the project***
	equipment, with regard to high-risk locations • Ensure safety of services provided to communities Identify traffic/road risks, assess risks if needed, consider safety in fleet decisions, take *measures* to protect public • Assess and avoid *impacts* on provisioning and regulating ecosystem services as appropriate • Avoid or minimize potential for disease transmission and communication, considering vulnerable groups • Address risks to community of hazardous materials management • Prepare of and respond to emergencies, consider in EIAs, prepare response plans	• No specific requirements for labor influx, including genderbased violence, communicable diseases, etc. • General health requirements generally meet ESS, but no requirement for vulnerable groups • Detailed requirements for emergency planning	abuse, and harassment (SEAH) prevention and mitigation • The contractors will be requested to draft rules and practices, as well as mechanisms to engage with and inform communities of the potential risks and hazards early in the project cycle and throughout implementation.
Security personnel	• Assess and address risks of security arrangements • Apply principles of proportionality, GIIP, and law • Verify contracted workers are not implicated in past abuses and are trained • Investigate incidents, report unlawful acts to authorities	• No specific requirements, however limitations on armed security personnel	• Unarmed security personnel (guards) will be provided in all construction camps during implementation.
ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement			

ESS &Topic	***Major requirements***	***Key requirements/gaps in Azerbaijan Legislation***	***Rules to be applied to the project***
Applicability	• Assessment of needs for Land Acquisition, Restrictions on Land Use and Involuntary Resettlement during ESIA process is required; • Applies to permanent and temporary displacement, listing types of infringements • Assessment of impacts, compensation and rehabilitation measures consistent with ESS5 will be applied, as outlined in the Project Resettlement Action Plan. • Applies to land users (formal and informal) and owners	• Assessment of needs for Land Acquisition, Restrictions on Land Use and Involuntary Resettlement during EIA process is not required. Only environmental impacts resulting to social impacts are included; • Applies only to the legal and 'legalizable' owners (i.e., ones with legitimate claims to land and property that may be registered under national law), not to illegal land users	• Assessment of impacts, compensation and rehabilitation measures consistent with ESS5 will be applied, as outlined in the Project's Resettlement Action Plan.
ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement			
General	• Design project to avoid/minimize displacement; • Provide replacement cost and assistance (including livelihood restoration), disclose standards, offer land-for-land where possible, pay compensation before displacing people where possible; • Engaged with affected communities, including women and other vulnerable groups; • Establishment of GM is required;	• No specific requirement to avoid displacement • Provide replacement cost and offer land for-land payments where possible, no requirements for livelihood restoration or other allowances; • No requirements for public consultations, and no additional requirement to women and other vulnerable groups; • No requirement for establishment of GM (beyond measures envisioned in the Administrative Code of Azerbaijan); • No requirements for cut-off dates, notices; detailed plan and monitoring; • No requirement for displacement audit	• As outlined in the Project Resettlement Action Plan, ESS5-compliant impact assessment, compensation and rehabilitation measures will be implemented. • The complaint handling mechanism will be created and implemented by Azerenerji JSC in accordance with ESS5

ESS &Topic	***Major requirements***	***Key requirements/gaps in Azerbaijan Legislation***	***Rules to be applied to the project***
	• Census, cut-off dates, notices; detailed plan and monitoring is required; • Require audit if significant displacement		
Displacement	• Detailed requirements for assessment of physical and economic displacement, including special consideration for vulnerable people consultations, livelihood restoration and development relevant mitigation measures	• Less detailed requirements for physical displacement • Much less detailed requirements to address economic displacement, and no special consideration for vulnerable people	• Assessment of impacts, compensation and rehabilitation measures consistent with ESS5 will be applied, as outlined in the Project Resettlement
Collaboration with other responsible agencies or subnational jurisdiction	• Provides requirements for all involved agencies to be involved and support PIU in Land Acquisition and Involuntary Resettlement procedures, including development and implementation of Resettlement Action Plan (RAP)	• For Land Acquisition and Involuntary Resettlement procedures involvement of other parties are also required, but specific collaboration and support requirements are not provided	• Assessment of impacts, compensation and rehabilitation measures consistent with ESS5 will be applied, as outlined in the Project Resettlement Action Plan
Grievance handling	• Complaints and grievances are resolved with community participation at the Grievance Commission (GCC), Local government bodies and NGOs and/or Community Based Organizations (CBOs) at the local level.	• Grievance Redress Committee (Land Acquisition for State Purposes - TDEA Act, Section 75, 2010) will be appointed in large scale projects as necessary. The Executive Body, Land Acquisition Group, Supervisory Body, local Executive Authority, municipalities and the PIU shall receive, investigate and resolve complaints and grievances.	• This project implies compliance with ESS5

ESS &Topic	***Major requirements***	***Key requirements/gaps in Azerbaijan Legislation***	***Rules to be applied to the project***
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources			
General	• ESS 6 classifies habitats into transformed, natural and critical habitats. ESS requirements apply to all groups equally and requires relevant mitigation and compensation measures for expected impacts; • Sets strict requirements for affecting critical habitats, requires Biodiversity Management Plan (BMP)	• Azerbaijan has a strong regulatory framework for protecting, conserving, and restoring biodiversity. However, less attention is given to preserving habitats. There is no differentiated approach for transformed, natural, and critical habitats • No requirements for affecting critical habitats and developing BMP	• ESS6 requirements will apply to the Project, including assessment of critical habitats and development of a BMP where applicable
Primary suppliers	• Requirements when Borrower purchases natural resource commodities	• Not relevant for this project	
ESS7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities			
Communities			
	Not applicable for the project		
ESS8: Cultural Heritage			
Application	• Covers tangible and intangible (limited) cultural heritage, whether legally protected or not and whether previously identified or not	• Equivalent applicability. Intangible cultural heritage can be registered, and it is protected similarly to other cultural heritage objects, although assessments for impacts is not generally not required or practiced.	• The alignment of OHLs will be designed in a manner to avoid encroachment with tangible and intangible (limited) cultural heritage

ESS &Topic	***Major requirements***	***Key requirements/gaps in Azerbaijan Legislation***	***Rules to be applied to the project***
General	• Requires development and following the chance find procedure if a find is encountered; • Requires involvement of Cultural Heritage experts if project provides risks of impacts to the monuments of Cultural Heritage	• Azerbaijan Law on Cultural Heritage provides required procedures in case of chance findings. No requirements for developing project specific chance find procedures	• No impact on cultural heritage has been identified during the project development, the prospecting procedures will be carried out as described in the current ESIA and in accordance with ESS8.
Stakeholder consultation and identification of cultural heritage	• Identify and consult with affected and interested stakeholders • Maintain confidentiality if needed • Allow continued access to affected sites	• No specific requirements for stakeholder identification and consultation • No provisions for confidentiality	• Azerenerji will consult with cultural heritage protection agency with inquiry of information on presence of culturally important objects along the OHL's alignment
ESS9: Financial Intermediaries			
	Not applicable for the project as the Project does not have any financial intermediaries		•
ESS10: Stakeholder Engagement and Information Disclosure			
Requirements	• Engage stakeholders throughout project life cycle, determine how they wish to be engaged Provide stakeholders with information, Maintain documented record of engagements	• Basic legal background exists in Azerbaijan concerning public participation and information disclosure. • ESIA legislation requires scoping as well as disclosure of and consultation on EIA	• SEP prepared for the Project will be followed throughout the implementation of the Project
•			

ESS &Topic	***Major requirements***	***Key requirements/gaps in Azerbaijan Legislation***	***Rules to be applied to the project***
Engagement during project preparation	• Requires identification and analysis of stakeholders, including disadvantaged or vulnerable groups; • Disclosure, timing of consultations, measures for disadvantaged or vulnerable groups, etc. preparation of a Stakeholder Engagement Plan (SEP) with detailed requirements is required; • Early disclosure of information to allow consultation in design phase • All stakeholders will be meaningfully consulted and their input will be taken into account during the design and implementation stages of the project.	• Absence of special requirements for stakeholder identification and analysis; • Stakeholder engagement and information disclosure requirements are included in the screening, scoping and EIA process. SEP development is not required; • Disclosure and consultation are not required at the initial design stage	• Stakeholders, including vulnerable and disadvantaged groups, were identified and analyzed during project development. • The Engagement of Stakeholders (SEP) was prepared in accordance with the guidelines of ESS10. • As outlined in the project's SEP, meaningful consultation and information will be shared with stakeholders throughout the life of the project.
Engagement during project implementation and external reporting	• Engagement and disclosure of information to continue throughout implementation, following Plan	• No similar requirement	• SEP prepared for the Project will be followed throughout the implementation of the Project
Grievance Redress Mechanism General	• Build and implement a fast, effective, culturally appropriate and flexible GM;	• Absence of requirements for establishment and maintenance of GRM; • Only official correspondence and claims are recorded and responded to.	• The AZURE project will operate a grievance redress mechanism in accordance with the requirements of ESS10 and as described in SEP.

ESS &Topic	***Major requirements***	***Key requirements/gaps in Azerbaijan Legislation***	***Rules to be applied to the project***
	• Both informal and formal complaints should be dealt with equally. Procedures for handling anonymous complaints are required		• A GRC will be formed by Azerenerji-PIU at the local level which shall consist, as a minimum, of representatives from: (i) the people, through recognized local leaders (e.g., officials of local executive power); (ii) the Contractor; (iii) Owner's Engineer (OE), to represent Azerenerji-PIU). The GRC will act as the mediator between aggrieved parties and will make efforts to resolve conflicts through mutual consent. • The court of the law will be the last resort. In principle, the Project-Affected Parties can appeal to a relevant court anytime they disagree with the activity or inaction of the Project Implementors. • The protocols and procedures for serious grievances will be developed

5. THE ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT PROCESS AND METHODOLOGY

The environmental and social risk of the Project is rated as Substantial, which requires undertaking a full Environmental and Social Impact Assessment (ESIA) and preparing an Environmental and Social Management Plan (ESMP). The main purpose of the ESIA is to determine whether it is environmentally, socially, technically and economically feasible to develop and implement the Project. The main objective is to identify and avoid, minimize and manage potential adverse environmental and social impacts whilst enhancing positive impacts. The main steps of the ESIA are as follows:

Stage 1: Scoping
This is a stage where an environmental and social scan of potential issues is evaluated through a consultative exercise. This is where the public is informed about the project. The exercise helps to get the public's comments/concerns and also assist to identify people likely to be affected by the development. The public consultation informs the ESIA process of environmental social issues and other environmental concerns which may arise. It is of paramount importance to obtain contributions from the public or interested parties which will ensure that all impacts that may arise from the project, be they negative or positive, are adequately addressed.

Stage 2: ESIA/ESMP
The second stage of the process includes conducting surveys and compiling an ESIA report. Various surveys are conducted such as socio-economic surveys which is a continuation of consultations with the community through questionnaires, interviews etc. All the information collected is then used to compile an ESIA report. The ESIA report identifies positive and adverse impacts that the project is likely to have on the environment. An ESMP is then developed to propose measures to enhance positive impacts and minimize or prevent adverse impacts. The ESIA and ESMP reports are submitted to the World Bank for review. Once the WB is satisfied that the reports adequately addresses all impacts of the project, the reports are taken for public review.

Stage 3: Public Review
This involves review of the prepared ESIA/ESMP document to ensure that all public comments and environmental issues have been addressed. After review by the WB, documents are circulated in strategic places for review by interested and affected (IAPs). This helps to ensure that concerns that were raised during stage 1 are adequately addressed in the ESIA. When the EEA is satisfied that all public concerns about the project have been adequately addressed in the ESIA, an Ecological Examination Opinion is issued by the relevant government institution.

The process outlined by the local legislation is aligned with the WB requirements. Further Consultations will be carried out as outlined in the Environmental and Social Commitment Plan (ESCP) developed for this project.

5.1 Screening Assessment

Key aspects considered in the screening assessment include the Project's scale, nature of activities, potential environmental and social impacts, stakeholder engagement, and regulatory context. The Project area is primarily rural and semi-desert zone. There are nearby communities in vicinity of sub-project 2 and sub-project 3. Some of the OHLs will pass through the protected areas.

The following methodology has been applied for initial screening and collection of baseline information important for the project:

- Screening and categorization of the project by Azerenerji JSC and the Ministry of Ecology and Natural Resources against Azerbaijan legislation and by the World Bank against World Bank requirements in terms of project categorization and the level of impact assessment needed.
- Preliminary screening of key receptors and potential impacts during the feasibility study carried out in early 2024 by Azerenerji's Power Engineering Institute.
- Detailed study of baseline environmental conditions within and adjacent to the project areas conducted in early 2024.

This Report identified several potential impacts associated with the Project, including but not limited to land use changes, air emissions, water usage, noise, community disruptions, etc. Mitigation measures were proposed to address these impacts, including but not limited to:

- Wherever feasible, when in forest land, placing towers on high ground so that conductors can pass high over trees and not require cutting;
- The rules set by the European Standard EN 50341-1:2012 regarding conductor clearances considering maximum conductor sag and swing due to wind will be applied together with the requirements of Decree No 103 dated 10 June 2005 of Cabinet of Ministers of AR regarding the protection zones of high voltage transmission lines;
- Limiting the construction footprint to the absolute minimum needed. This will include demarcating and marking all construction areas and roads, and training workers to remain within authorized demarcated areas;
- Keeping all construction vehicles and equipment on prepared roads and construction areas and prohibiting moving onto adjacent lands, as well as effective community engagement with regards to traffic management on the existing road network;
- Limiting impacts away from construction zones by controlling drainage and erosion, implementing proper spoil and waste management practices;
- Providing prompt compensation in case of damages to crops or property;
- Siting and operating construction worker camps and laydown sites to minimize disturbance and disruption to local communities;
- Routing the OHLs to avoid displacement as far as possible;
- Designing the OHLs to minimize bird strike and electrocution by implementing International Best Practice regarding provision of bird diverters and consideration of perching sites for large birds such as raptors (insulator spacing etc).

In order to assess environmental and social category of the Project components, a typical screening matrix tailored to the Project specifics was used to assess their likely E&S aspects. It is based on specific environmental and social criteria that reflect the nature, location, sensitivity and scale of the Project components with an aim to support their categorisation. This screening exercise is summarized in the Table below.

Following a comprehensive review and analysis, it has been determined that the project meets the criteria for a full ESIA due to the potential for significant environmental and social impacts that cannot be adequately addressed through the proposed mitigation measures.

Table 5-1: Project screening exercise

Screening item	***Project Components (Sub-Projects)***															
	Sub-Project 1				*Sub-Project 2*				*Sub-Project 3*				*Sub-Project 4*			
	Project phase				*Project phase*				*Project phase*				*Project phase*			
	Construction		*Operation*		*Construction*		*Operation*		*Construction*		*Operation*		*Construction*		*Operation*	
	Yes	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*
1. Location																
Is the project site adjacent to or within any of the following sensitive areas?		X		X	X		X		X		X			X		X
Proximity of people and settlements		X		X		X		X		X		X		X		X
Legally protected area or area proposed of legal protection (e.g. National Park, Monument of Nature, etc.)		X		X	X		X		X		X			X		X
Internationally designated area (UNESCO World Heritage site, Ramsar site, etc.) or internationally recognised area (Emerald site, Important Plant Area (IPA), Important Bird Area (IBA)		X		X	X		X		X		X			X		X
Other areas of conservation interest		X		X	X		X		X		X			X		X
Cultural heritage site		X		X	X		X		X		X			X		X
Significant land occupation		X		X	X		X		X		X			X		X
Is the project location susceptible to extreme natural hazards (earthquakes, landslides,erosion, flooding or extreme or adverse climatic conditions)?		X		X	X		X		X		X			X		X
2. Potential environmental & social impacts																
Will the project use natural resources which are non-renewable or in short supply?		X		X		X		X		X		X		X		X
Will the project cause significant impact on air quality (increase the dust level or level ofair pollutants)?		X		X		X		X		X		X		X		X

Screening item	***Project Components (Sub-Projects)***															
	Sub-Project 1				*Sub-Project 2*				*Sub-Project 3*				*Sub-Project 4*			
	Project phase				*Project phase*				*Project phase*				*Project phase*			
	Construction		*Operation*		*Construction*		*Operation*		*Construction*		*Operation*		*Construction*		*Operation*	
	Yes	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*
Will the project lead to significant risks of contamination of land or water from releases of pollutants onto the ground or into surface waters or groundwater?		X		X		X		X		X		X		X		X
Will the project cause change of surface water bodies, increase water turbidity due torun-off and erosion?		X		X		X		X		X		X		X		X
Will the project lead to risks to any other areas on or around the location which are important or sensitive for reasons of their ecology e.g. priority / critical habitats, wet-lands, watercourses, coastal zone, mountains, forests or woodlands?		X		X		X		X		X		X		X		X
Will the project lead to significant loss of vegetation and/or habitat fragmentation?		X		X		X		X		X		X		X		X
Will the project cause significance visual changes to a valued landscape?		X		X		X		X		X		X		X		X
Will the project cause generation of significant waste quantities?	X			X		X		X		X		X		X		X
Will the project generate significant quantities of hazardous wastes (including PCBs from transformers)		X		X		X		X		X		X		X		X
Will the project cause noise and/or vibration?	X			X	X			X	X			X	X			X

Screening item	***Project Components (Sub-Projects)***															
	Sub-Project 1				*Sub-Project 2*				*Sub-Project 3*				*Sub-Project 4*			
	Project phase				*Project phase*				*Project phase*				*Project phase*			
	Construction		*Operation*		*Construction*		*Operation*		*Construction*		*Operation*		*Construction*		*Operation*	
	Yes	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*
Will the project cause release of electromagnetic radiation?		X		X		X		X		X		X		X		X
Will the project involve use, storage, transport, handling or production of hazardous substances and explosives?		X		X		X		X		X		X		X		X
Will the project cause any permanent and/or temporary land acquisition?		X		X	X		X		X		X			X		X
Will the project cause any physical resettlement?		X		X		X		X		X		X		X		X
Will the project result in social changes (in demography, traditional lifestyles, employment, etc.)?	X			X		X		X		X		X		X		X
Will the project require new access road(s)?		X		X		X		X		X		X		X		X
Will the project cause disturbance to the existing traffic / transportation in the affected area?		X		X		X		X		X		X		X		X
Will the project cause occupational and/or community health and safety risks?	X			X		X		X		X		X		X		X
Will the project cause improvement in regard to the current community health and safety risks?	X		X			X		X		X		X		X		X

5.2 Scoping

Different aspects of the Project are to be considered when assessing the impact of the proposed developments on the biophysical and societal environment. The table below shows the main environmental and socio-economic aspects associated with expansion, construction and operation of the proposed transmission infrastructures (substations and OHLs) that will be addressed in the subsequent sub-project specific ESIAs, covering components to be financed by both GoA and the Bank. Each of these issues is further described in this Scoping Report.

Table 5-2: Main environmental and socio-economic aspects

Topic	Key issues/notes
Climate-related aspects	Climate change assessment - key greenhouse gas emission sources during construction. Since the Project is in its initial development stage and relevant technical / design information for GHG calculation during construction stage of the Project is currently not available (e.g. number of towers, access roads, construction transport, etc.), the calculation of GHG emissions is scoped out from the present ESIA. - Climate resilience assessment – adaptation of the Project to extreme weather events by measures incorporated into the Project design.
Air Quality	- During construction - change of air quality due to fugitive dust (movement of vehicles; preparatory works; earthworks; construction of access roads, and substation and towers; surfacing works) and vehicle exhaust emissions. These are anticipated as not significant and, therefore scoped out from the present ESIA - During operation - not anticipated as significant and, therefore, scoped out from the present ESIA
Geology and soils	- During construction - disturbance of geological deposits due to construction of the Project; risks to the soils (loss of deposits; erosion; pollution risk) - During operation - not anticipated as significant since the Project area is not susceptible to geological hazards (e.g. erosion, landslides, etc.) and, therefore, scoped out from the present ESIA
Water Environment	- During construction - risk to water environment (excavation, pollution risk, physical modification) - During the operation - pollution risk at substation (accidental spillage of transformer oils)
Noise and vibration	- During construction - noise and/or vibration from site clearance, earth-works, construction of access roads, and substation and towers, attachment of conductors as well as the related construction traffic - During operation – operational noise due to "corona discharge"
Biodiversity and natural heritage	- During construction - impacts to biodiversity receptors (loss of habitats, flora and fauna, disturbance of species, risk of forest fires, pollution risk) - During operation – habitat conversion and fragmentation, potential risk to avian fauna (collision risk and electrocution of birds), pollution risk
Landscape	- During construction - temporary physical and visual

Topic	Key issues/notes
	change to the landscape of negligible significance and, therefore, scoped out from the present ESIA - During operation - changes in visual aspects for Project elements which include construction of new structures - not anticipated as significant and, therefore, scoped out from the present ESIA
Waste	- During operation - not anticipated as significant since waste generation is expected to be very small during operational maintenance of the Project and no hazardous wastes (e.g. PCBs) will be generated during operational life of the Project. Therefore, this is scoped out from the present ESIA.
Socio-economic aspects	During Project life: - Positive impacts (improvement of the national / regional power system, employment opportunities during construction, local economy and trading opportunities (delivery and selling of local goods/fruits/vegetables to the workers during construction) - Disturbing agricultural land crossed by the transmission line route can cause economic losses to farmers and reduce agricultural production.
Labour and Working conditions	Impact to workers (labour standards and working conditions, including occupational health and safety) Workers occupational hazards during construction, maintenance, and operation activities occur (e.g.): working at height electrocution hazard contact with live power lines
Community health and safety	Construction traffic Health and safety and security of people / local communities during operation of the Project Construction works Health and safety and security of people / local communities / workers during construction of the Project
Land acquisition and livelihood	- Temporary or permanent acquisition of private assets - involuntary economic resettlement, as well as land-take (arable agricultural land) and restriction on rights of use.
Land use / land conversion	- During construction - land use change, habitat loss, loss of agricultural land due to temporarily and permanent land take - During operation - land use restriction to ensure public safety and safe operation of the Project
Cultural heritage	- During construction - risk of partial or total removal of unknown heritage assets (undiscovered archaeological sites) Access limitation - Temporary restriction of public access to heritage site in Aghsu region, namely Medieval Aghsu Archaeological Tourism Complex due to construction of Navahi-Mingachevir HPP and Navahi –Azerbaijan TPP OHLs

Topic	Key issues/notes
Cumulative effects	Main cumulative impacts - inter-project effects - the effects of a series of other developments of similar type and scale in the vicinity of the Project and effect interaction in the Project itself.
Transboundary effects	Project has no cross-border context and no transboundary impacts shall occur during the Project life and, therefore, scoped out from the present ESIA

5.3 Study corridor

5.3.1. Methodology for detailed environmental and socio-economic survey of the corridor

The desk study was conducted during April-May 2024, followed by field works. For environmental assessment, the 200-meter corridor was assumed to be sufficient to characterize conditions and assess impacts.

Initially, the 200 metre corridor was selected during the design work so that relatively minor changes in the tower positions from their indicative positions would not make a significant difference to the results of the analysis. The study area along a section of the corridor is shown in Figure 5-1. The outer lines show the 200 metre wide corridor, the blue lines show the indicative 60 metre 'safety zone' where no building is permitted, and the green and blue lines show the indicative tower and transmission line locations.

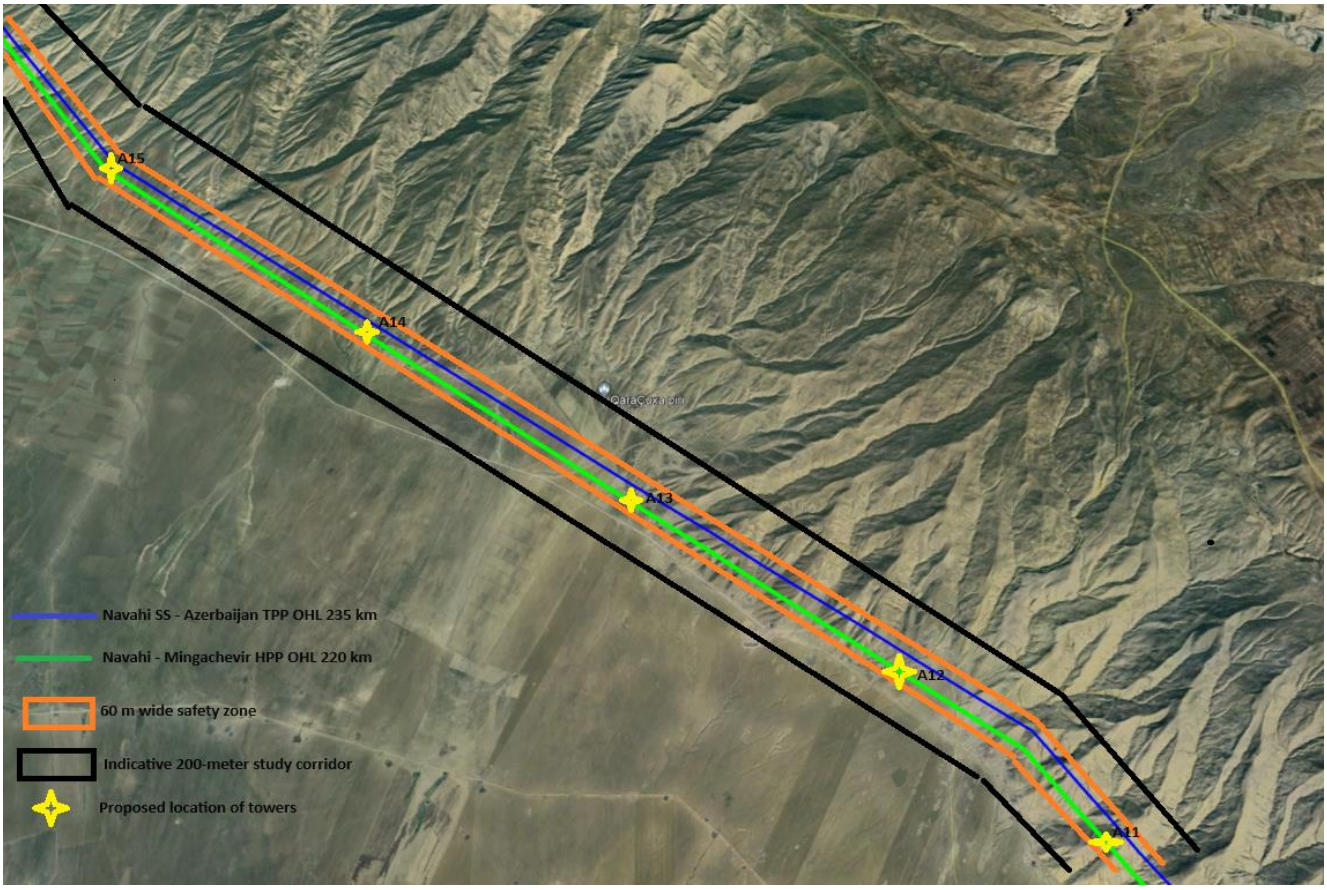


Figure 5-1. Typical Section of the 200-meter study corridor showing the 60-meter Safety Zone

An area of 1,000 m wide corridor along the transmission lines (within 500 m of the centreline of the alignments), including the proposed location of the Navahi substation was used to present the biodiversity baseline in wider context, which is considered as representative and sufficient to identify the current biodiversity status in the broader area and to assess indirect impacts from the Project.

For the purposes of the ESIA Report, the study area within the infrastructure corridor (defined for the purpose of this appraisal as 100 metres wide corridor) will be used for consideration of the direct effects and changes on the current key land use forms (e.g. agricultural land, woodland, urban land, etc.). This zone is based on the land anticipated to be directly affected by the Project, i.e. potentially required temporarily and/or permanently for the construction, operation and maintenance of the transmission lines and where specific land use rules would be established to ensure technical safety of the OHL and protection of people and environment during its operation.

Table 5-5 (5.5.1 Scoping Surveys) outlines the relevant corridors considered for scoping the environmental and social conditions within the study areas during the ESIA scoping activities.

5.4 Stakeholder Engagement

During scoping phase Azerenerji contacted with the following government agencies to inform the scoping process:

- Letter was sent to State Ecological Expertise Agency (SEEA) of MENR for discussing the Scoping Report content and TOR for ESIA
- A meeting was held with deputy chairman of SEEA and relevant staff where the scoping report content and routes of OHLs presented to the audience and raised questions were answered accordingly by PIU staff
- Letter was sent to the State Land and Cartography Committee (SLCC) with the request of submission cadastral information with regard to land ownership status along the proposed alignments of 8 OHLs covered by the Project.
- Letter was sent to the State Land and Cartography Committee (SLCC) with the request of submission new format (national) land title document for assigned territory of Navahi substation based on old soviet type land title document issued to Azerenerji JSC in 1980s for construction of nuclear power station.
- A meeting was held with the management of SLCC to discuss the alignments and establish priorities for submission of information requested for the Project's OHLs
- Letter was sent to the Chief of State Service for Protection, Development and Restoration of Cultural Heritage under the Ministry of Culture with request of submission of available data and list of cultural heritage objects along the proposed routes of OHLs
- Azerenerji applied to State Agency on Protection of Strategical Objects for obtaining technical conditions for crossing the railway lines by OHLs across the Project covered regions. The respective technical conditions were provided by the Agency and transferred to the design team for consideration in design of OHLs
- Azerenerji applied to State Agency on Protection of Strategical Objects for obtaining technical conditions for crossing the railway lines by OHLs across the Project covered regions. The respective technical conditions were provided by the Agency and transferred to the design team for consideration in design of OHLs

- Azerenerji applied to State Agency on Water Reserves for obtaining technical conditions for crossing the river and channels by OHLs across the Project covered regions. The respective technical conditions were provided by the Agency and transferred to the design team for consideration in design of OHLs
- Azerenerji applied to Azerbaijan Railways CJSC for obtaining technical conditions for crossing the railway lines by OHLs across the Project covered regions. The respective technical conditions were provided by the Azerbaijan Railways CJSC and transferred to the design team for consideration in design of OHLs
- Azerenerji applied to SOCAR for obtaining technical conditions for crossing the oil and gas pipelines by OHLs across the Project covered regions. The respective technical conditions were provided by the SOCAR and transferred to the design team for consideration in design of OHLs
- Azerenerji applied to BP for obtaining technical conditions for crossing the oil and gas pipelines by OHLs across the Project covered regions. The respective technical conditions were provided by the BP and transferred to the design team for consideration in design of OHLs
- A meeting was held with chairman of Navahi village municipality to inform the construction of Navahi SS/associated OHLs and discuss their concerns, collect baseline data

For "The Project" there have been different levels of engagement activities in place and for a set of overlapping purposes, including scoping. The engagement for the GoA aspects of the Project, as per national EIA and Land Acquisition requirements, have covered some areas that are common to both the GoA as well as Azure components. As such four community meetings have been held in the Navai village of Hajigabul Region, and Salyan Region. Another set of meetings were held in Bilasuvar and Neftchala Regions. The one conducted in Hajigabul Region covered villages from other sub-Project (mutual sections). While this mutual was for EIA and land acquisition purposes it also covered impact and issues that are relevant for the scoping.

Online meetings were held with the participation of village-level municipality and executive representatives from six other Regions - Aghsu, Goychay, Yevlakh, Aghdash, Shamakhy, Ismaiylly and one town of Mingachevir - covered by the Azure Project, with the participation of Iglim Consultancy, which is working on the preparation of the ESIA for the Azure Project. Basic demographic information, including key socio-economic data, was collected from the participants. Minor discussions on the issue of vulnerability in each village, the criteria for identifying vulnerability according to national procedures and local considerations, and the number of vulnerable people per village were obtained from the participants.

In terms of direct engagement with the local community there has been limited communication. The method followed was for a team of land surveyors (topographic investigation) to follow the alignments of the OHLs. They took photographs of the areas and some limited communication with landowners/land holders. However no detailed or focused engagement with impacted communities has yet taken place.

The scoping report was presented to SEEA and MoC and their recommendations and feedback were collected with their due reflections in the scoping report. Particularly, as per the request of MoC the alignment of Navah-Mingachevir OHLs were shifted to ensure safe distance from Aghsu Medieval Archaeological Tourism Complex. The disclosure of Scoping Report to MENR also resulted with rerouting of Banka-Navahi OHL that was initially designed through Shirvan National Park.

Upon completion of initial scoping disclosure and further consultation the following steps will be undertaken:

- Main ESIA consultation phase for all components;
- Integrated ESIA Disclosure phase.

This is further discussed in detail in the SEP.

5.5 Baseline Data Collection

A comprehensive understanding of existing environmental and social baseline conditions in the Project regions is an essential prerequisite for sound identification and assessment of potential impacts from the proposed sub-projects. Understanding the baseline allows the measurement of changes that would be caused by the Project.

The process for collecting the baseline environmental and social data is based on:

- Desk studies (i.e. legally defined quality standards for environmental media and emission limit values; existing literature, strategic / planning documents, statistics, databases and reports from various relevant organizations; as well as available internet sources and other similar projects).

- Site visits and walkover observations to identify the area of influence (study area) and to collect required supplementary data at substation location and along the OHL corridors (i.e. biodiversity survey; landscape assessment; land-use observation; etc.), as well as benefiting from various field surveys carried out for the purposes of the engineering design.

- Regular communication with the municipalities and executive representatives of the villages crossed by the Project, community consultations with the Project community at the Region and village levels with the participation of various NGOs and representatives of the different social strata.

5.5.1 Scoping Surveys

In order to determine relevant scoping environmental and social conditions within the study areas surveys outlined in the table below were undertaken during the ESIA scoping exercise. The scope of these surveys was determined through desk study and an initial field work as per work undertaken by the topographic team described above. The field surveys were undertaken during April 2024. The findings obtained from these surveys for each relevant topic are reported in respective sections in this Scoping Report.

Table 5-5: Results of scoping surveys

Scoping survey	Goal and Scope
Air quality	Key sources of air emission within 200 m of the centreline of the alignments of the transmission lines and 200 m around the proposed location of the substation - were observed to gain indicative air quality

Scoping survey	Goal and Scope
	baseline situation. There are no measurements of the ambient air quality within the study area or in wider region. Key air pollution source is the traffic network. Other sources of seasonal air pollution in the environment are the air emissions during heating season (in Mingachevir city) and from agricultural activities. No significant industrial facilities are present in the area. The area is not densely populated and is predominantly rural in nature, with an exemption of the sections of the proposed 330 kV OHLs from Navahi to Mingachevir HPP and Navahi – Azerbaijan TPP (Sub-project 1.2) through urban zones in Mingachevir where air quality likely exceeds ambient limit values in particular cases.
Geological and water environment	The geological environment within 500 m wide corridor along the transmission lines (within 250 m of the centreline of the alignments), including the proposed location of the substation was observed. The Neocene and Anthropogenic sediments cover the surface of the plain. The soil of the Project area is composed of grey-brown, grey-meadow, saline soils. The terrain in the study area as a whole is considered as stable, without occurrence of geological hazards (slips and landslides, erosion). Site specific issues may be possible but these were not taken into consideration in this Project development stage. Visual inspections carried out in project site and OHLs' routes witnessed groundwater levels within the expected range for periods of the year when (February-April) the surveys were carried out. In addition, to the already known prominent water bodies that would be affected by the Project, smaller watercourses, with their character of flow (continuous or occasional) were registered.
Noise	Key sources of noise within 2,000 m wide corridor along the transmission lines (within 1,000 m of the centreline of the alignments), including the proposed location of the substation - were observed to gain indicative noise baseline situation. There are no measurements of the environmental noise neither within the study area nor in wider region. Key noise source is the traffic network, as well as agricultural activities. No significant industrial facilities are present in the area. The area is not densely populated and is predominantly rural in nature, with an exemption of the sections of the proposed 330 kV OHLs from Navahi to Mingachevir HPP and Navahi – Azerbaijan TPP (Sub-project 1.2) through urban zones in Mingachevir where background urban noise likely exceeds ambient noise limit values in particular cases.
Land use / land cover	Land cover was assessed within 1,000 m wide corridor along the transmission lines (within 500 m of the centreline of the alignments), including the proposed location of the substation. The land cover was calculated in ArcGIS for both sub-projects, separately. A land cover map was also elaborated and presented in this scoping report. The land cover

Scoping survey	Goal and Scope
	in Sub-project 1 is dominated by agricultural land (40%) and Halocnemetum vegetation (30%). Again, the land cover in Sub-project 2 and Sub-Project 3 is dominated by agricultural land cover types and small percentage of urban and industrial areas. Although the tugay forests are existing in Yevlakh administrative region the OHLs and any other related infrastructure will not encroach the areas covered by tugay forests.
Biodiversity and natural heritage	An area of 1,000 m wide corridor along the transmission lines (within 500 m of the centreline of the alignments), including the proposed location of the Navahi substation was used to present the biodiversity baseline in wider context, which is considered as representative and sufficient to identify the current biodiversity status in the broader area and to assess indirect impacts from the Project. The baseline is determined from the desk-review information, map of ecosystems of Azerbaijan, and biodiversity field surveys. Most of the data on habitats and species presented in this scoping report are from the desktop studies and small part came from field observations. The sub-projects were separately analyzed from the aspect of their vegetation, flora and habitats as well as presence of protected and designated sites (with national or international importance). Habitats were identified according to different classification systems (EUNIS, Ramsar, CLC) and will be classified under the ESIA in accordance with provisions of ESS 6 . Semi-desert habitats are dominated by wormwood (*Artemisia* fragrans), either alone or associated with saltwort (*Salsola* spp) or *Bothriochloa*. Pockets of more typical desert vegetation also occur in this area. Steppe vegetation occurs in the lowlands and foothills around 300 to 700 m and is largely the result of human influence on woodland and shrub habitats. The dominant species are grasses (*Bothriochloa* spp). Rich floristic communities have developed in the *Bothriochloa ischaemum/ Glycyrrhiza glabra* steppes of the lowlands. On the foothill slopes, *Bothriochloa ephemerosa* is mixed with other grasses such as *Festuca sulcata* and *Stipa* spp. Thorny shrubs, notably Christ's Thorn (*Paliurus spina-christii*), are typical. In the western part of the region, small patches of the endemic pine (*Pinus eldarica*) are found. At present, approximately 60% of the agricultural land in the Project area is used for farming (cotton, vineyards, cereals, vegetables). Considerable areas are used for winter grazing pastures for domestic livestock. Riparian forests occur along river banks and floodplain areas beyond the area of influence of the Project. Wing nut (*Pterocarya pterocarpa*) is a characteristic species, but others include the oak (*Quercus longipes*) and white poplar (*Populus alba*). These forests, known as tugay, are threatened throughout the Caucasus, with probably the most intact remaining examples being found along the Kura river in Azerbaijan.

Scoping survey	Goal and Scope
	The project area includes the Shirvan National Park and the Turyanchay State Reserve. There are also the Ahgchala and Mahmudchala wetlands (which are home to migratory birds) in a wider geographical area. The project is designed to avoid direct impacts on these areas.
Landscape	In Azerbaijan, landscapes are divided into mountainous and plain landscapes. Among them, a number of landscape types and subtypes are distinguished. Three landscape types were identified within the study area - 1,000 m wide corridor along the transmission lines (within 500 m of the centreline of the alignments), including the proposed location of the substation: (i) lowland semi-desert landscape; (ii) dry-desert landscape of the plains; (iii) semi-desert landscape of lowlands and plains. These landscape types are described in terms of their appearance, matrix and patches, their connectivity as well as according to their presence in sub-projects.
Social-economic context: Settlements	Generic socio-economic assessment has been undertaken to inform scoping. For the GoA funded Project area basic socio-economic data including main demographic information have been collected on the village level during various community meetings and consultations. Likewise, basic socio-economic data, demographic information and gender representation of the Azure Project traversed community, determination of vulnerability criteria and number of vulnerable people per the Azure Project traversed villages have been collected and analysed. Within the scope of ESIA all potentially affected settlements within the study area - 1,000 m wide corridor along the transmission lines (beyond 200m OHLs corridor), including the proposed location of the substation – will be visited and on-site observation will be performed in order to determine the general way of life of the inhabitants, their way of livelihood provision, dwelling, state of the communal infrastructure, road connections, presence of social facilities and its use, administrative facilities and other features that will successfully ease in proper understanding of the local life and needs/aspirations of these people. The collected data will be recorded and analysed accordingly. The information on village residents collected from executive power representative in each village is used to identify vulnerable people in the villages. Urban settlements are more complex entities, but these techniques were also applied, separately, but to several locations of the affected parts of the Mingachevir city.
Social-economic context: Residential and other properties	For the GoA Project the field surveys conducted by the topographic team along the existing transmission lines, proposed for construction,

Scoping survey	Goal and Scope
	indicated that there are no residential properties that will be directly affected from the Project. However, for the Azure components this still needs to be finally confirmed with the ESIA and RAP. Currently it appears that all nearby dwelling and other objects are at a reasonable distance of at least 50 m from the lines, including 330 kV OHLs Navahi-Mingachevir HPP and Navahi-Azerbaijan TPP (Sub-project 2 and Sub-Project 3) where the alignment of OHLs was shifted to alternative route ensuring a safe distance from urban zone of Mingachevir.
Social-economic context: Vulnerable groups	OHLs pass through non-residential areas, with closest settlement being away from the proposed OHLs (visual observations and measurement from GoogleEarth) to a distance that is not within the prescribed safety zones of the Transmission lines. An assessment of impacts to vulnerable households has not informed scoping and this will be part of the scope of ESIA) . Nevertheless, basic information on the vulnerability criteria and the number of vulnerable people in the villages crossed by the Azure Project was identified through stakeholder consultations and discussions.
Cultural heritage	Identification of cultural heritage sites was informed by Ministry of Culture (MoC) who provided a list of sites that indicate the location of known sites of cultural importance. The presence of the Aghsu Medieval Open Archaeological Museum Complex in the Region of Aghsu was identified as being traversed by the alignment of transmission lines between the Navahi substation and the Mingachevir HPP. The alignment will be shifted to avoid the crossing of the Museum Complex site by the transmission lines, with a closest distance being 200m. The potential risk will be further assessed under the ESIA/ESMP and the ESIA will include a cultural heritage assessment to identity any other cultural heritage – both tangible and intangible – that might be affected. These include seeking information from the State Agency on Protection of Cultural Heritage under MoC as well as consulting with communities to identify sites of importance to them not just on nationally recognised sites.

5.6 Interaction with Design and Decision-Making

The Environmental and Social assessment and detailed design development processes interact with each other, with both being informed by two-way communication, combined with ongoing consultation and discussion with various relevant project stakeholders. The Environmental and Social assessment identifies potential (negative) effects which potentially lead to design refinements to avoid or reduce the significance of those effects. This process of synergy, based on the views / inputs from the E&S assessment, interacts with the design process from the earliest Project development stage. Such approach has informed the design process with relevant early E&S-related proposals in the scope of the process for selection of the preferred Project options, especially for the corridors of transmission lines thus achieving 'mitigation through design' precautionary goal for impact avoidance. This approach will further continue throughout next stages in order to reduce the likelihood of the Project being

designed on a basis that already has built-in negative E&S effects which could have been avoided. The process of synergy allows for the engineering design to duly incorporate the recommendation of the ESIA and ESMP. The ESIA report will also help to get information for local content (workforce).

5.7 Assessment of Impacts and Mitigation

As described in Section I, the scope of works under AZURE comprises 3 components, 6 packages involving 10 separate contracts for plant, construction, installation, management and consulting services. The 6 packages are grouped into 10 lots. The packages are located in 11 regions of Azerbaijan. The scoping review has entailed:

- Site visits to proposed 500/330kV substation and transmission lines' sites
- Discussions with detailed engineering personnel during site visits regarding scope of works locations and alignments of subproject components
- Discussions with chief engineers of substations that will be connected to Navahi ss
- Review of project information provided by the Design Institute
- Professional opinion and experience of WB's International Environment Specialists
- Confirmation with WB regarding the methodology of the ESIA study given the large number and similarity of subproject components with low potential for environmental impacts.
- Discussions with WB project officers including environmental and social specialists

The overall findings of the scoping review are briefly summarized below:

- Proposed new 500/330kV substation are located within the boundaries of land parcel owned by Azerenerji.
- Proposed extensions at substations to be connected with Navahi ss are located within the boundaries of existing substation sites.
- All the existing substation sites and the proposed Navahi substation sites are located in what can be described as industrial, peri-urban or rural areas with low environmental values.
- Significant portion of the proposed new 330kV lines will be constructed along the existing corridors.
- Based on site observations and discussions with design institute the overall project is likely to give rise to moderate temporary environmental impacts that can be easily mitigated.
- A section >40km in length of proposed OHL from Azerbaijan TPP/Mingachevir HPP runs alongside the southern border of the Turyanchay State Reserve, which was established for the protection and restoration of arid-arch light forest and other natural resources; and for the localization of centers of erosion at the foothills. Given the habitat type and its geographic location it may be of value for either resident or migratory bird species.
- There are known to be tugay forests alongside the meandering Kura river downstream of the Mingachevir dam. These forests are threatened throughout the Caucasus, with probably the most intact remaining examples being found along the Kura river in Azerbaijan. *Given the habitat type and its geographic location it may be of value for either resident or migratory bird species.*
- It will be important to design the OHLs following best international industry standards, with inclusion of bird diverters and consideration of perching electrocution risks.

- All construction worker camps and laydown sites will be designed to minimize impacts and disturbance to local communities.
- The section of the 330 kV OHLs Navahi-Mingachevir HPP and Navahi-Azerbaijan TPP (Sub-project 1.2) will pass through the remote urban zone of Mingachevir while following safe distance from residential areas and will not trigger physical displacement.
- The project will trigger land acquisition for footprints of tower supports but physical displacement can be avoided.
- The project will improve local infrastructure in Navahi village due to construction of Navahi ss by creating employment opportunities, paved roads
- The Project will increase investment attractiveness of project covered area where there will be clean energy generated from renewables

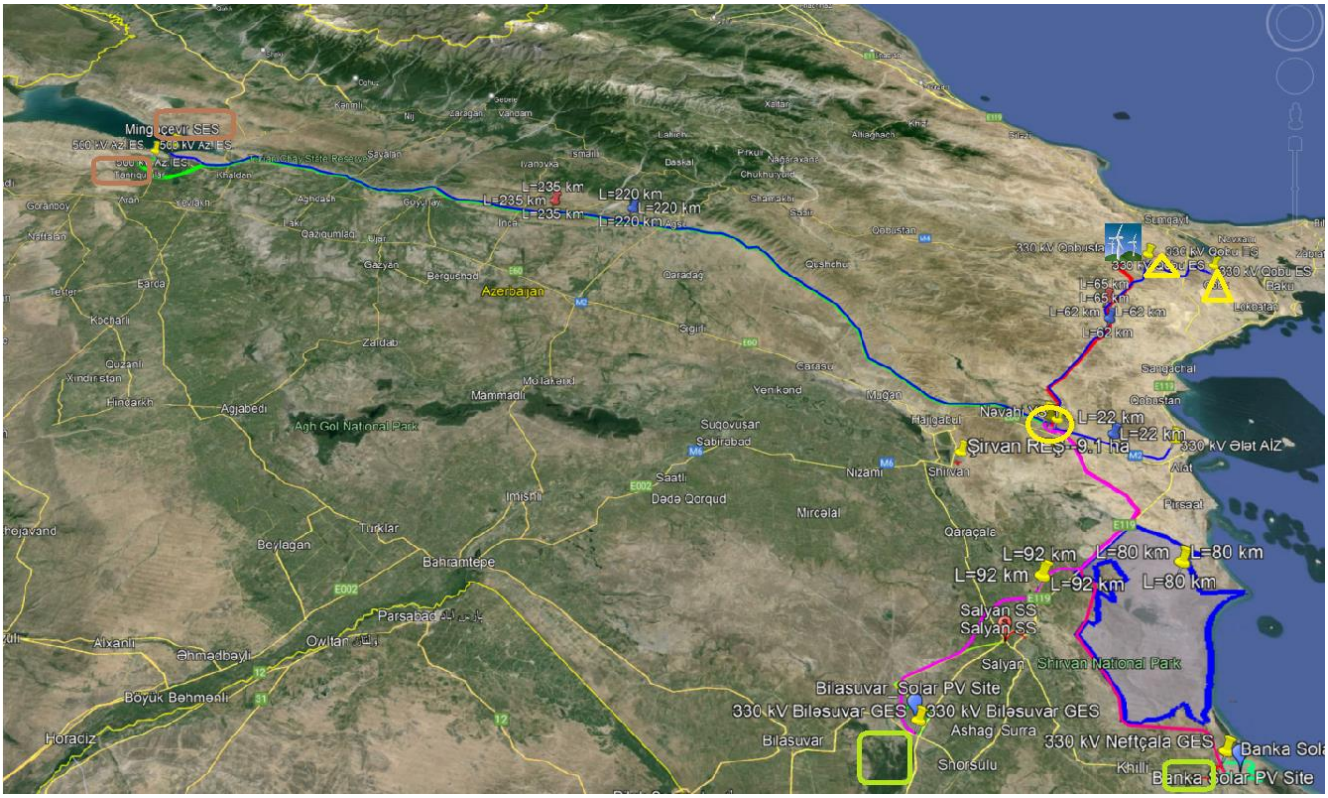
Considering that the Government of Azerbaijan has a requirement to advance the implementation of the project and has determined in consultation with the World Bank that the 330 KV transmission lines and 330 kV substation as a priority to be procured through the state funds as parallel financing, and that the proposed project to be funded by the IBRD loan would be utilized to cover the remaining part of the Project. The activities under both GoA and WB funded parts should be implemented in compliance with respective national regulations and WB's ESF standards. Thus, there will be two site-specific ESIAs/ESMP for GoA funded sub-projects (330 kV side of the 500/330 kV Navahi substation; Bilasuvar SPP - Navahi SS OHL (90 km), Banka SPP - Navahi SS OHL (80 km), Navahi SS – Absheron SS (65 km) to be conducted in accordance national environmental legislation of Azerbaijan subject to endorsement by State Ecological Expertise Agency of the Ministry of Ecology and Natural Resources. An independent E&S due diligence will be arranged by Azerenerji for site-specific ESIAs/ESMPs of GoA funded sub-projects together with corrective actions to be in place prior to start of works.

Azerenerji will prepare separate ESIA and ESMP for the World Bank funded sub-projects in accordance with the Bank's Environmental and Social Framework.

Besides there will be separate ESIAs prepared by Masdar for the construction and operation of solar and wind power plants in Banka, Bilasuvar and Absheron regions.

To ensure cohesion between the ESIAs developed for associated projects, PIU of Azerenerji will adopt a harmonized approach that integrates consistent methodologies, shared data, and aligned objectives across all assessments. This entails the establishment of a central coordination framework that facilitates regular communication and information exchange among the ESIA teams involved in each project. By standardizing baseline data collection, impact assessment criteria, and mitigation measures, the team can create a unified understanding of cumulative and synergistic impacts. Moreover, aligning the stakeholder engagement processes will ensure community concerns and feedback are consistently addressed across all projects, fostering transparency and trust. Regular joint review sessions and integrated reporting mechanisms will further ensure that the ESIAs not only stand as comprehensive individual documents but also collectively contribute to a coherent and holistic environmental and social management strategy.

Impacts and Mitigation Measures Due to Project Location



500 kV Navahi-Az. TPP 235 km
330 kV Navahi-Mingachevir HPP 220 km
330 kV Bilasuvar SPP-Navahi SS 92 km
330 kV Banka SPP – Navahi SS 90 km
Location of 500/330/10 kV Navahi SS
Banka SPP
Bilasuvar SPP
Azerbaijan TPP
Mingachevir HPP

500 kV Navahi SS – Absheron SS 65 km
Navahi SS – Absheron WPP
330 kV Navahi SS – Alat FEZ SS 20 km
330 kV Absheron WPP – Gobu TPP 20 km
Location of Shirvan National Park
Absheron (Gobustan) WPP
Gobu TPP
Absheron SS

Figure 5-2. Location of Project's sub-projects

Sub-project 1: 500/330/10kV Navahi Substation

This subproject involves construction of a new substation within the boundary of the land parcel owned by Azerenerji. The site is located in rural area with low environmental values. No impact on land value is expected.

No encroachment into precious ecological areas or areas of historical / cultural value. There are no significant sensitive receptors including ecologically sensitive areas or historical / cultural monuments nearby the substation site that will be impacted from the construction or operation of the substation.

Interference with other utilities and traffic. As per regulations enacted by GoA, it is mandatory for Azerenerji to seek requisite clearance prior to construction from agencies like departments of railways, roads, telecommunication, and wherever necessary, from aviation authorities that could be affected by the construction of power transmission infrastructure. Given that new substation will be constructed within the boundaries of existing land parcel owned by Azerenerji, no significant interference with other utilities and traffic is expected.

Interference with water drainage patterns. Construction of new substation infrastructure within the boundaries of land parcel owned by Azerenerji will include provision of effective drainage design such that there will be minimal changes to the natural flow of storm water entering and leaving the site. Drainage will be designed to route water runoff from the substation to designated places to avoid flooding of access roads and nearby areas. Storm water management shall conform to governmental agency requirements. No significant impacts on water drainage patterns is expected.

Construction of access roads. The road heading to the brick factory located at 500 meter distance from the Navahi substation is the access road to the Project site which is branched from Alat-Gazakh-Georgian Border Highway. It will be necessary for the access road (app. 150 m) to be asphalt paved along its full length to allow HGV traffic (transport trucks, supply or large equipment, etc) to access the site.

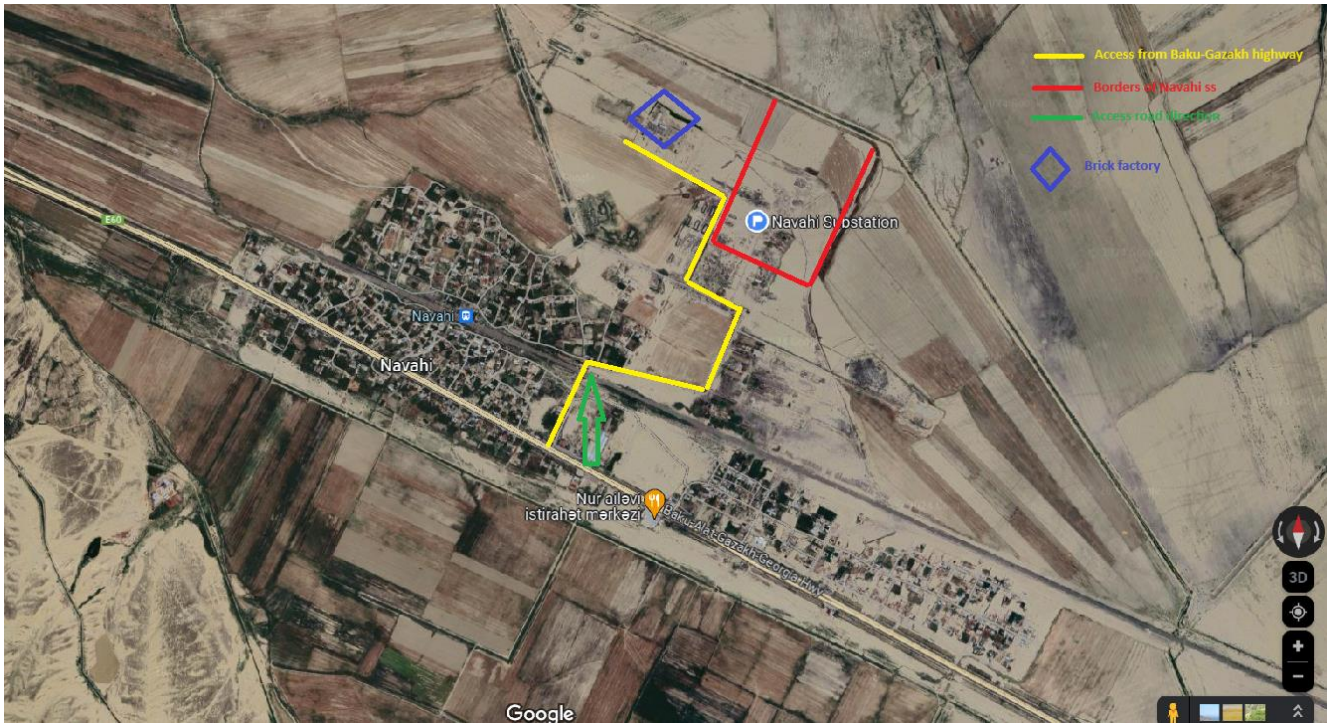


Figure 5-3: Location of Navahi SS

Sub-project 2: 500kV Transmission Lines and Sub-project 3: 330 kV Transmission Lines

For all two of these subprojects the works involve construction of transmission lines and installation of poles/towers with wires. In some sections the new lines will go in parallel to existing transmission lines operated by Azerenerji. The lines pass through inhabited and uninhabited areas, agriculture fields and

barren lands where land use is unlikely to change in the foreseeable future. Impact on land value is expected subject to verification during detailed ESIA process.

No encroachment into precious ecological areas is expected. The detailed consideration of environmental impact will be conducted within the scope of ESIA considering the presence of protected areas and important migratory birds spots within the Project's area of influence.

There is potential for impacts to areas of historical / cultural value. Cultural heritage sites (Aghsu Town Medieval Archaelogical Tourism Complex and Gobustan Mud Volcanos) along the proposed route must also be protected to preserve local traditions and history. The potential risks to other cultural heritage will be further assessed under the ESIA/ESMP and the ESIA will include a cultural heritage assessment to identity any other cultural heritage – both tangible and intangible – that might be affected. These include seeking information from the State Agency on Protection of Cultural Heritage under MoC as well as consulting with communities to identify sites of importance to them not just on nationally recognised sites.

Impact to social and economic values. The construction of the 500 kV OHLs is expected to intersect various areas of significant social and economic value, which necessitates careful consideration and management. Key areas of concern include agricultural lands, residential communities, and culturally significant sites. The transmission line route traverses agricultural regions that are important to local food production and livelihoods. Disruption to these areas could result in economic losses for farmers and reduced agricultural output. A comprehensive Social Impact Assessment (SIA) will be conducted to identify and evaluate these impacts, incorporating stakeholder consultations to gather input from affected communities and other relevant parties. Mitigation measures, including rerouting, compensation, and community benefit programs, will be developed to minimize adverse effects and ensure that the project contributes positively to the socio-economic landscape.

Interference with other utilities and traffic As per regulations enacted by Government of Azerbaijan, it is mandatory for Azerenerji to seek requisite clearance prior to construction from agencies like departments of railways, roads, telecommunication, and wherever necessary, from aviation authorities that could be affected by the construction of power distribution lines. However, it is unlikely that the new lines will result in any interference with other utilities and traffic over and above the current situation.

Whenever the distribution line crosses a railway track, clearance will be sought from the railways department. The new lines will be planned and executed in such a way that adequate clearance is maintained between the distribution lines and railways, civil aviation and civil defense installations. Wherever the distribution lines pass by airports, the poles/towers beyond a specified height are painted in alternate orange and white stripes for easy visibility and warning lights are placed at the top of these towers.

Interference with water drainage patterns. As the lines are constructed aerially and the blockage of ground surface is limited to the area of tower footings, which is very small, impacts on drainage patterns will be negligible. In the infrequent instances where drainage is affected, flow will be diverted and guided to safe zones.

Construction of access roads. There will be no need for construction of access roads for the transmission lines. Clearing and maintenance of access roads for vehicles and equipment to drive to tower locations. Wherever possible, existing roads and tracks will be used. Where necessary, access roads will be constructed. Establishment of roads may require creation of tracks across open land or bulldozing a path.

To perform repairs and maintenance, vehicles and equipment may need to come to tower locations. As with initial construction, existing roads and tracks will be used where possible; in some cases, however, temporary roads may need to be used. Any damage to land that occurs during repair and maintenance operations will be reinstated when activities are complete.

Sub-project 4: Expansion works in existing substations

In all cases the sub-projects involve installation of new extension bays within the boundaries of existing substations.

There will be no encroachment into precious ecological areas or areas of historical / cultural value such that there will be no impacts on these values. All of the expansion works will be implemented and the bays will be installed within the territory of existing substation.

There will be no impacts on other utilities and traffic. Rather, any existing impacts on other utilities due to the current condition of these service lines will be mitigated by the rehabilitation works.

There will be no impacts on water drainage patterns resulting from these subprojects.

No new access roads will be required since all lines are within existing access roads of the substations.

Impacts and Mitigation Measures Due to Project Design

Sub-project 1: 500/330kV Substation

The construction of the 500/330 kV substation will be guided by stringent environmental sustainability principles and the application of Best Available Techniques (BAT) to minimize its ecological footprint. Comprehensive environmental assessments will be undertaken to identify and protect sensitive ecosystems, local wildlife, and natural resources in the vicinity of the project site. Specific attention will be given to preserving native vegetation, managing water resources, and preventing soil erosion and contamination during construction and operation.

Adhering to BAT, the substation design will incorporate advanced technologies and practices that promote high environmental performance standards. These include the use of low-noise and low-emission equipment to minimize air and noise pollution, as well as state-of-the-art insulation and cooling systems that enhance energy efficiency and reduce greenhouse gas emissions. Furthermore, construction activities will employ methods that reduce land disturbance and waste generation, such as modular construction and the recycling of construction materials.

Environmental monitoring systems will be installed to ensure ongoing compliance with environmental regulations and standards, allowing for real-time tracking of environmental parameters and swift mitigation of any identified impacts. By integrating these environmental and BAT considerations, the substation project aims to support sustainable development while ensuring the reliability and efficiency of the electrical grid.

Escape of Polluting Materials. The main potential source of polluting materials arising from the substation subproject is oil spill/leakage from substation transformers entering the soil and groundwater either directly or indirectly through the substation drainage system. Whilst no PCB oils will be used as per international standards, alternative oils can still adversely affect soil and water quality if released to the environment.

Oil filling of transformers occurs when the equipment is initially installed. Periodic reprocessing or replacement of the oil may be necessary to ensure that proper insulation qualities are maintained. Under normal operating conditions some very minor loss of oil may occur over time through leaking seals and gaskets. Otherwise electrical failure or accident/fire could result in a more catastrophic loss of oil to the surrounding environment. Adequate oil containment systems are required at the new substations to ensure that oil that leaks from transformers or other oil filled equipment is contained and does not migrate from the site. For all new substations under the project, the following IEEE Guidelines should be followed:

- IEEE Guideline № 1127-2013: IEEE Guide for the Design, Construction and Operation of Electric Power Substations for Community Acceptance and Environmental Compatibility
- IEEE Guideline № 980-12013: IEEE Guide for Containment and Control of Oil Spills in Substations.

Replacement of transformer oil, as well as lubricating oil, solvents, and fuel that may be used by the substations, should be stored within concrete or brick buildings designed for such purposes. It is anticipated that no more than about 500 litres of transformer oil, and 100 litres of fuel and lubricating

oil would be stored on site at any one time. The oil/fuel storage building should be a well-ventilated, roofed structure, with an impermeable concrete floor. A concrete berm should be integrated into the entranceway, so as to create a shallow holding tank in the event that oil or fuel products are accidentally spilled or released from a drum or tank. Fire extinguishers of the type suitable for fighting an oil or fuel fire should be positioned within and outside of any oil/fuel storage building.

Oil spill clean-up materials (sorbent pads, loose sorbent material, etc.) should be stationed in any oil/fuel storage building in clearly labelled containers. Substation operators will need to be trained in good housekeeping practices, including how to clean up oil/fuel spills and dispose of contaminated sorbent material.

Liquid waste management systems will be installed to ensure that there will be no unacceptable impacts on the surrounding land or water bodies. The substation drainage system should be carefully designed to prevent possible flooding of the substation area and should be directed through an oil and grease separator before discharge to the ground outside the site.

Provided the above measures are implemented the potential impacts due to the escape of polluting materials from substations will be insignificant.

Explosion/fire hazards. Modern transformers are oil-cooled devices equipped with fire control systems, including firewalls that separate one transformer from another. These measures help to ensure that transformers do not overheat and catch fire and, on the rare occasion that they do catch fire, the fire does not spread to adjacent transformers.

The substation designs will include modern fire control systems such as those specified in IEEE standard 979: IEEE Guide for Substation Fire Protection (2012). Fire extinguishers of the type suitable for fighting an oil or fuel fire shall be positioned where oil-filled transformers or other oil-filled equipment is used. A fire emergency action plan shall be prepared for the substation and training given to staff on how to use firefighting equipment and how to implement the action plan.

Noise/Vibration nuisances. The equipment installed at substations are mostly static and are designed so that the noise level always remains within permissible limits. Furthermore, the substation site to be constructed is located at distances well away from residential areas and other noise sensitive receivers such that noise impacts will be insignificant.

Proposed new 500/330kV substation is located in rural areas well away from potential sensitive receptors.

Sub-project 2 and 3 – 500 and 330 kV Transmission Lines

The design of the new alignments of all the transmission lines proposed under the project will be in accordance with internationally recognised design and safety standards. This will result in improved community safety and operational efficiency with respect to all transmission infrastructure as well as improved power transfer.

Sub-project 4: Expansion works in existing substations

During the design phase of the new bay at the existing substations, environmental considerations will play a crucial role in ensuring sustainable and responsible project development. The design process will incorporate a range of environmental mitigation measures aimed at minimizing potential impacts on the surrounding environment. These measures are aligned with regulatory requirements, industry best practices, and environmental standards to promote environmental stewardship and resource conservation.

The design of the new bay will prioritize energy efficiency, resource conservation, and green building principles. Sustainable design features, such as energy-efficient equipment, renewable energy integration, and passive cooling strategies, will be considered to reduce environmental footprint and promote long-term sustainability.

There will be no noise impacts arising from the new bays.

Impacts and Mitigation Measures Due to Construction Activities

Sub-project 1: 500/330kV Substation

Erosion and sedimentation hazards. Very limited excavation will be required and confined to soil removal and platform preparation for transformers and substation structures/switchyards etc. within the substation site. Limited excavation combined with the prevailing dry climate means that potential impacts related to erosion and sedimentation due to construction activities will be minor.

Measures to minimize erosion and sedimentation will be incorporated into contract documents. These will include minimizing removal of existing vegetation and topsoil, re-surface any areas where excavation works are done. Topsoil disturbed during the development of sites will be used to restore the surface of the excavated area. Infertile and rocky material will be dumped at designated, licensed dumping areas or where applicable, used as fill material.

Nuisance to nearby properties. Potential nuisance to nearby properties during construction includes:

- Noise and vibration from construction works and heavy vehicles transporting materials to the sites
- Dust arising during excavation and transport of materials
- Air pollution due to exhaust gases from construction plant and heavy transport vehicles
- Gaseous emissions from welding

The construction activities will involve temporary and periodic use of powered mechanical equipment over a short time period with much of the work carried out using manual labour. The main noise and dust generating activities will be associated with minor excavation for platform preparation and periodic transport of materials and equipment to the sites. The potential impact of noise, dust nuisance and air pollution on nearby communities from these activities will be insignificant to minor, and periodic in nature. However, good construction practice to minimize these impacts shall be specified in contract documents.

According to Azerbaijan noise standards[4] the maximum allowable noise levels in residential areas is 50 dB (A) during daytime hours (0700-2300hrs) and 40 dB(A) during night-time hours (2300-0700 hrs). Periodic noise monitoring (at least 4 times during the construction period) during noisy construction activities such as excavation for platform preparation and delivery of equipment to sites, will be undertaken during the construction of these subprojects. Monitoring points will be located at the façade of the nearest residence where the nearest residence is less than 100m from the construction site. Should noise levels greater than the allowable standard be recorded during noise monitoring, and unequivocally associated with project construction activities, the contractor will be required to implement additional noise mitigation measures such as adjusting his working methods or placing of temporary noise barriers to ensure the noise standard is met.

Mitigation measures for noise shall include:

- Scheduling activities during day time working hours
- Maintenance of machinery and vehicles to be enhanced to keep noise at a minimum

Mitigation measures for dust/air pollution shall include:

- Water to be sprayed on unpaved roads to suppress dust in the vicinity of communities through which transportation of construction materials passes
- Vehicles delivering construction materials shall be covered.
- Vehicles and construction equipment shall be regularly serviced and well maintained
- Vehicles and construction equipment shall comply with statutory emission standards

Water quality impacts. During construction wastewater will arise from domestic sewage from site workers, contamination due to spillage of oil and other lubricants, contamination due to disposal of construction wastes and wastewater from washing of construction equipment and vehicles. Such waste water if not properly controlled has the potential to pollute nearby water bodies namely drainage channels and irrigation canals.

The contractors will be required to implement measures to prevent wastewater produced during construction from entering directly into the adjacent drainage channels and irrigation canals. Such measures shall include:

- Provision of adequate on-site sanitation facilities including septic tanks and soak-away pits or alternative sanitary facilities that do not allow untreated disposal of sewage to adjacent water bodies
- Provision of an appropriate domestic solid waste and construction waste collection and disposal system
- Provision of bunded hard standing areas for equipment servicing, refueling and wash down where drainage is directed through oil and grease interceptors before being discharged into a settling pond prior to discharge into offsite drainage channels.
- Implementation of good operation and maintenance practices for construction equipment
- Preparation of an oil spill response plan

[4] *DUST 17187 (State General Standards and Requirements), Presidential Decree No. 796 dated July 8, 2008)*

Proper implementation of the above measures will ensure that the potential water quality impacts during construction will be insignificant.

Interference with utilities, blockage of access ways. The proposed new substation site is accessible by public roads and construction traffic to and from the site will be minimal and periodic in nature. The contractors will be required to post signs and manage traffic to protect the travelling public and its workers as necessary. Contractors will be required to ensure that existing access ways to public and private amenities are maintained throughout the construction period.

Community Health and Safety. It is important to ensure that the Project activities are undertaken in such a way that their impact on project-affected communities is identified, minimised and / or mitigated and constantly monitored. Azerenerji shall carry out risk assessments for all activities to identify the risks to project affected communities. This will help to decide whether there are appropriate control measures in place for project related community risks. Community related hazards may exist, for instance, where project activities include project related road traffic or storage of hazardous materials which in case of occasional release may have off-site effect, etc..

Labour and Working Conditions. The contractor shall provide all necessary safety appliances such as safety goggles, helmets, masks, boots, gloves etc. to workers and staff. Adequate precautions will be taken to prevent danger from electrocution. Measures such as signboards, danger/red lights, fencing and lights will be provided to protect the public and workers. The contractors will be required to submit a Worker Health and Safety Plan for approval prior to commencement of construction activities. In addition, the contractors will be required to provide adequate health and safety training for workers.

The Project recognizes the critical importance of addressing Sexual Exploitation, Abuse, and Harassment (SEA/SH) both within the workplace and in interactions between workers and the local community.

Zero Tolerance Policy: The Project enforces a zero-tolerance policy towards any form of SEA/SH. All workers, regardless of their position, are expected to adhere to this policy.

Training and Awareness: Mandatory training programs on SEA/SH awareness and prevention will be conducted for all employees. This training will include recognizing SEA/SH behaviors, understanding the consequences, and knowing how to report incidents.

Reporting Mechanisms: A confidential and accessible reporting mechanism will be established for workers to report SEA/SH incidents. This mechanism will ensure anonymity and protection from retaliation for those who come forward.

Support Services: Victims of SEA/SH will have access to support services, including counseling and legal assistance. The project will collaborate with local organizations to provide comprehensive support to affected individuals.

Code of Conduct: A clear code of conduct outlining acceptable behavior and the consequences of SEA/SH will be distributed to all workers. Compliance with this code will be a condition of employment.

Community Interaction Measures

Community Engagement: Regular engagement with the local community will be conducted to inform them about the project's SEA/SH policies and reporting mechanisms. Community members will be encouraged to report any SEA/SH incidents involving project workers.

Worker Conduct Training: Workers will receive specific training on appropriate behavior when interacting with community members. This training will emphasize respect, cultural sensitivity, and the importance of maintaining professional boundaries.

Collaboration with Local Authorities: The project will work closely with local authorities and community leaders to address SEA/SH issues promptly and effectively. Joint efforts will be made to raise awareness and foster a safe environment for both workers and community members.

Monitoring and Evaluation: Continuous monitoring and evaluation of SEA/SH risks will be conducted to identify potential issues and implement corrective actions. Feedback from the community will be incorporated into this process to ensure ongoing improvement.
Public Awareness Campaigns: The project will support public awareness campaigns to educate the community about SEA/SH, promoting a culture of zero tolerance and encouraging collective action against such behaviors.

Sub-projects 2 and 3: 500 and 330 kV Transmission Lines

Social impacts. The construction of pylons for the 500 kV and 330 kV OHLs and the associated easement[5] restrictions are expected to have significant social impacts on affected communities. The land take required for the installation of pylons may lead to loss of some portion of agricultural land, which maybe an important source of livelihood for many local families. The reduction in available arable land could result in decreased agricultural productivity and economic hardship for farmers.

Furthermore, the easement zones established around the OHL will potentially impose restrictions on land use, limiting activities such as building construction, tree planting, and certain agricultural practices. These restrictions can disrupt community development plans, hinder local businesses, and affect the overall quality of life for residents. Property values in the vicinity of the transmission line may also be negatively impacted due to the visual intrusion and perceived health risks associated with high-voltage power lines. Where no rights are diminished or impacted then compensation would not be due. This would apply to land gazetted as agricultural under which no current of future development rights of use is impacted. However, where an easement is registered where restrictions on land rights result in diminished value then compensation would be due.

To mitigate these social impacts, a comprehensive Social Impact Assessment (SIA) will be conducted, involving extensive stakeholder consultations to understand the concerns and needs of affected communities. Compensation schemes will be developed to fairly address the loss of land and livelihoods. Additionally, community engagement programs will be established to provide clear

[5] *An easement is a legal right to use another person's land for a specific limited purpose. It does not confer ownership of the land.*

information about the project, address misconceptions, and explore opportunities for local benefits, such as job creation and infrastructure improvements.

By proactively managing the social impacts of land take and easement restrictions, the project aims to minimize adverse effects and foster positive relationships with local communities.

Erosion and sedimentation hazards. The project will involve only minimal excavation that could contribute to soil erosion and the potential for sedimentation of watercourses. Excavation will be mainly limited to the following:

- acquring of footprint for four holes for each lattice tower concrete support bases in the impact corridor

Excavations for tower bases will be limited to the immediate area of the tower legs. At most the foot print of a 500 kV and 330 kV tower would be (about 20 m^2), therefore, the area that would be exposed to the forces of erosion is limited.

As much as possible existing line maintenance tracks will be used to access the tower/pole sites.

Given the small scale nature of the excavations required for tower/pole foundations in a generally dry climate, the impacts associated with uncontrolled erosion and silt runoff will be minor to insignificant.

Measures to minimize erosion and sedimentation will be incorporated into contract documents. These will include minimizing removal of existing vegetation and topsoil, re-surface any areas where excavation works are done. Topsoil disturbed during the development of sites will be used to restore the surface of the excavated area. Infertile and rocky material will be dumped at designated dumping areas or where applicable, used as fill material.

Nuisance to nearby properties. Potential nuisance to nearby properties during construction includes:

- Noise and vibration from construction plant and heavy vehicles transporting materials to site
- Dust arising during excavation and transport of materials
- Air pollution due to exhaust gases from construction plant and heavy transport vehicles
- Gaseous emissions from welding

The construction activities for transmission lines will involve temporary and periodic use of powered mechanical equipment such as an augur and mobile crane. The main noise and dust generating activities will be associated with periodic transport of materials and equipment to the sites. The potential impact of noise, dust nuisance and air pollution on nearby communities from these activities will be insignificant to minor, and periodic in nature. However, good construction practice to minimize these impacts shall be specified in contract documents.

According to Azerbaijan noise standards[6] the maximum allowable noise levels in residential areas is 50 dB (A) during daytime hours (0700-2300hrs) and 40 dB(A) during night-time hours (2300-0700 hrs). Periodic noise monitoring (at least 4 times during the construction period) during noisy construction

[6] *DUST 17187 (State General Standards and Requirements), Presidential Decree No. 796 dated July 8, 2008)*

activities such as auguring of holes and use of a mobile crane, will be undertaken during the construction of these subprojects. Monitoring points will be located at the façade of the nearest residence where the nearest residence is less than 100m from the construction site. Should noise levels greater than the allowable standard be recorded during noise monitoring, and unequivocally associated with project construction activities, the contractor will be required to implement additional noise mitigation measures such as adjusting his working methods or placing of temporary noise barriers to ensure the noise standard is met.

Mitigation measures for noise shall include:

- Scheduling activities during day time working hours
- Maintenance of machinery and vehicles to be enhanced to keep noise at a minimum

Mitigation measures for dust/air pollution shall include:

- Water to be sprayed on unpaved roads to suppress dust in the vicinity of communities through which transportation of construction materials passes
- Vehicles delivering construction materials shall be covered.
- Vehicles and construction equipment shall be regularly serviced and well maintained
- Vehicles and construction equipment shall comply with statutory emission standards

Water quality impacts. During construction wastewater will arise from domestic sewage from site workers, contamination due to spillage of oil and other lubricants, contamination due to disposal of construction wastes and wastewater from washing of construction equipment and vehicles. Such waste water if not properly controlled has the potential to pollute nearby water bodies namely drainage channels and irrigation canals.

The contractor will be required to implement measures to prevent wastewater produced during construction from entering directly into the adjacent drainage channels and irrigation canals. Such measures shall include:

- Provision of adequate on-site sanitation facilities including portable toilets or alternative sanitary facilities that do not allow untreated disposal of sewage to adjacent water bodies
- Provision of an appropriate domestic solid waste and construction waste collection and disposal system
- Provision of hard standing areas for equipment servicing, refueling and wash down where drainage is directed through oil and grease interceptors before being discharged into a settling pond prior to discharge into offsite drainage channels.
- Implementation of good operation and maintenance practices for construction equipment
- Preparation of an oil spill response plan

Proper implementation of the above measures will ensure that the potential water quality impacts during construction will be insignificant.

Interference with utilities, blockage of access ways. Erection of new towers/poles and lines occurs in a progressive manner from location to location such that traffic disruption along the roads where construction crews are unloading materials from trucks will be minor. The contractors will be required to post warning signs and manage traffic to protect the travelling public and its workers as necessary.

In the event that stringing conductors presents a possible risk to traffic on roads or rivers, scaffolds will be constructed to protect pedestrians and vehicles (and the conductor itself) from potential injury /damage during conductor stringing. Contractors will be required to ensure that existing access ways to public and private amenities are maintained throughout the construction period.

The detailed environmental assessment will be carried out as part of the ESIA, taking into account the presence of protected areas and important migratory bird sites within the project's area of influence.

Health and Safety. The construction work force and the public face a number of safety risks due to potential accidents during construction. These include *inter alia*: explosions, falls from towers and buildings, unsafe power supply and equipment failure. Potential health risks include: inadequate sanitation and sexually transmitted diseases introduced from migrant workers. To minimize such risks Azerenerji will ensure that contractors comply with statutory requirements for worker and public safety related to electric power infrastructure and other internationally recognized safety guidelines.

Labour and Working Conditions. The contractor shall provide all necessary safety appliances such as safety goggles, helmets, masks boots etc. to workers and staff. Adequate precautions will be taken to prevent danger from electrocution. Measures such as signboards, danger/red lights, fencing and lights will be provided to protect the public and workers. The contractors will be required to submit a Worker Health and Safety Plan for approval prior to commencement of construction activities. In addition the contractors will be required to provide adequate health and safety training for workers.

The Project recognizes the critical importance of addressing Sexual Exploitation, Abuse, and Harassment (SEA/SH) both within the workplace and in interactions between workers and the local community.

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Reporting Mechanisms: A confidential and accessible reporting mechanism will be established for workers to report SEA/SH incidents. This mechanism will ensure anonymity and protection from retaliation for those who come forward.

Support Services: Victims of SEA/SH will have access to support services, including counseling and legal assistance. The project will collaborate with local organizations to provide comprehensive support to affected individuals.

Code of Conduct: A clear code of conduct outlining acceptable behavior and the consequences of SEA/SH will be distributed to all workers. Compliance with this code will be a condition of employment.

Community Interaction Measures

Community Engagement: Regular engagement with the local community will be conducted to inform them about the project's SEA/SH policies and reporting mechanisms. Community members will be encouraged to report any SEA/SH incidents involving project workers.

Worker Conduct Training: Workers will receive specific training on appropriate behavior when interacting with community members. This training will emphasize respect, cultural sensitivity, and the importance of maintaining professional boundaries.

Collaboration with Local Authorities: The project will work closely with local authorities and community leaders to address SEA/SH issues promptly and effectively. Joint efforts will be made to raise awareness and foster a safe environment for both workers and community members.

Monitoring and Evaluation: Continuous monitoring and evaluation of SEA/SH risks will be conducted to identify potential issues and implement corrective actions. Feedback from the community will be incorporated into this process to ensure ongoing improvement.

Public Awareness Campaigns: The project will support public awareness campaigns to educate the community about SEA/SH, promoting a culture of zero tolerance and encouraging collective action against such behaviors.

Impacts and Mitigation Measures from Operation

Operation & Maintenance (O&M) staff/skills less than acceptable resulting in a variety of adverse effects:

Potential impacts related to O&M will be avoided by Azerenerji through implementation of the following measures:

(i) Operation & Maintenance of all transmission lines is performed by trained and experienced staff of Azerenerji's various Regional Electricity Service and Supply Departments (RESSD)

(ii) Operation & Maintenance of 500/330 kV substation is performed by trained and experienced staff of Azerenerji's various Regional Electricity Service and Supply Departments (RESSD)

(iii) The maintenance of all the substations is being performed by staff trained by the RESSDs only.

Exposure to Electro Magnetic Fields (EMF):

There have been some concerns about possible increased risk of cancer from exposure to electromagnetic radiation from overhead transmission lines. Research has been undertaken into this matter throughout the world. A World Health Organization (WHO) review in 1996 concluded that:

"From the current scientific literature, there is no *convincing evidence that exposure to radiation field shortens the life span of humans or induces or promotes cancer".*

Law on Radiological Safety of Population (1997) of Azerbaijan establishes the main principles of Government policy on meeting radiation safety requirements as well as environmental norms providing safety of employees and population in areas affected by use of radioactive sources. The law provides for compensation which can be claimed by people for damage to their health, property and life during accidents.

No EMF exposure guidelines have been drawn in Azerbaijan though exposure guidelines have been drawn up outside Azerbaijan including:

- *State Transmission Lines Standards and Guidelines in the USA;*
- *International Commission on Non-Ionizing Radiation Protection (ICNIRP);*
- *US National Council on Radiation; and*
- *American Conference on Government and Industrial Hygienist (ACGIH).*

The ICNIRP guidelines recommends limiting exposure to EMFs, although it adds that the levels quoted should not be interpreted as distinguishing 'safe' from 'unsafe' EMF levels. The ICNIRP guideline for the general public (up to 24 hours a day) is maximum exposure levels of 1,000 mG or 100 µT. The impact of EMF is also dependent on the duration of exposure and therefore no significant adverse impact is envisaged. Azerenerji complies with international norms for field strength limits. Azerenerji is also following approved international design standards and complies with the World Bank Group's Environment, Health and Safety (EHS) Guidelines.

Within inhabited communities the existing environment includes EMF from a number of sources including the use of electrical appliances and equipment, ground current in residential water pipes and the electric distribution circuits that serves the residences. The EMF from distribution circuits can vary widely in the communities depending upon the number of phases and whether the circuit is overhead or underground. A typical 12.5kV overhead distribution line with 300amps current can result in magnetic field of 22mG below the line dropping to 15mG at 7.5m from the line and 8mG at 14m distance[7].

The project acknowledges community concerns regarding the potential health risks associated with Electromagnetic Fields (EMF) generated by high voltage transmission grid. The following actions outline the measures and communication strategies implemented to address these perceptions and provide accurate information based on scientific evidence.

Community Engagement and Education

- **Scientific Information Dissemination**: The project will provide clear, accessible information on EMF and its health effects based on the latest scientific research and guidelines from reputable health organizations, such as the World Health Organization (WHO) and the International Commission on Non-Ionizing Radiation Protection (ICNIRP).

[7] *Washington State Electric Transmission Research Needs Task Force.*

- **Public Meetings and Consultations**: Regular public meetings and consultations will be held to discuss EMF concerns with community members. Experts will be available to answer questions, address misconceptions, and provide reassurance based on scientific evidence.
- **Information Materials**: Brochures, fact sheets, and online resources will be developed and distributed to explain what EMF is, the levels typically associated with high voltage transmission lines, and the findings of health risk assessments.
- **Transparency and Monitoring**: The project will conduct regular EMF measurements in the vicinity of the transmission lines/substation and make the results publicly available. This transparency will help build trust and demonstrate that EMF levels are within safe limits established by international standards.
- **Engagement with Health Authorities**: Collaboration with local and national health authorities will be established to ensure that the information provided to the community is accurate and endorsed by health professionals.

Risk Mitigation Measures

- **Design and Siting:** The transmission lines will be designed and sited to minimize EMF exposure to populated areas. This includes maintaining appropriate distances from residential areas, schools, and other sensitive locations.
- **Adherence to Standards:** The project will comply with all relevant EMF exposure guidelines and standards set by international and national regulatory bodies. These standards are designed to protect public health and ensure safe levels of EMF exposure.
- **Community Feedback Mechanism:** A feedback mechanism will be established for community members to voice their concerns and receive timely responses. This will include a dedicated helpline and an online portal for submitting inquiries and feedback.

Azerenerji complies with international norms for field strength limits. Azerenerji is following the approved international standards and design, which are absolutely safe. Detailed discussion on health impacts associated with EMF will be presented in respective sections of ESIA.

Community Impacts

For the most part the impact of the proposed power transmission project on the socio-economic environment will be significantly beneficial. The project will strengthen the transmission grid and enhance system operation and support project implementation and capacity building. In parallel, the project will support Azerenerji to enhance system operation and control to integrate planned VRE over the next 10 years. Improved access to uninterrupted renewable electricity supply will be a major stimulus to economic growth, particularly in rural areas of the regions. During construction, benefits to local people can be maximized if the contractor recruits construction workers locally. Wherever possible, the contractors should also not discriminate in the employment of women. The long-term effects of the proposed project in poverty reduction are expected to be largely positive.

Climate-related Aspects

In principle, the climate topic includes two separate assessments:

- Greenhouse gas (GHG) impact assessment – the effects on the climate from GHG emissions arising from the Project.
- Climate resilience assessment – the resilience of the Project to adapt to the impacts resulting from a changing climate, including how the Project design would take into the account the projected impacts of climate change.

This section provides an overview of the climate-related impacts of the Project and sets out why the assessment of these has been scoped out of the assessment.

Greenhouse Gas Impact Assessment

Study Area

The study area for GHG impact assessment would need to cover all direct GHG emissions arising from activities undertaken within the Project boundary during the construction, operation and maintenance of the Project. It would need to include emissions based on a lifecycle approach.

Potential Impacts and Principle Mitigation

The key identified contributing GHG emission sources and/or activities associated with the Project, based on a lifecycle approach, are presented in the Table below.

Table 5-5: GHG emission sources and/or activities

Lifecycle stage	Project activity	Key GHG emission sources
Preparation stage	Construction site preparatory works	Fuel use - for vehicles, generators on site, etc.
	Clearance works 1. Vegetation clearance; 2. Land use change	Losses of carbon sink - removal of a natural environment that has the ability to absorb GHG emissions (e.g. woodlands)
Pre-fabrication stage	Use of products and/or materials required to build the Project (e.g. concrete, steel, conductors, other metallic materials, insulators, etc.)	Embodied GHG emissions within the construction materials - emissions resulting from the manufacturing/processing of materials into secondary/final products for use and the transportation of those materials

Lifecycle stage	Project activity	Key GHG emission sources
Construction stage	On-site construction activity, e.g.: - Transport of materials and equipment to the construction site; - Transportation of construction workforce to the construction site; - Use of construction vehicles andplant at the construction site; - Disposal of any waste generated by the construction processes.	- GHG emissions from vehicle and plant use - GHG emissions from disposal of waste
Operational & maintenance stage	- Operation of substation, includinglighting - Maintenance operations, including vehicle journeys, replacement of SS and OHL equipment	- GHG emissions from energy and fuel use. - Embodied emissions associated with replacement of equipment / materials (e.g. OHL tower elements, conductors, insulators, SS equipment) These emissions are expected to be minimal

The principle mitigation measures to reduce GHG emissions across the lifecycle of the Project would include:

- Specification of alternative materials with lower embodied GHG emissions such as locally sourced products and materials with a higher recycled content.
- Low carbon design specifications such as energy-efficient lighting (at the substation) and durable construction materials to reduce energy consumption and maintenance and decrease replacement cycles.
- A Construction Environmental and Social Management Plan (CESMP) prepared and implemented by the selected construction Contractor to include a range of best construction practice measures with an aim to reduce GHG emissions.

Since the Project is in its initial development stage and the relevant technical / design information for GHG calculation during construction stage of the Project is currently not available (e.g. construction transport, etc.), the calculation of GHG emissions associated with the construction of the Project has been scoped out from the planned ESIA and is to be considered as part of the climate impact assessment during next development stages of the Project (detailed design), which is expected to provide the necessary information for GHG calculation.

GHG emissions during operation and maintenance of the Project are expected to be very small over time during its operational life. Therefore, these have been scoped out from the ESIA.

Climate Resilience Assessment

Study Area

The study area for the climate resilience assessment covers all elements (assets and infrastructure) which constitute the Project.

Potential Impacts and Principle Mitigation

The project area is likely to be vulnerable to a range of climate change risks – extreme events (e.g. an increased frequency and severity of prolonged and/or heavy precipitation events and lightning, heat waves, an increased risk of storms with high wind speed, etc.).

These extreme weather events associated with the expected climate changes may result in the following principle impacts:

- Material deterioration due to high temperatures and also from periods of heavy rainfall.
- Flood risk at the substation location, and damage to drainage systems and equipment.
- Erosion and subsidence undermining structures.
- Storm damage to OHL tower structures and substation equipment and other project's assets.
- Asset deterioration from exposure to heat.

A number of general mitigation and adaptation measures would need to be considered to address these risks. These measures would need to be identified and incorporated into the Project design and documented in the ESIA, so to achieve that the Project is designed to be resilient to impacts arising from current and future weather events and climatic conditions, and designed in accordance with current planning, design and engineering practice and codes.

6. STAKEHOLDER ENGAGEMENT

Stakeholders are individuals or groups who can affect, or are affected by, or have a legitimate interest in the Project results and performance. Some stakeholders are obvious, such as government authorities responsible for permitting and local communities adjacent to the Project. However, preliminary stakeholder identification intends to include other groups, organizations and individuals that may not appear to be directly involved. Health professionals and educators, for example, may not be directly involved in the Project development, but are familiar with the existing community and socio-economic dynamics and can help improve the quality of impact analysis. Such consultation also helps ensure that mitigation and social investment are coordinated with existing initiatives. Expanding stakeholder identification beyond government and local residents increases the likelihood that a wide representation of interests and opinions will be considered in the development of the Project.

For the AZURE Project, the following stakeholders have been identified and analyzed per project component. These stakeholders include affected parties (as defined in section 6.1), other interested parties (as defined in section 6.2) and disadvantaged/vulnerable individuals or groups (as defined in section 6.3).

6.1 Objectives of Stakeholder Engagement

Effective stakeholder engagement and consultation is seen as fundamental to the success of the proposed Project.

The Project has a wide range of stakeholders (including statutory consultees, local communities, property owners and landowners, businesses and other affected groups) with differing interests that will require varied levels of information. Specific communication activities therefore need to be focused to meet the needs of particular individuals and groups, particularly vulnerable groups. This requires an understanding of the stakeholders and their interest in the proposed project.

- Stakeholder engagement for the Project would be based on the following principles:
- Early and ongoing engagement with relevant stakeholders to inform and influence the Project development process;
- Seeking an appropriate level of feedback at each development stage in order to achieve iterative design process by ensuring that comments and concerns received are taken into consideration.
- Building of long term relationships with key stakeholders throughout the different stages of the Project to help better understand their views;
- Where possible and practicable ensuring concerns are addressed; and
- Ensuring appropriate statutory consultation is undertaken in compliance with national requirements and best international practice.

Azerenerji intends to implement the Project as an example of good practice in the development of transmission infrastructure with the aim of involving stakeholders and maintaining good communication practices throughout the life of the Project. Therefore, stakeholder engagement process has been initiated in the ESIA scoping stage and will be further carried on based on the technical analysis and environmental and social appraisal performed so far.

6.2 Approach to Further Stakeholder Engagement for Scoping and then ESIA

This process will be guided by the Stakeholder Engagement Plan (SEP) that has been prepared during the scoping stage. This SEP (Annex 2) has been prepared to meet WB standards, as well as the national stakeholder engagement requirements.

There will be no further engagement for the preparation of the scoping report, although the results of the report will be shared with the project community during the disclosure of the ESIA document. During these meetings, which will be organised in each Project Region, a scope of potential environmental and social risks and impacts will be fully presented to the community and their perceptions and concerns on the project impacts and risks will be considered and duly addressed in the meetings and in the final ESIA report. Both documents will also be published virtually on the official website of Azerenerji. The methods for the rest of the community engagement needs to be confirmed further in ESIA from lists on impacted land parcels that will be affected.

The draft ESIA report (together with the SEP) will be subject to public disclosure and consultation as described above upon approval by MENR and the World Bank. The disclosure and consultation activities undertaken will be amended in line with the updated version of the SEP.

A full ESIA Public disclosure package for Project will contain:

- ESIA Report
- Non-technical Summary (NTS)
- Stakeholder Engagement Plan (SEP), including Project Grievance Form
- Environmental and Social Management Plan (ESMP)
- Environmental and Social Commitment Plan (ESCP)
- Resettlement Policy Framework (a).

6.3 Project Stakeholders

For the GoA funded Project and AZURE project, stakeholders have been identified and analyzed per project component. These are as set out in the SEP.

Table 6-1: Major stakeholder groups

Stakeholder Major Group	Project Site Stakeholder
Property owners along the routes OHLs	*Private land owners*
	Owners of public and private lands whose land or properties may be impacted by construction works (village, rayon, or national levels)
	Organizations owning lands (religious, socio-civic and other groups)
People residing in the project areas	*In the framework of the current project, a second key category of PAPs will be people living along the transmission line route, the access tracks and in the vicinity of the proposed substations. These PAPs are likely to be affected by disturbances caused by the Project's heavy vehicles traffic, construction impacts, etc., but may also benefit from project-related employment opportunities.*

Stakeholder Major Group	Project Site Stakeholder
Municipality and village representatives	*A third category of important PAPs will be village representative offices. İt is represented by representative of head of executive power office of the region.*
Businesses located in the project area who may be positively or negatively affected by the project	*Restaurants and public catering*
	Shops
	Car wash
	Private Products
	Small private hotels for tourists
	(Farmers') Markets (both formal and informal traders)
	Other services
Businesses located in the target Regions who may be positively or negatively affected by the project	*Residents and community members*
	(Farmers') Markets (both formal and informal traders)
	Restaurants
	Other services

6.4 Other Interested Parties

Other Interested Parties (OIPs) are those who may have an interest in the project and would have different concerns and priorities about project impacts, mitigation mechanisms and benefits, and who may require different, or separate, forms of engagement (ESS10 pars. 5&11). Generally, these are people, social groups and organizations who may have a possibility to influence and make decisions on implementation of the project and/or may have an interest in the Project. This group includes governmental entities, Non-Governmental Organizations (NGOs) and private businesses, who may benefit from the project. It is envisaged that all three components of AZURE share the same Other Interested Parties (OIPs) as shown below:

Table 6-2: Other Interested Parties for AZURE

Stakeholder Major Group	Project Stakeholder
Ministries and government agencies	*Ministry of Energy*
	Azerbaijan Railways
	Ministry of Culture
	State Tourism Agency
	Ministry of Finance
	Ministry of Economy
	Ministry of Emergency Situations
	Ministry of Agriculture
	Ministry of Ecology and Natural Resources
	Ministry of Labor and Social Protection of Population
	State Committee for Family, Women and Children Affairs
	Rayon Local Executive Powers
	Environmental Public Council of the Ministry of Ecology and Natural Resources
	"EkoSfera" Social Ecological Center Public Union

	"Environmental Protection First" Coalition
Civil society organizations	*Local NGOs, Social Economy Organizations Trade Unions; Foundations; Social Enterprises; Cooperatives and Credit Unions.*
Other project developers International NGOs, and implementation agencies	*Other project developers, International NGOs, and implementation agencies (e.g., United Nations Development Program (UNDP), GIZ, Food and Agriculture Organization (FAO) etc.)*

Table 6-3: List of identified stakelolders

Name	***Category***
Project-Affected Parties for Component 1	
Property owners along the routes of OHLs	*Project Site Stakeholder*
People residing in the project areas	*Project Site Stakeholder*
Municipality and village representatives of the following municipalities/villages:	*Project Site Stakeholder*
Navahi settlement (Hajigabul) administrative representative	*Project Site Stakeholder*
Ranjbar village (Hajigabul) administrative representative	*Project Site Stakeholder*
Gizilburun village (Hajigabul) administrative representative	*Project Site Stakeholder*
Pirsaat village (Hajigabul) administrative representative	*Project Site Stakeholder*
Banka settlement (Neftchala) administrative representative	*Project Site Stakeholder*
Shirvanli village (Neftchala) administrative representative	*Project Site Stakeholder*
Yukhari Nokhudlu (Salyan) village administrative representative	*Project Site Stakeholder*
Salmanli village (Salyan) administrative representative	*Project Site Stakeholder*
Khurshud village (Salyan) administrative representative	*Project Site Stakeholder*
Chukhanli village (Salyan) administrative representative	*Project Site Stakeholder*
Abadkand village (Salyan) administrative representative	*Project Site Stakeholder*
Khalaj village (Salyan) administrative representative	*Project Site Stakeholder*
Shakarli village (Salyan) administrative representative	*Project Site Stakeholder*
Yenikand village (Salyan) administrative representative	*Project Site Stakeholder*
Goylar village (Aghsu) administrative representative	*Project Site Stakeholder*

Name	***Category***
Langabiz village (Aghsu) administrative representative	*Project Site Stakeholder*
Bico village (Aghsu) administrative representative	*Project Site Stakeholder*
Garagoyunlu village (Aghsu) administrative representative	*Project Site Stakeholder*
Gubakhalilli village (İsmayilli) administrative representative	*Project Site Stakeholder*
Garamaryam village (Goychay) administrative representative	*Project Site Stakeholder*
Garabaggal village (Goychay) administrative representative	*Project Site Stakeholder*
Mirzahuseynli village (Goychay) administrative representative	*Project Site Stakeholder*
Arak village (Goychay) administrative representative	*Project Site Stakeholder*
Hushun village (Goychay) administrative representative	*Project Site Stakeholder*
Yukhari Aghjayazi village (Agdash) administrative representative	*Project Site Stakeholder*
Goshagovag village (Aghdash) administrative representative	*Project Site Stakeholder*
Arabojagi village (Aghdash) administrative representative	*Project Site Stakeholder*
Arash village (Yevlakh) administrative representative	*Project Site Stakeholder*
Aksham village (Yevlakh) administrative representative	*Project Site Stakeholder*
Gulovsha village (Yevlakh) administrative representative	*Project Site Stakeholder*
Havarli village (Yevlakh) administrative representative	*Project Site Stakeholder*
Hajiselli village (Yevlakh) administrative representative	*Project Site Stakeholder*
Salahli village (Yevlakh) administrative representative	*Project Site Stakeholder*
Huruushagi village (Yevlakh) administrative representative	*Project Site Stakeholder*
Tanrigulular village (Yevlakh) administrative representative	*Project Site Stakeholder*
Boshchali village (Yevlakh) administrative representative	*Project Site Stakeholder*
Businesses located in the project area who may be positively or negatively affected by the project	*Project Site Stakeholder*
Other Interested Parties for AZURE Project	
Executive power representative of the Hajigabul region	*Governmental authorities at local level*
Executive power representative of the Bilasuvar region	*Governmental authorities at local level*
Executive power representative of the Neftchala rayon region	*Governmental authorities at local level*

Name	***Category***
Executive power representative of the Salyan rayon region	*Governmental authorities at local level*
Executive power representative of the Aghsu region	*Governmental authorities at local level*
Executive power representative of the Yevlakh region	*Governmental authorities at local level*
Executive power representative of the Mingachevir city	*Governmental authorities at local level*
Executive power representative of the Aghdash rayon (region)	*Governmental authorities at local level*
Executive power representative of the Goychay region	*Governmental authorities at local level*
Executive power representative of the Gobustan region	*Governmental authorities at local level*
Executive power representative of the Absheron region	*Governmental authorities at local level*
Executive power representative of the Garadagh region	*Governmental authorities at local level*
Ministry of Energy	*Governmental authorities at local level*
Azerbaijan Railways JSC	*Governmental authorities at local level*
Health providers	*Governmental authorities at local level*
School representatives	*Governmental authorities at local level*
SEEA of Ministry of Ecology and Natural Resources	*Governmental authorities at national level*
Ministry of Digital Development and Transport	*Governmental authorities at national level*
Ministry of Culture	*Governmental authorities at national level*
State Tourism Agency of the Republic of Azerbaijan	*Governmental authorities at national level*
Center of Hygiene and Epidemiology	*Governmental authorities at local level*
Masdar Azerbaijan	*Private sector representatives at local level*
AZERENERJI personnel	*Project Personnel*
NGOs, Trade Unions and etc	*NGO*
Media representatives	*Media*
Project-Affected Parties for Component 2 & 3	
AZERENERJI personnel	*Project Personnel*
Consulting companies	*Project Personnel*
Other Interested Parties for Component 2 & 3	
Ministry of Energy	*Governmental authorities at local level*
Ministry of Emergency Cases	*Governmental authorities at local level*

6.5 Stakeholder Engagement Process for ESIA

The Stakeholder Engagement Process will include the following phases: ESIA, Construction, Operation and Decommissioning. The SEP sets out the detailed process for ESIA engagement an ongoing consultation.

A public consultation process has been undertaken in all project traversed regions as part of the ESIA/Land Acquisition phase. As indicated above the participants of the consultations representing different stakeholder groups mentioned in SEP supported the Project. As a result of the engagement process the stakeholders present expect positive impacts from the different project elements, including facilitation of improved power supply, boosting of economic development etc.

7. THE RECEIVING ENVIRONMENT- CHARACTERISTICS OF THE PROJECT AREA

This Chapter describes the current environmental and social conditions that could be affected by the project.

The project area is mainly located in the middle part of Shirvan plain at the foot of the Great Caucasus. Southern flank of the Great Caucasus ridge descended down to Alazan-Ayrichay valley (in some sources Alazan-Haftaran valley, whereas in others it is considered as one of the Kur River valley parts) that in some places is parallel to the mentioned ridge.

The relative annual average humidity is 72 %, ranges between 52-8% within a year. The annual precipitation amount in the rayon is 300 - 400 mm. The precipitation mostly falls in spring and autumn. The potential evaporation occurs 1000 - 1100 mm in summer, and 198 – 236 mm in winter.

Soil formation is affected by the different levels of solutions in most part of Shirvan lowland. The dry climate sucks moisture containing dissolved salt out of the ground. The soils of these semi-deserts, therefore, are strongly salted and also lack humus because there is a lack of decomposing vegetation. Grey earth is the predominant type of soil formation, ash grey in colour. Nevertheless, some of these kinds of whitish soil are fertile, since the great number of insoluble minerals are suitable for use in irrigation. The lowland was affected by both recent and ancient alluvia of the many rivers.

7.1 Physical description of the 500/330 kV Navahi substation

The project area is geographically located on the eastern side of Navahi settlement in the southern part of Hajigabul region. The land of the area belongs to the state and was given to the use of "AzerBashEnergy" (now "Azerenergy" OJSC) by the Decree No. 166 of the Council of Ministers of the Azerbaijan SSR dated May 18, 1984 (presented in Appendix 3.4 of the State Act). The site is empty. The site is located 1.2 km away from Navahi settlement in the north-east of Hajigabul region, 20 km from Hajigabul city, and 90 km from Baku city in the southeast direction. During the Soviet Union, it was planned to build a nuclear power plant in the area. After the accident at the Chernobyl nuclear power plant, the construction of the station was stopped. A brick factory and warehouse buildings are located 500 m from the project area. Baku-Gazakh railway passes 1.25 km away. Figure 7.1 shows project location and 7.2 shows the view of the field.

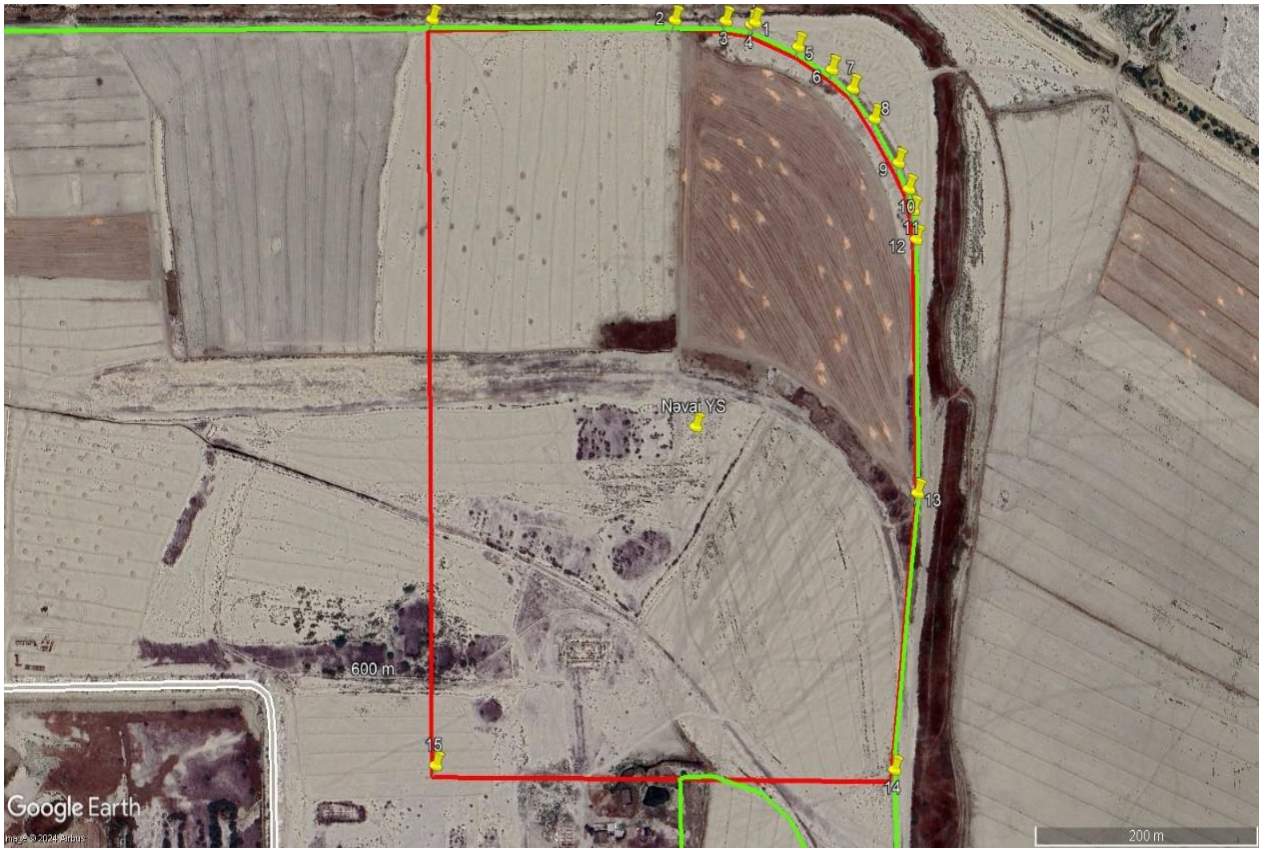


Figure 7-1: Project location

Figure 7-2: View of the field

7.2 Physical description of the routes

This section provides an overview of existing conditions along the proposed routes for overhead transmission lines.

The routes can be described as follows:

- 220 km length 330 kV single-circuit "Mingachevir HPP - Navahi SS" OHL runs from Navahi SS to Mingachevir HPP for evacuation of energy from Navahi SS to Mingachevir HPP. It has flat and

slightly hilly terrain and is easily accessible. It will pass through the administrative territories of Hajigabul, Aghsu, Ismayilli, Goychay, Aghdash, Yevlakh, Mingachevir regions.

- 235 km length 500 kV single-circuit "Azerbaijan TPP - Navahi SS" OHL runs from Navahi SS to Azerbaijan TPP for evacuation of energy from Navahi SS to Azerbaijan TPP. It will be constructed parallel to Navahi-Mingachevir OHL and has flat and slightly hilly terrain and is easily accessible. It will pass through the administrative territories of Hajigabul, Aghsu, Ismayilli, Goychay, Aghdash, Yevlakh, Mingachevir regions.
- 20 km length 330 kV single-circuit "Alat FEZ SS - Navahi SS" OHL runs from Navahi SS to Alat FEZ SS for evacuation of energy from Navahi SS to Alat FEZ SS. It has flat terrain and is easily accessible. It will pass through the administrative territories of Hajigabul and Garadagh regions.
- 60 km length 330 kV single-circuit "Absheron WPP - Navahi SS" OHL runs from Absheron WPP to Navahi SS for injection of renewable energy to the grid. It has flat and slightly hilly terrain and is easily accessible. It will pass through the administrative territories of Hajigabul and Gobustan regions.
- 20 km 330 kV single-circuit "Absheron WPP - Gobu ES" OHL runs from angle points A1 to A17 for injection of renewable energy to the grid. It has flat and slightly hilly terrain and is easily accessible. It will pass through the administrative territories of Gobustan and Absheron regions.

For detailed maps of the routes, see Annex 1, “Maps of OHLs Corridors”. The following paragraphs describe existing baseline conditions recorded during field reconnaissance works that were completed during the route optimization and environmental baseline studies.

7.3 Physical description of the Mingachevir HPP

The construction works of Mingachevir Hydropower Plant started in 1946, it has an area of 119 ha. In 1951, the first unit was commissioned. Construction works were completed in 1955 and 6 hydrounits were put into operation at full capacity (360 MW). In 2018, the regeneration capacity of 6 hydro units, which were reconstructed at the station, was increased to 424.6 MW. The volume of the reservoir at the station is 16 billion m3, the area is 625 km2. The maximum level of the reservoir is 83.00 m. There are 5 hydrotechnical facilities at the station: Earth dam, Intake facility, Surface Watering facility, Bottom Pump, Main building. The plant has Open Distribution Units which are 110 kV ODU; 220/330 kV ODU. There are 4 autotransformers and 4 power transformers. 110 kV and 220 kV Open Distribution Units are connected by 2 autotransformers. 6 electric transmission lines in 110 kV ODU (110 kV I, II Shahar OHL, I, II Yevlax OHL, Goran OHL and II Ganja OHL), 2 electric transmission lines in 220 kV ODU (220 kV I, II Mingachevir OHL) and 330 kV III Mingachevir OHL are available. This line is the line connecting Mingachevir HPP and Azerbaijan TPP. The Mingachevir HPP also includes Varvara HPP, Goychay HPP, Ismayilli-1,2 HPP, Balaken HPP, Oguz-1,2,3 HPP and Sugovushan-1,2 HPP.

The Mingachevir Hydropower Plant has a special place and weight in Azerbaijan's energy supply. In recent times, very important work has been done to bring the station to the level of modern requirements and to modernize it technically. Mingachevir Hydro Power Plant has played an important role in meeting the electricity demand of the population of Azerbaijan and the country's economy for many years. Back in 1941, a decision was made to build this station and put the first shift into operation in 1945. However, the outbreak of the Second World War led to the postponement of construction works. Finally, in 1945, it was possible to start the construction of the Mingachevir water junction and the power station on it. In 1951, the first unit was commissioned here. Construction works were

completed in 1955. Thus, the Mingachevir Hydropower Plant has been put into operation with a full capacity of 360 MW. With an average annual water flow of 12.5 billion cubic meters, the regulated watershed has enabled the production of 1.4 billion kilowatt-hours of electricity per year, the irrigation of 1.2 million hectares of fertile land, and the development of fisheries. The water junction includes an earthen dam created by the washing method, the intake of the Hydro Power Station, sub-intakes, the main building, electrical installations, intakes of the Upper Karabakh and Upper Shirvan irrigation canals. The reservoir of the station has sufficient water reserves for long-term use due to its capacity.

Mingachevir Hydro Power Plant is the only power plant that ensures frequency regulation within the norms established by the standard according to the manoeuvrability, adjustment range and characteristics of the installed hydro units. Currently, 130 employees work here.

Large-scale improvement works were carried out in the area, more than 5,000 trees were planted, and asphalt cover was laid on 15,000 square meters.

Mingachevir town which hosts the Mingachevir HPP is situated 55 meters above sea level on the foothill of the southeast of the Bozdag Mountain chain and on the edge of the Mingachevir reservoir in the Kur-Araz lowland in central Azerbaijan. The town was built in a mild and warm zone and has warm and dry summers and mild winters. The average annual temperature is 14 - 15 °C, highest temperature 42 °C (July–August) and the lowest temperature (January–February) -10 °C. The average annual rainfall is 250–300 mm.

The town lies on both banks of the Kura river - a 1515 km-long river, which is the biggest and longest one in the South Caucasus. Mingachevir is situated 280–300 km west of the capital of the republic, Baku.

Mingachevir has been developing rapidly over the last 54 years since it has been established. It is currently considered to be the fourth most developed city of the country both for its economic potential and the number of inhabitants, it is one of the most important cities of the republic in terms of energy, industry, science, education and culture.

Total area of the Mingachevir HPP is 119 ha and is owned by Azerenerji JSC. Expansion in 330 kV SS at Mingachevir HPP will be implemented at empty land parcel attached to the existing outdoor switchgears. There will be no impact to the trees in the substation area as they were moved to vacant area within the territory of the substation (See Figure 7-3 below).

Figure 7-3: Mingachevir HPP and the area assigned for extension

7.4 Physical description of the Azerbaijan TPP

Azerbaijan Thermal Power Plant is a gas fired power plant in the Mingachevir region, consisting of 8 power units with a capacity of 300 MW each.

It is the largest thermal power plant in the South Caucasus region. Construction of the power plant began in 1974. The first power unit with a total capacity of 2400 megawatts was commissioned on October 20, 1981, the eighth - in 1990. The installations were put into operation in stages from 1981 to 1990. The source of cooling water is the Karabakh Canal. The height of the plant's chimneys is 320 meters.

On February 13, 2023, construction of a new power plant with a capacity of 1280 MW began on the territory of the thermal power plant. Construction is carried out by local companies. Technical supervision is carried out by AFRY Company. The design is carried out by the Spanish company IDOM. Gas turbines and generators for the new power plant are manufactured by the Italian company Ansaldo Energia. In addition, the steam turbines of the 7th and 8th power units of the thermal power plant are being modernized.

Total area of the Azerbaijan TPP is 182 ha and is owned by Azerenerji JSC. The area assigned for outdoor switchgears of the TPP is 24 ha which will also host the installation of new 500 kV bay at Azerbaijan TPP that be implemented at empty land parcel. The area is free from trees and any other structures (See Figure 7.4).

Figure 7-4: Location of Azerbaijan TPP

7.5 Physical description of the Absheron SS

Absheron rayon was formed on January 4, 1963. The Absheron rayon is located on the western coast of the Caspian Sea, bordering the Gobustan region, the city of Sumgait, the Sabunchu, Garadagh and

Binagadi Regions of the city of Baku. The Absheron region consists of 15 administrative-territorial Regions: 1 city, 8 towns and 6 villages. Khirdalan city is the administrative center of Absheron region.

The warm temperate semi-desert and dry steppe climate prevails in the Absheron region. Average annual air temperature — +13.1 °C, average monthly maximum temperature — +24.6°C, minimum — +2.4 °C. Air humidity is 76%, annual precipitation is 163 mm. Main wind directions: north, north-west, south and south-west. Average wind speed — 6.8 m/s. The average annual precipitation is less than 200 mm on the southern coast of the Absheron Peninsula, and 300-900 mm in the foothills and lower mountainous zones.

Generally, the Absheron Peninsula vegetation is mainly composed of:

- "Desert flora" (Figure 7-10 on the left) including ephemerals, which are semidesert plant communities formed under conditions of deficiency of moisture and mineral nutrition elements, high temperatures and excessive insolation, growing in flooded areas, on sand or in shallow lagoons; and
- "Steppe flora" (Figure 7-10 on the left) including shrubs and halophytes, prominent representative species of which is saltwort.

Figure 7-5: Typical vegetation cover in the Absheron Peninsula

The substation site is located in the east of Azerbaijan Republic, on the coastal zone of the south-eastern part of the Gobustan plain, in the south-west of the Absheron Peninsula, Absheron administrative region of Baku. The substation will be connected to a new 500kV OHL running to the southwest side of the Project site towards Navahi settlement reaching Navahi substation, to be constructed by Azerenerji.

"Absheron" energy hub is considered the main base of the energy system not only of Baku and the Absheron peninsula, but also of the country as a whole. Thus, a very large amount of load from the large power plants located in Mingachevir, Shirvan and other cities is transferred to the "Absheron" substation, and from here to the system-important 330, 220 kilovolt substations.

Absheron SS is connected with Azerbaijan's 4 largest thermal power substations - "Azerbaijan" Thermal Power Plant, "Sumgait", "Northern" and "Southern" Power Plant, as well as Mingachevir Hydropower Plant, "Sangachal", "Gobu" Power Plants, "Khachmaz" module type power plant. Thus, this substation is the only nodal substation connected to such large generation sources.

Figure 7-6: Location of Absheron SS

7.6 Physical description of the Gobu PP

The site of existing 385 MW Gobu Power Plant and the adjacent 330/220/110/10 kV "Gobu" SS is located in the Gobustan-Absheron zone of the Garadagh region, in the northwestern part of the Gobu settlement, on the western side of the hill called Gosha Yamac. Partially saline gray and gray-brown soils are spread in the area. These lands are spread at an altitude of 16.7-18.3 m above sea level. The characteristic feature of these soils is varying degrees of salinity, high carbonation, presence of 1% humus in the upper layer and the reaction of the solution is strongly alkaline (pH 6.5-6.8). Groundwater environment is 7.1pH. According to its granulometric composition, it is medium granular sand. They are sodium-magnesium soils. Strong water and wind erosion is observed. It should be taken into account that the erosion hazard here is more than 30%. Soil bonitet score is 42. Currently 200 people is working at the station and associated substation.

The substation will be connected to a new 330kV OHL running to the southwest side of the substation towards Absheron WPP (to be constructed by Masdar) and further to Navahi settlement reaching Navahi substation, to be constructed by Azerenerji.

Figure 7-7: Gobu PP and associated SS

7.7 Biological Environment

7.7.1 Flora

The territory of the Republic of Azerbaijan has a rich flora. About 4,500 species of higher, sporulating flowering plants growing in Azerbaijan are united in 125 groups and 920 genera. Considering the project covered areas, the Kura-Araz plain, the Caspian coast and other plains are dominated by desert and semi-desert vegetation. Black salt marshes are widespread in deserts. Garashora's branches spread on the ground, forming mounds, are mostly spread around Garadakh, Salyan-Bilasuvar, and Eastern Shirvan. Saribash deserts with small hills are mostly found around the Caspian Sea, in the Kura-Araz plain.

The plant species found in the republic make up 66% of the total number of plant species growing in the Caucasus. In addition to plant species widely distributed in the Caucasus and other regions, there are about 240 endemic plant species characteristic of Azerbaijan.

The spread of vegetation is determined by the physical and geographical formation of the region, modern soil and climate conditions, vertical zonation and a number of other factors. Thus, in the lowland part of the republic, desert and semi-desert plant types and wetland plants have developed up to 200 meters high.

Desert-type plant groups are found mainly on the Caspian coast, southeast Shirvan, Mil, Mughan and Shirvan plains. Depending on the salinity of the soil, blackberry, khasevdi, meaty, salty, and winter grass plants are common here. Semi-desert vegetation occupies a large area in the steppes of Shirvan, Selyan, Mugan, Mil and Karabakh, as well as in the plains of Jeyranchol, Gobustan and Arazboyu. In

Kura-Araz, Gobustan and Jeyranchol, wormwood semi-desert is dominant as a zonal formation. Among other formations, Karagan (Kur-Araz) and Dengiz (Gobustan, Nakhchivan) formations are more typical for Azerbaijan. Other plants that are common in semi-deserts are: bulbous sedge, Japanese tongalotu, hard gouramat, eastern bozag, chilingburnu, grain grasses and a number of salt grasses (cheran, khasevdi, saribash, wintergreen, etc.). Unique to these areas are tugai forests. Basically, the main trees of the forests spread in the valleys of the Kura, Araz and Gabirri rivers are oak, birch, birch, willow, etc.

In the foothill plains of the Greater Caucasus and the Lesser Caucasus, mainly annual and perennial xerophytic plants and shrubs are distributed at an altitude of 200 m to 600-700 m, sometimes up to 1200 m. Higher up, the areas limited to 1800-2200 meters are made of forests.

The total area of the territory of the Republic of Azerbaijan is 86.6 million hectares, of which 1213.7 thousand hectares are forests. Out of this, the area covered by forest is 989.5 thousand hectares, which is 11.4% of the total area. Forest area per person is approximately 0.12 ha, which is 4 times less than the corresponding global average (0.48 ha).

Although forests in Azerbaijan are small in area, they are famous for their richness of species. 435 species of trees and shrubs grow here, 70 of which are endemic species. Broad-leaved forests are typical for the entire territory of the republic. This type of forests is widespread in the Greater and Lesser Caucasus, Talysh mountains.

Forests consist of three main tree species - beech, hemlock and oak. They make up 86.2 percent of the entire forest cover. Besides these, birch, elm, linden, alder, poplar, linden, willow, etc. broad-leaved trees grow. Coniferous forests make up 1.7 percent of the republic's forests. 7 out of 107 tree species growing naturally in Azerbaijan are conifers. They include European larch, Eldar pine, hook pine, multi-fruited, pungent red, and long-stemmed junipers.

7.7.2 Fauna

97 species of mammals, 357 species of birds, 67 species of amphibians and reptiles, 1 species of roundmouth, 97 species of fish, and more than 15,000 species of invertebrates are known in the territory of the Republic.

As already mentioned, most of the project sites are located in urban areas with high anthropogenic influence. Therefore, the mammalian wildlife that inhabits the areas around the site is dominated by species tolerant to permanent agricultural conditions, such as the common fox (*Vulpes vulpes*), the striped mouse (*Apodemus agrarius*) and the grain mouse (*Microtus socialis*).

There are 10 types of aquatic animals and 54 types of reptiles in Azerbaijan. The project sites are located in semi-arid drylands, which provide a suitable habitat for various reptiles, especially European grass lizard (*Pseudopus apodus*), swift lizard (*Eremias velox*). Common aquatic animals such as the marsh frog (*Rana ridibunda*) or the European tree frog (*Hyla arborea*) are seen in nearby ponds and other bodies of water.

Azerbaijan has a diverse avifauna with 394 bird species recorded from 60 families. About 40% of these species are born in Azerbaijan, and the rest migrate. Although individual species are not mentioned,

many birds are observed in the project areas. Agricultural areas are generally more "bird-friendly" environments than other areas.
The names of 108 species of animals are included in the "Red Book" of the Republic of Azerbaijan. Among them, 14 species are mammals, 36 species are birds, 13 are reptiles and amphibians, 5 are fish, and 40 are insects.

As a result of anthropogenic activity, the fauna of the area has continually decreased. The number of wild animals found in the area has decreased due to high population density. In general, the types of wild animals living in the surroundings are as follows:

- Mammals – Golden Jackal, Red Fox, hare, porcupine, Pipistrelle Kuhli's Bat, common rat and red-tailed gerbil;
- Birds – Common Kestrel, Field Pigeon, Barn Owl, Barn Owl, Pied Wagtail, Black Bird, Nightingale, Rook, Hooded Crow, Common Starling, Blackbird and House Sparrow;
- Reptiles – Mediterranean turtle, Caspian gecko and Viper Snake;
- aquatic and terrestrial - green toad.
- Most of the animals and birds settled in the gardens of private houses. Two main mammals (red fox and golden fox) are observed on the nearby slopes and can only be found in the project area at night (to hunt poultry).

One species of tortoise found in the project area, the Mediterranean tortoise (*Testudo graeca*), is both an internationally and locally protected species, but only inhabits individual fruit and vegetable gardens. Thus, the impact on these animal species is minimal. However, the Contractors must be extremely careful and cautious when operating heavy machinery during the construction phase of the project to avoid injuring animals passing through the project areas. Similarly, the impact on other species is expected to be low. Also, it is recommended not to cut trees during the breeding season (end of April to end of July) to avoid damage to the nests.

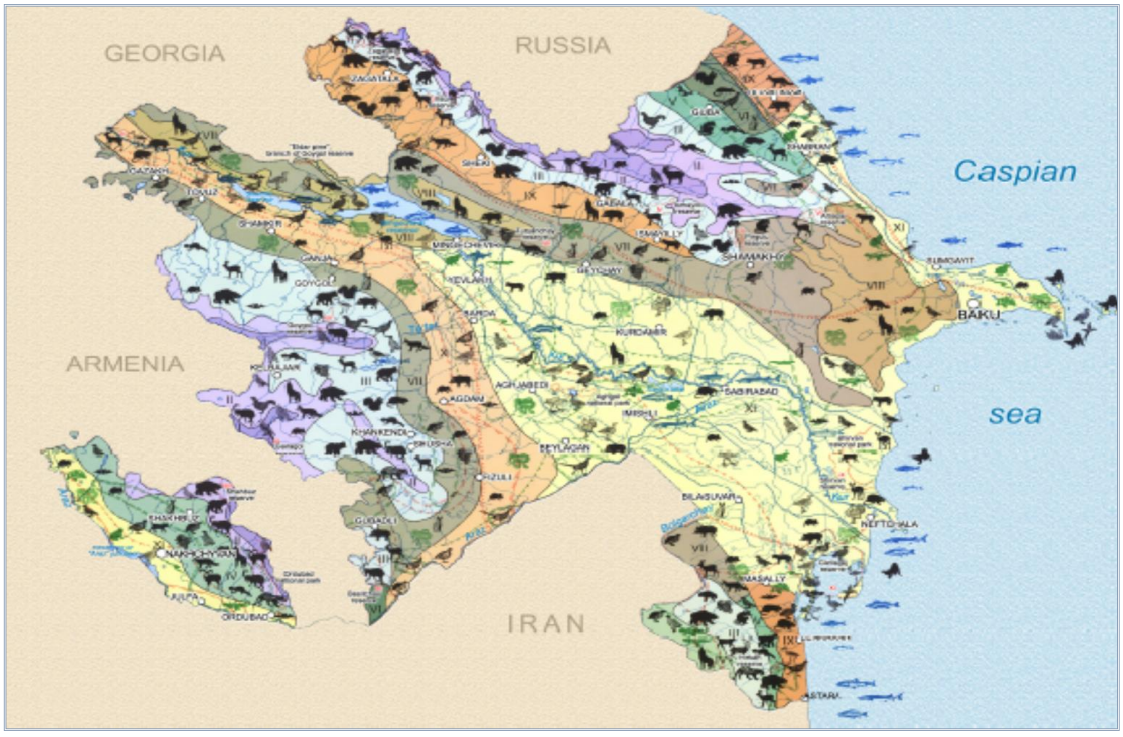


Figure 7-8: Zoogeographical map of Azerbaijan

7.8 Biodiversity, Protected Areas, Wetlands

The Project has the potential to affect the biodiversity (habitats and species of flora and fauna). Special attention will need to be paid to the designated areas, important species and habitats with global, European or national importance (according to the international documents and Azerbaijani legislation). The following text summarizes the study area, identified baseline as well as potential impacts and principle mitigation concerning biodiversity.

7.8.1 Study area

An area of 1,000 metres wide OHL corridor(s) (500 metres on both sides from the longitudinal axis of the transmission line), including the SS location, is used for this ESIA scoping phase to present the baseline in wider context, which is considered as representative and sufficient to identify the current biodiversity status in the broader area and to assess indirect impacts from the Project. For Prime Biodiversity Features and critical Habitats an Ecologically Appropriate Assesment Area (EAAA) will be designed. The baseline area is based on the desk-based information, map of eco-systems of Azerbaijan, and biodiversity surveys undertaken from February to April 2024. Most of the data on habitats and species are from the observations during the executed surveys.

The description of habitats and species composition provided in this Scoping Report was based solely on fieldwork observations. Habitats were identified during the field work based on the present plant associations, dominant (edifier) plant species, preservation status and composition of plant species in all layer of the habitat (trees, shrubs and herbs layers).

For the purposes of the ESIA Report, the study area within the infrastructure corridors (defined for the purpose of this appraisal as 100 metres wide corridor) will be used for consideration of the direct effects on the key biodiversity components affected by the Project – especially habitats. This area is generally considered as zone of influence encompassing the main likely significant ecological effects of the Project, including those which would occur by habitat loss or degradation. However, the study area may be extended to a broader context for important habitats (patches of larger size), disturbance of species, etc.

For the purposes of the ESIA, each site designated for nature conservation interest or proposed for designation (legally protected area and/or internationally recognised area), likely to be affected by the Project, is considered as a study area as a whole in terms to the potential of the project to impact its conservation objective and integrity.

7.8.2 Protected areas

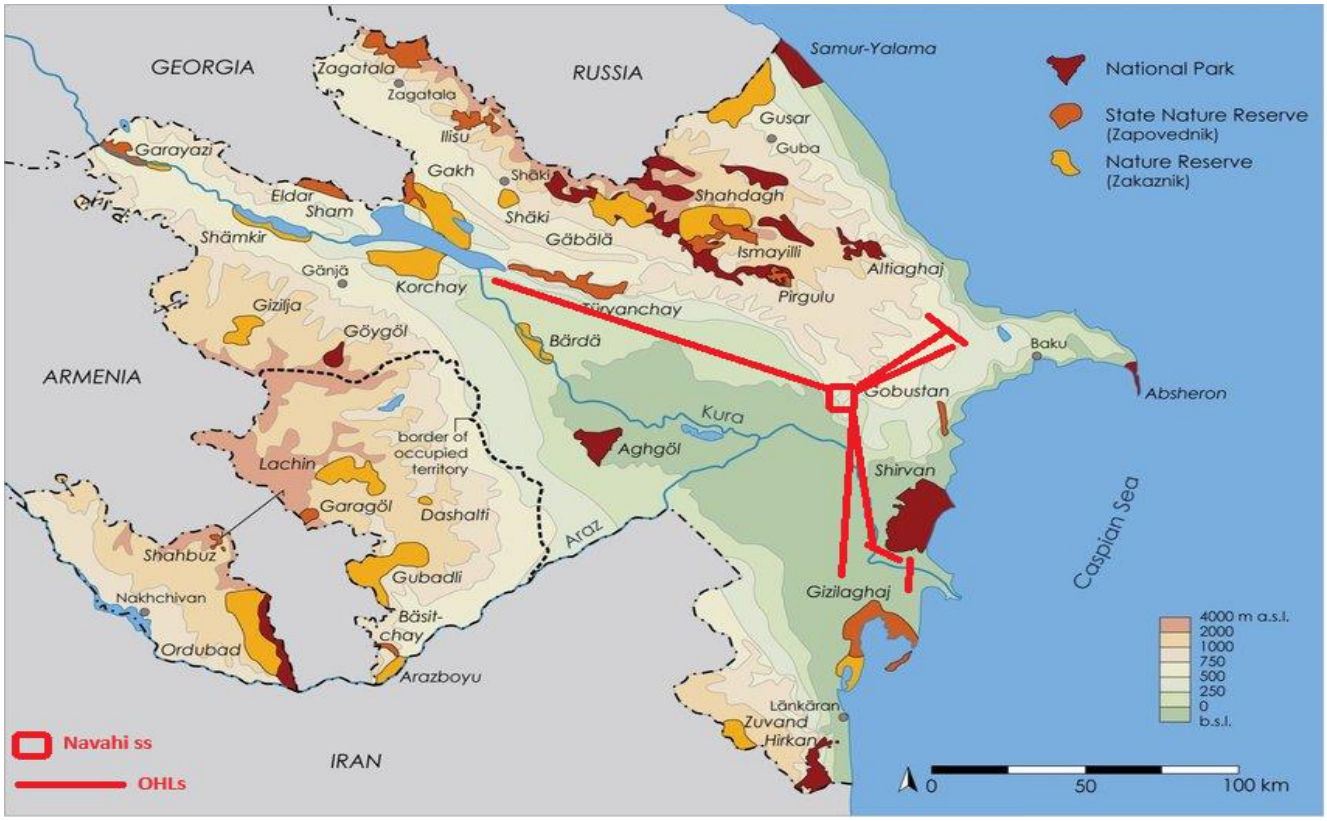
The Caucasus has been designated by the World Environment Fund (WWF) as one of the 25 hotspots in the world in terms of ecological productivity. The Caucasus region has been recognized as a major global ecological area based on criteria such as variety of species, endemism and taxonomic rarity.

The system of protection of public territories is based on multiple structures with different levels of use and protection applied to different categories, as in many countries.

Categories are defined under the State Protected Areas and Controls Act (2000)[8]. The protected sites of Azerbaijan are as follows:

- **National parks**: state-owned, environment, history, etc. land and water areas of special importance. The territory of these areas is used for educational, scientific and cultural purposes.
- **Restricted areas:** these areas are similar to National parks, but they do not need to be publicly owned.
- **The State Nature Reserve** was created to protect nature, wild animals and vegetation and the environment. Only scientific research is allowed.
- **The State Nature Sanctuary** is designed to protect endangered species of animals or plants. According to Azerbaijani legislation, any industrial development, interference with animals and vegetation is strictly prohibited.
- **State hunting reserve:** in these areas, the continuous use of wild animals is allowed by hunting.
- Rare trees, caves or paleontological sites are protected under the name of "**natural monuments**".

The total area of Azerbaijan with specially protected natural areas is 892546.49 ha or 10.3% of the country's territory. There are 10 National Parks (4,87 % of the territory), 10 State Nature Reserves (1,39%) and 24 State Nature Sanctuaries (4,05%) (Table 8). In addition, there are 1038 protected trees (Natural Monuments) and 37 protected geological and paleontological sites. Figure 7-9 shows the locations of protected areas in Azerbaijan.



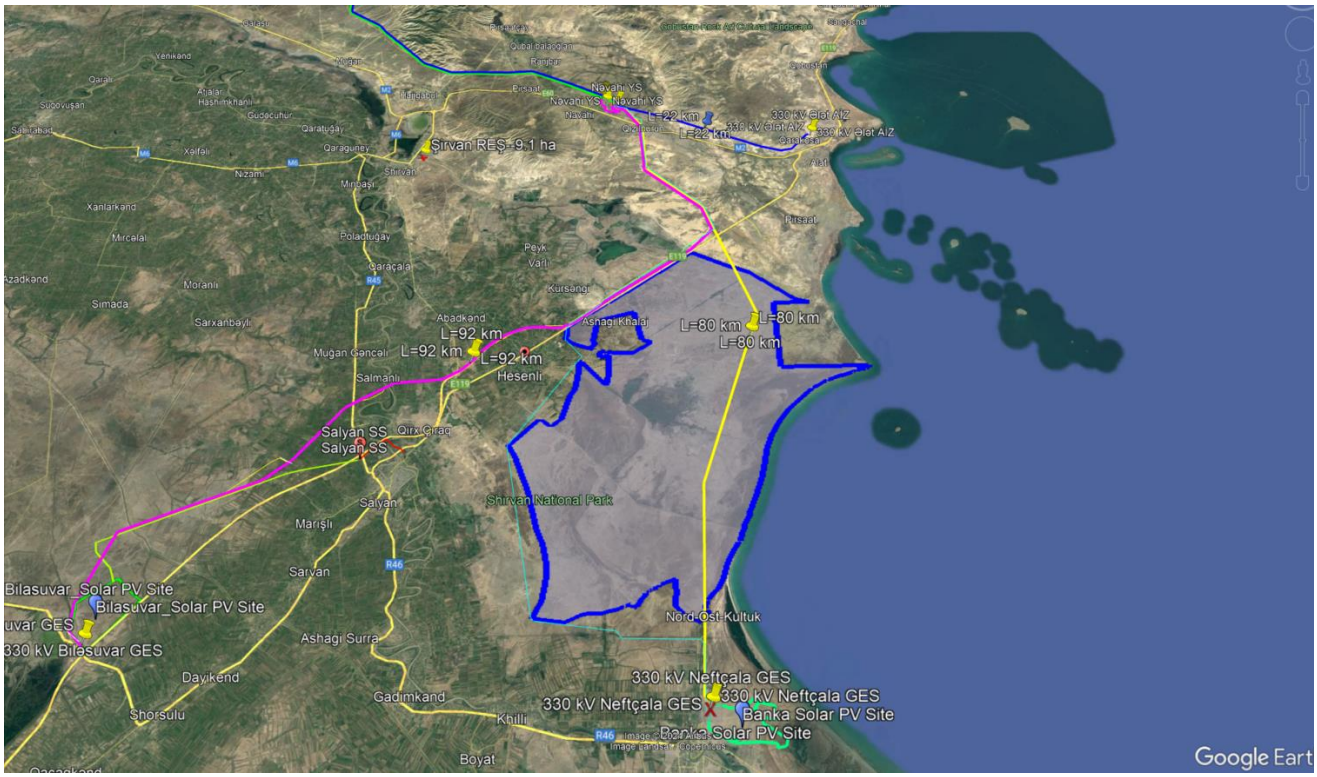
[8] *5th National Report of the Republic of Azerbaijan to the Convention on Biological Diversity (GEF) and the United Nations Development Program (UNDP). 2014 https://www.cbd.int/doc/world/az/az-nr-05-en.pdf*

Figure 7-9: Map of Protected Areas of Azerbaijan

Table 7-1: Protected territories of the Republic of Azerbaijan

	2008	***2009***	***2010***	***2011***	***2012***	***2013***	***2014***	***2015***	***2016***
Number of national parks	*8*	*8*	*8*	*8*	*9*	*9*	*9*	*9*	*9*
Area, thousand hectares	*265,3*	*296*	*310,5*	*310,5*	*322,3*	*322,3*	*322,3*	*322,3*	*322,3*
The number of state nature reserves	*12*	*11*	*11*	*11*	*11*	*11*	*11*	*11*	*11*
Area, thousand hectares	*177,4*	*216,8*	*209,3*	*209,3*	*209,1*	*209,1*	*209,1*	*209,1*	*209,1*
The number of state nature reserves	*x*	*24*	*24*	*24*	*24*	*24*	*24*	*24*	*24*
Area, thousand hectares	*x*	*363,4*	*361,2*	*361,2*	*361,2*	*361,2*	*361,2*	*361,2*	*361,2*

As can be seen from the table above, there are a number of protected areas of international/national importance in Azerbaijan. The scoping phase contributed rerouting of Sub-project 3 to avoid traversing Shirvan National Park (which also includes Shirvan State Nature Reserve) and consulted with design team to consider alternative route. As a result, the initial route was changed to leave the jurisdiction of the NP and the new route will be laid down in parallel to south-west fence of the NP. The figure below shows old and new alignment of 330 kV Banka-Navahi OHL.



Legend:

- Boundaries of Shirvan NP
- Old alignment of Banka-Navahi OHL
- New alignment of Banka-Navahi OHL
- Alignment of Bilasuvar-Navahi OHL

Figure 7-10: Old and shifted routes of Banka-Navahi OHL avoiding encroachment with NP

Besides, a certain section of 235 km 500 Kv Navahi SS – Azerbaijan TPP OHL and 220 km 330 Kv Navahi SS – Mingachevir HPP OHL which are going in parallel till Mingachevir town will be stretched along the south-west boundaries Turyanchay State Nature Reserve when they reach to Goychay region. The distance between the both OHLs and boundary of the Turyanchay NR is more than 1000 m (see Figure 7-11 below).

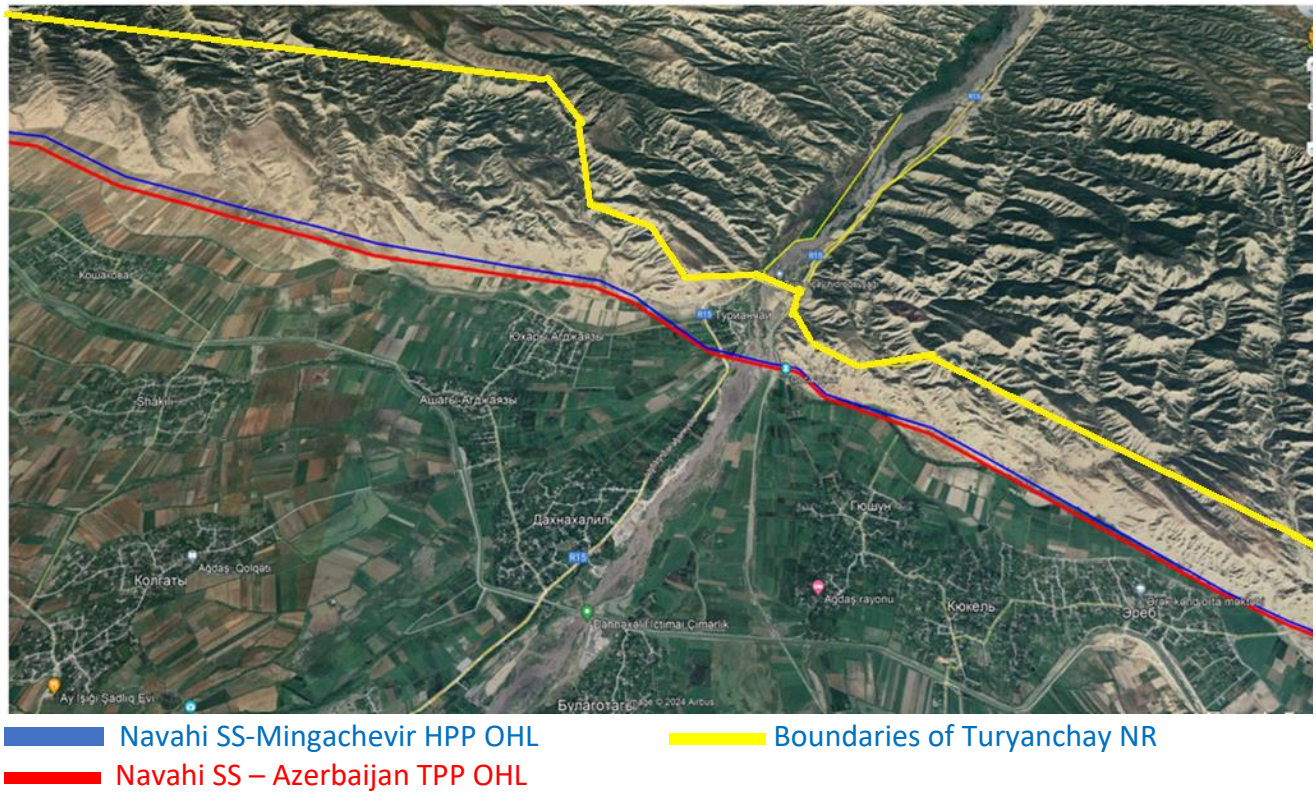


Figure 7-11: Alignment of OHLs and boundaries of Turyanchay State Nature Reserve

7.8.3 Wetlands

Wetlands of Azerbaijan perform functions such as flood control, water purification, water regulation, production of fish and etc. They exist at all elevation zones from marches in river deltas, to swamps, lakes, and creeks in alpine regions. There are 250 wetland areas, including mountain lakes with total area of 250 km^2. Ten of which have the surface area more than 5 km^2. Some of the lakes are freshwater and others are saltwater lakes. Wetlands are being categorised as followings:

1. Wetlands of Kura-Araz lowlands
2. Wetlands of Absheron;
3. Mountain wetlands

Ramsar Sites of Azerbaijan Ag-Gol and Ghizil-Agaj and many other wetlands in the Kura floodplain play important role for flood mitigation and water supply for fish. Most of the wetland areas are located on the Caspian Sea Coast and Kuta-Araz lowlands. Before their area made up 80,000 ha (in the middle of last century). Now area of wetlands has been dramatically decreased in result of anthropogenic activity, including construction of cascade on water reservoirs on Kura and Araz rivers.

The largest wetland in Kura-Araz lowlands is Sarisu. It is located in lowlands with an area of 65.7 km^2 and capacity of 59.1 million m^3. One of the wetlands formed as a result of easy meandering of Kura River is stagnant at Hajigabul Lake. The area of it is 8,4 km^2, and average depth is 1.4 m, length is 4.2 km., the capacity is 12.1 million m^3. Ag-Gel (56.2 km^2), and Mekhman (35.0 km^2) lakes are also main wetlands of this area. The total area of these 4 wetlands of Kura-Araz lowlands make up 165 km^2.

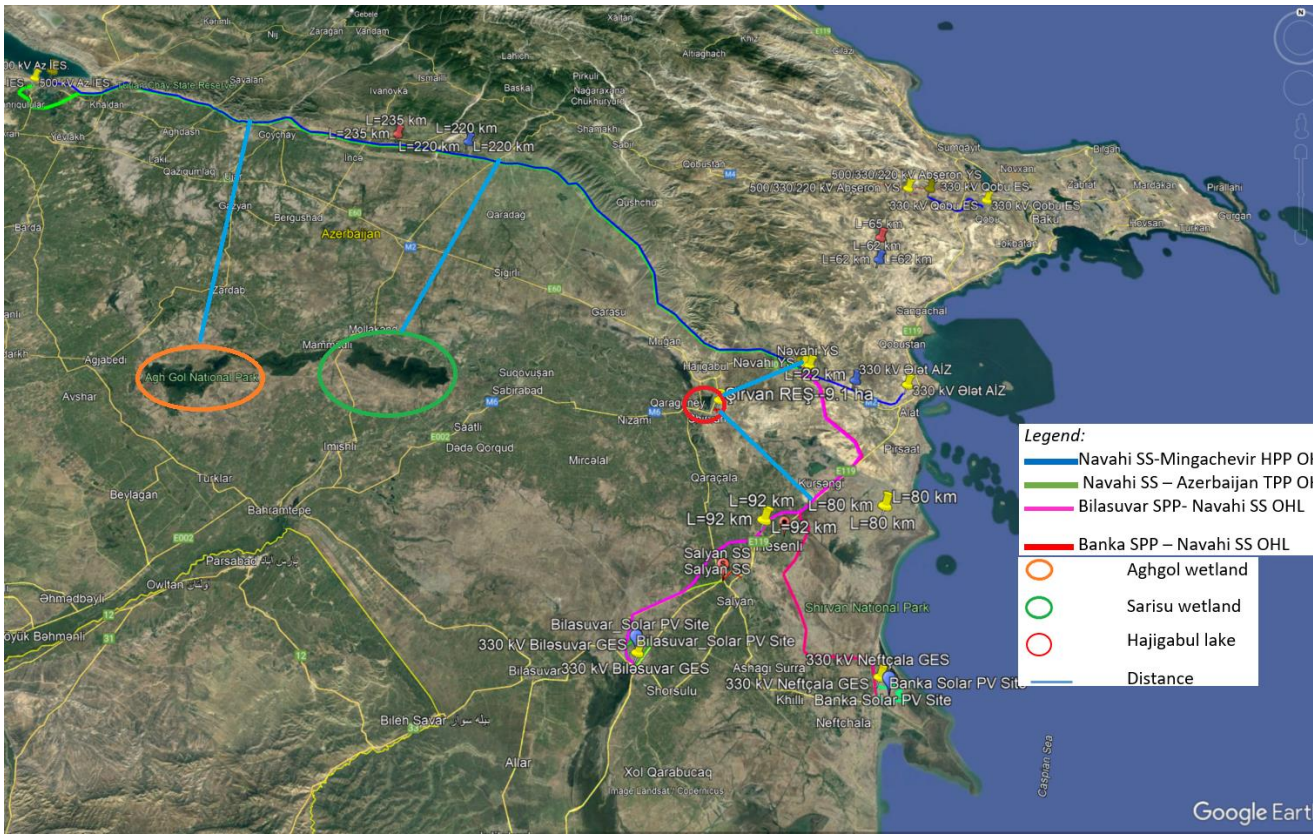


Figure 7-12: Wetlands located in proximity to Sub-Project 2 and 3.

As we can see from the Figure 7-12 above, both wetlands are far away (app. 50 km) from the OHLs of Sub-Project 2 and 3 (500/330 Kv Navahi-Mingachevir and Navahi-Azerbaijan TPP) and will not be impacted by the project construction activities. Hajigabul lake is also quite far (about 20-25 km) from the 1st and 3rd sub-projects (Navahi ys and Banka GES-Navahi EVX, Bilasuvar GES-Navahi ys) and will not be affected by construction works within the project. Besides, Project related infrastructure (such as contruction camps, access roads, material plants etc) will be placed to ensure avoidance of any impacts on the wetland areas. The detailed mitigation measures will be provided under respective site-specific ESIA/ESMPs.

7.8.4 Climate

Azerbaijan has a widely variable climate due to the altitude and geomorphological differences in the entire area and its position on the northern side of the subtropics. A greater influence on the climate is provided by the Caspian Sea. The maximum temperature reaches 44°C and the minimum temperature can drop to minus 42°C. Rainfall can also vary from 200 to 1,800 mm. Despite these limits, the Greater Caucasus mountain range is a natural barrier against cold air from the north, and the Lesser

Caucasus blocks warm tropical air from the south. As a result of the complex influence of topography, most of the country has a dry and hot subtropical climate.

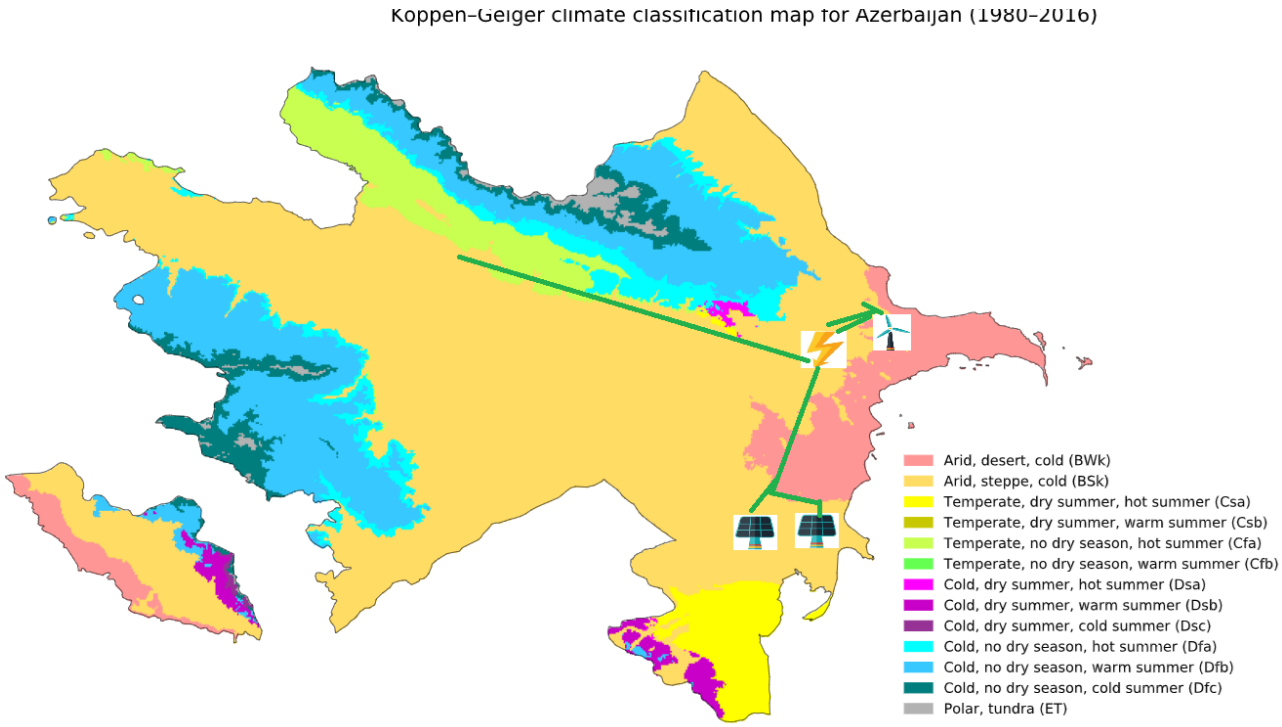


Figure 7-13: Climate zone of Azerbaijan with project components

The climate of the region is of several types: moderate warm, semi dry desert and dry steppes climate with a dry summer; moderate warm with a dry winter; cold with a humid winter. The annual average air temperature varies from 14° C in the south and lowlands to 2° C in the north and highlands. The absolute minimum is -18° C and -26° C respectively and the absolute maximum is 40° C and 30° C respectively. The precipitation amount during the year rapidly increases from the south (300 mm) to the north (900 mm) (see below Figure 8-2). Western winds are dominant here with an annual average velocity up to 15 m/s.

The area of sub-project 1 is located in the Navahi settlement of the Hajigabul region. Hajigabul district has an arid, steppe and cold climate with hot summers and cool winters with little to minimal precipitation. Precipitation is highly seasonal, with the region receiving significantly more rainfall in winter than in summer. The average temperature is 2 °C in January and 26 °C in July.

The OHL in sub-project 2 passes through the regions of Hajigabul, Aghsu, Shamakhi, Goychay, Ismayilli, Yevlakh and the town of Mingachevir. The climate in the areas varies from arid steppe cold (BSk) to humid subtropical climate (Cfa); the BSk climate is too dry to support a forest but not dry enough to be a desert, with annual temperature less than 18°C; usually consisting of grassland plains, whereas the Cfa climate is characterised by hot summers and frequent thunderstorms, with temperatures in the coldest month ranging from 0°C -3°C to 18°C and an average temperature in the warmest month of 22°C or higher.

The evacuation lines for Sup Project 3 cross the Neftchala, Salyan, Bilasuvar and Hajigabul regions. The climate in these regions varies between arid steppe cold (BSk) and arid desert cold (BWk), with hot, dry summers and usually cold, dry winters; annual temperature range 25.2 °C.

Areas of Absheron region and Mingachevir city, where construction of Mingachevir HPP and Gobu PP are considered within subproject 4, are characterised by arid steppe cold (BSk) and arid desert cold (BWk) respectively.

Figure 7-14: Average annual precipitation and temperature in Azerbaijan

Air quality in Azerbaijan is generally good, but air quality in Baku and the Absheron Peninsula is considered a serious problem. The main cause of air pollution is industry, with transport accounting for more than 60% of emissions from mobile sources (UNECE 2020).

In general, air quality is very good in most of the project areas due to the high level of agriculture and low level of industry.

7.9 Socio-economic description of the Project areas

The Project has the potential to affect the living of the local population and communities in the Project region, thus initiating a need for land acquisition and causing minor potential disruption of life during the construction phase. This section provides an overview of the current social baseline and potential impacts of the affected local communities and individuals and describes the principle mitigation approach.

İn Azerbaijan Republic, the calculated number of population in accordance with the results of the 2019 population census at the beginning of 2023 made 10127,1 thousand persons (with the exception of the population living on the territory of the Republic of Azerbaijan, where the Russian peacekeeping contingent is temporarily deployed). 5527,2 thousand persons or 54,6% of population live in urban areas and 4599,9 thousand or 45,4% - in rural areas, 5039,6 thousand persons or 49,8% of total population of the country make men, 5087,5 thousand persons or 50,2% - women. There are 1010 women per 1000 men[9]. Distribution of population by administrative territorial units of the Republic of Azerbaijan at the beginning of 2023 is given in Figure below.

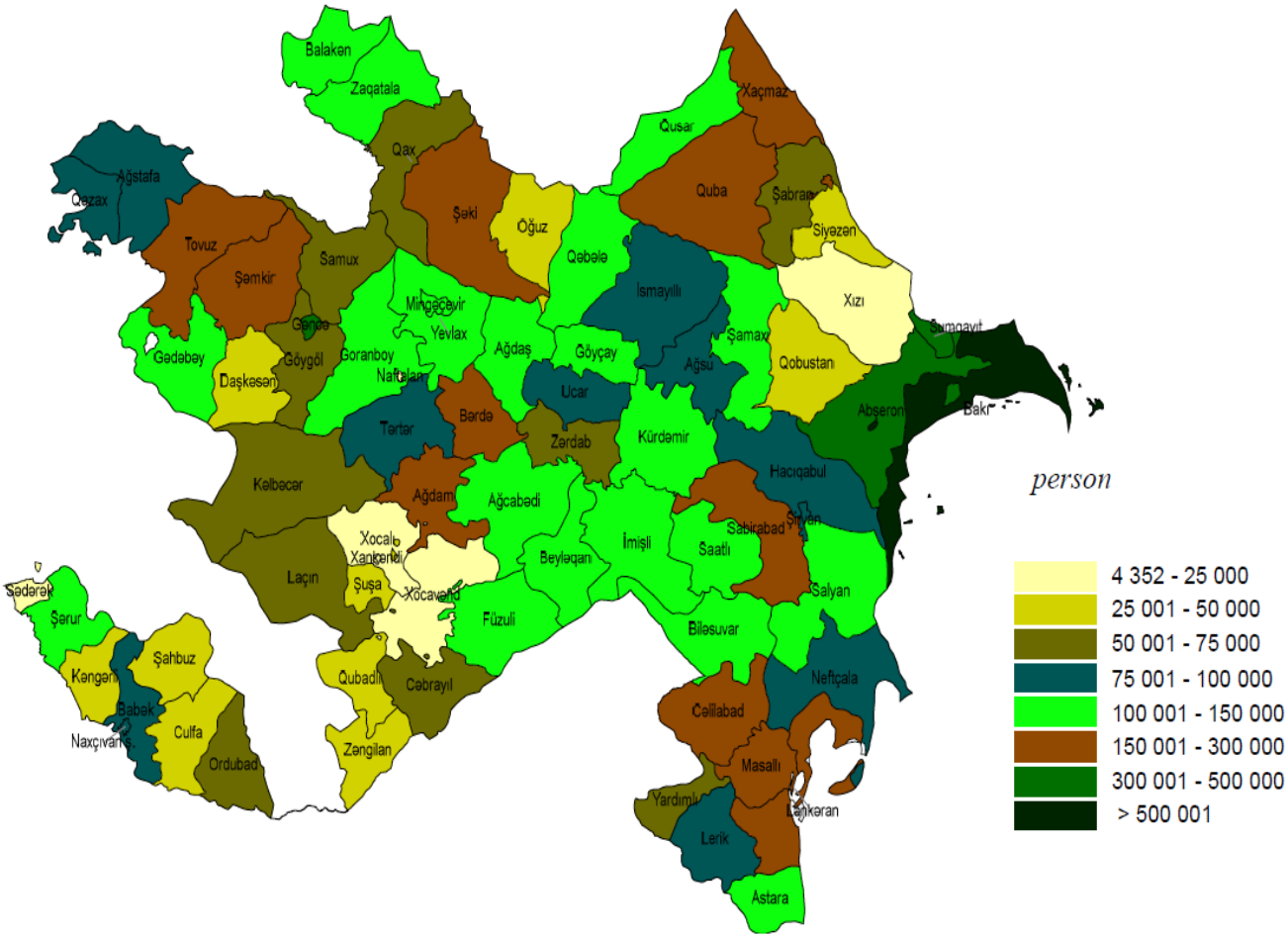


Figure 7-15: Distribution of population by administrative territorial units

[9] https://www.stat.gov.az/source/demography/

7.9.1 Study area

For the purposes of the assessment, the study area is extended to a distance of 1 km from the Project elements (the substation location and OHL corridors) to include communities where private assets (e.g. residential properties, facilities and businesses) or community facilities (e.g. schools, religious temples, cemeteries) may potentially be affected during the Project implementation.

The Project area is situated in south and central part of Azerbaijan, thus affecting territory of fourteen regions (municipalities): Neftchala, Bilasuvar, Salyan, Hajigabul, Garadagh, Yevlakh, Agdash, Gobustan, Goychay, Ismayilli, Shamakhy, Absheron, Aghsu and Mingachevir town.

7.9.2 Resources (electricity, water, fuel etc.)

Azerbaijan has the capacity to generate approximately 7,025 MW of electricity, of which 6,299 MW is provided by thermal power plants and the rest by hydropower plants. In the north, a combined plant with a capacity of 400 MW is under construction. Thus, the total possible system capacity will soon be close to 7,500 MW. In addition to the above, various state-owned and privately owned enterprises contribute an additional 170 MW to the country's electricity generation capacity.

Currently, 80% of Azerbaijan's energy production capacity is located in its western part. However, 70% of energy consumption is concentrated in the east, northeast and southeast. In this regard, the fuel is transported hundreds of kilometers west of the Absheron peninsula to large thermal plants. The generated energy is then transmitted back to the Absheron Peninsula and distributed to the northern and southern regions. The west and east of Azerbaijan are connected by two 500kV transmission lines (sometimes 330 kV) and relatively large energy losses occur.

The country's distribution networks include 7 regional distribution networks (ie Baku, North, South, North-West, Central Aran, Aran and West) and the Nakhchivan network. Existing distribution networks in small towns and rural areas are old and fragile, unable to provide consistent and high-quality service to consumers, which affects the living conditions of families and discourages new economic activities.

Water resources are distributed unequally. Water resources of Gobustan and Garadagh regions are very limited and makes up only 50 m3 per person annually. In contrary to this in mountain areas of the project zone, in the basins of Turyanchay, Geychay and Girdimanchay rivers this figure makes up several thousands cubic meters per person. Due to these water resources in the mountain areas, Baku and Sumgait cities are provided by water coming from these regions of Azerbaijan. One of the new sources is Oguz Gabala water pipeline, which was constructed recently.

About 1.2 billion m3 water is drawn from underground sources in Azerbaijan. The average per capita consumption of drinking water is about 130 liters per day, relatively low by international standards. Ground waters of the region mainly are formed by the precipitations, rate of which is high in the mountains. The total potential of ground waters to be used annually make 400 - 500 Mio m3 in the mountain Shirvan area. Now use of ground waters is very low.

7.9.3 Employment in project traversed regions

According to the preliminary data as of July 1, 2023, the number of economically active population in Azerbaijan was 5 million 224.3 thousand people, of which 4 million 934.5 thousand people were employed, 289.8 thousand people (or 5.5%) constituted an unemployed population. Azerbaijan's total GDP was just over USD 78 billion in 2022. The GDP annual growth rate was 2.2% for 2019, and -5% for 2020, 1.9% for 2021 and 4.5% 2022. Per capita income has increased significantly in recent years growing to 7 762,07 USD in 2023. The highest unemployment rate was observed in Baku (21 %). See the table below for employment rates across the regions covered by the Project.

Table 7-2: Number of unemployed population by economic regions and administrative-territorial units[10]

Territorial unit	**2018**	**2019**	**2020**	**2021**	**2022**
Azerbaijan Republic	253827	252076	368667	310485	293286
Baku city - total	74906	57861	86459	74959	70931
Absheron-Khizi economic region - total including:	15705	19935	30056	25457	23824
Absheron region	4187	10236	15557	12560	11744
Mountainous Shirvan economic region - total including:	7686	7129	10522	8656	8142
Agsu region	38790	38994	38377	39758	40474
Ismayilli region	42090	42633	41780	43117	43936
Gobustan region	22444	19721	19297	20166	20791
Shamakhi region	48195	44830	44247	45575	46577
Central Aran economic region - total including:	***21309***	***21938***	***30920***	***25361***	***24042***
Mingachevir city	*6901*	*3454*	*4671*	*4170*	*3996*
Agdash region	*2605*	*3547*	*4975*	*4212*	*4022*
Goychay region	*2905*	*3883*	*5504*	*4433*	*4142*
Yevlakh region	*2898*	*4063*	*5812*	*4604*	*4405*
Shirvan-Salyan economic region - total including:	***12285***	***14020***	***20118***	***16875***	***15977***
Bilasuvar region	*2194*	*2379*	*3578*	*2944*	*2787*
Hajigabul region	*1795*	*2123*	*3098*	*2595*	*2457*
Neftchala region	*2300*	*2572*	*3738*	*3079*	*2917*
Salyan region	*2902*	*3470*	*5078*	*4181*	*3964*

[10] *State Statistical Committee of Azerbaijan*

The employment rate in the villages, adjacent to the proposed power lines is similar to the average values indicated for the municipalities. The people in the villages are mostly self-employed involved in non-intensive agricultural activities. The main sectors of agricultural activities are related with cattle breeding and cultivation of annual crops like maize, beans and vegetables. It should be mentioned, that majority of population is presented by aged people, mostly pensioners, due to the fact, that the young population has already migrated in country to the main cities looking for employment opportunities or abroad, with the same reason.

The self-employment in agricultural activities is the main source of income for local population except Garadagh region. Locals are selling primarily milk products to the local markets or to the towns in southern and central Azerbaijan. The number of employed people in the target villages is very low. The industrial facilities or large-scale farms practically does not exist and employment is related mostly with government structures, education sector and services in the region.

Economy within the Garadagh region is dominated by the industrial sector, primarily including oil and gas (State Oil Company of Azerbaijan Republic "SOCAR" facilities), cement production factories, and stone quarries, followed by services (i.e., school, kindergarten, shops), agriculture, and tourism (related to the presence of Gobustan Reserve, mud volcanoes and new geopark to be established) sectors. Based on the information gathered via interviews held with local administrations (community leaders and municipalities' representatives) and operating companies, main local businesses in Gobustan and Alat municipalities' area include trading, small farming, animal husbandry (i.e., sheep-breeding), and heavy vehicle transportation of gravel and sand.

Most of employees are locals or residents of other regions of the country, while foreign specialists are generally less involved. However, within local communities in Garadagh, there is the feeling that more labour force is attracted from other regions of Azerbaijan and the local residents are thus left without work. The average daily income ranges approx. between 10 and 30 AZN in the investigated area, corresponding to approx. 6-18 USD (considerably lower if speaking about herders especially during drought), and labour conditions are considered generally good by stakeholders engaged. No inequalities for gender in terms of income / employment are perceived.

Job opportunities in Gobustan and Alat municipalities slightly increased over the last five years, with reference to positions like electrician, foreign language teacher, crane operator, welder, computer science specialist, and metal worker.

7.10 Specific data related with project footprints

The Project crosses 13 Regions and 1 town of Mingachevir of Azerbaijan Republic. The GoA funded Project traverses five Regions, namely Salyan, Hajigabul, Neftchala, Bilasuvar and Absheron. Totally, 10 villages of Salyan, 2 villages of Hajigabul, 2 villages of Neftchala, 1 settlement and 2 villages of Absheron are crosses by the GoA Project. No villages of Bilasuvar Region are crossed, only grazing area.

Table 7-3: GoA-funded project Area-specific information at the level of regions and villages

	GoA Funded Project Area					
No	Regions	Villages	Area (ha)	Population	Main activities	Distance to OHL/ss
1	Salyan	Xurshud	1,515	985	farming, animal husbandry	1ooo m
		Ashagi Noxudlu	840	2103		1500 m
		Yuxari Noxudlu	630	1004		1000 m
		Chuxanli	1,660	3,373		1500 m
		Abadkend	1,302	3,259	farming, animal husbandry and viticulture	1000 m
		Khalaj	1,320	3,349		1000 m
		Yenikand	830	3,210		2000 m
		Shakarli	870	2,430		2000 m
		Salmanli	2,140	950	Farming, animal husbandry and greenhouse work	1500 m
		Hasanly	650	1,500	Farming and animal husbandry	2000 m
2	Hajigabul	Navai	2,208	1,800	farming, animal husbandry	1200 m
		Gizilburun	1,600	1,902		1000 m
3	Neftchala	Shirvanly	1,000	540	farming, animal husbandry, fishing	2000 m
		Banka	270	7,067		1000 m
4	Bilasuvar	-				
5	Absheron	Gobu	3834	18900	animal husbandry	1500 m
		Atyali	500	12000	animal husbandry	1500 m
		28 may	200	2400	Farming, animal husbandry, weaving	1500 m
Total	5	17		66,772		

Below some basic demographic and socio-economic information on villages are provided.

Salyan

The most populated village of Salyan Region traversed by the GoA funded Project is Chukhanly (3,373 people) with the area of 1,660 ha. The population of the village is mainly engaged in agriculture and animal husbandry. There are 2 incomplete and 1 complete schools in the village, medical services are provided by 1 medical station and 1 doctor. **Salmanly** is the largest village (2,140 ha), although its population is only 950 people. The village has 1 incomplete secondary school and 1 medical station

with 1 nurse. The local economy is divided between agriculture, livestock and greenhouse activities. The villages of **Yenikand** and **Shekerli** have almost similar data of population, economic activities and socio-economic services with a slight predominance of the area of Yenikend (3,210 ha) to Shakarly (2,430 ha). The population of the villages is 830 and 870 respectively. The main occupations of the inhabitants of both villages are agriculture, animal husbandry and viticulture. Each village has 2 schools (1 incomplete and 1 complete) and 1 medical station with a doctor. **Khalaj** and **Abadkend** have almost the same population (1,320 vs. 1,302) and area (3,349 vs. 3,259). The economic activities are the same - agriculture, animal husbandry and viticulture. 1 health centre with 1 doctor each provides medical services to the population of both villages. There are 2 schools in Khalaj and 1 in Abadkend. **Ashaghy Nokhudlu** and **Yukhary Nokhudly** are two neighboring villages with area of 840 ha and 630 ha respectively. The population of Ashaghy Nokhudlu is almost twice that of Yukhary Nokhudly (2,103 vs. 1,004). The main economic activities in both villages are agriculture and animal husbandry. There is 1 complete secondary school in Ashaghy Nokhudlu and 1 incomplete one in Yukhary Nokhudly. In each village there is 1 medical station with a doctor in AN and a nurse in YN. **Xurshud** has a population of 985 people and an area of 1,515 ha. The main economic activities are agriculture and animal husbandry. 1 incomplete secondary school and 1 medical station serve the village population.

Hajigabul

Only two villages in Hajigabul are crossed by the GoA-funded project. Navai village has a smaller population than Gizilburun (1,800 vs. 1,902), but a larger area (2,208 ha vs. 1,600 ha). The population of both villages is mainly engaged in agriculture and animal husbandry. There is 1 full secondary school in each village, and 1 nursery school in Navai. Each village has 1 medical station with a doctor providing medical services to the population.

Further details on economic activities and other information by gender segregation could not be obtained due to the very limited information available at village level.

Neftchala

The evacuation of the 330 kV Banka-Navai transmission line passes through the village of Shirvanly in Neftchala, making it the second affected village in Neftchala Region. The area of Banka village is smaller, only 270 ha (1,000 ha in Shirvanly), while the population is larger than in Shirvanly (7,067 vs. 540). Shirvanly village has a complete secondary school and a functioning library, and a health centre with a nurse serving the villagers. A complete secondary school, a kindergarten, a club and a library are functioning in Banka village; medical services are provided by a health centre staffed by two doctors and seven nurses. The main economic activities in both villages are agriculture, livestock and fishing.

Absheron

Three settlements in the Absheron region crossed by the GoA project are Gobu, Atyali and 28 May. The largest settlement, Gobu, has an area of 3,835 ha and a population of 18,900. The settlement has three complete secondary schools, two kindergartens and a cultural centre. Medical services are provided by a polyclinic with three doctors and four nurses. There are 30 different shops operating in the settlement. The main economic activities of the local population are agriculture, animal husbandry and weaving. For various socio-economic and health activities, residents of 28 May and Atyali villages go to the nearby settlements of Hokmeli, Mushviqabad or Gobu.

Project area and population of AZURE Project

The Azure Project crosses eight Regions, namely Aghsu, Goychay, Aghdash, Yevlakh, Ismayilly, Shamakhy, Hajigabul, Gobustan and the town of Mingachevir. In total, 34 villages in seven Regions will be crossed by the Azure Project; no villages in Garadagh Region will be crossed, only grazing land.
The total area of the settlements crossed by the Azure Project is approximately one hundred thousand hectares (94,800 ha), with a population of 193,414.

Seven villages of Aghsu crossed by the Azure Project occupy the largest area among other Regions (23,102 ha), almost a quarter of the total area crossed by the Azure Project. The village of Gagaly is the largest among the villages of Aghsu Region (7,054 ha) and the most populated (4,523 people). The smallest villages are Ulguc and Dashdamirbayli with the area of 622ha and 567ha respectively. Ulguc is also the least populated village in the Region.

The most populated Region crossed by the Azure Project is Yevlakh, ten villages with a total area of 13,737 ha and a population of 17,694 people. The smallest village in Yevlakh is Boshchaly with an area of 214 ha and a population of 245 people. The village of Tanrigulular has the largest area of 2,576 ha, although Salahly is the most populated village crossed by the Azure Project with a population of 3,200 people.

The only village in Ismayilly Region crossed by the Azure Project - Qubakhalilly - is quite large and populated, with a total area of 9,529 ha and a population of 2,322.

Shamakhy is crossed by two villages with a total area of 1,060ha and population - 1,860 people.
In Goychay and Hajigabul Regions, five villages each will be crossed by the Azure Project; the area of the villages crossed in Hajigabul exceeds that of those in Geoychay, 16,580 ha vs. 12,021 ha respectively, while the population of the villages in Goychay exceeds that of those in Hajigabul, 17,683 vs. 11,661 respectively.

Four villages of Agdash with a total area of 4,818 ha and a population of 4,819 people will be crossed by the Azure Project OHL. Arabochaghi village has the largest area (2,200 ha), while Yukhari Agchayaz is the most populated.

The town of Mingachevir is the largest and most populated residential area crossed by the Azure Project, with an area of 13,953 ha and a population of 122,261 people.

Economic activities

The people of the villages in the Azure Project area are mainly engaged in agriculture, livestock and poultry farming. In addition, people in Charagoyunlu and Gashad villages in Aghsu Region are also involved in beekeeping. The people of Arash village in Yevlakh Region are also involved in the cultivation of grain, clover and viticulture. The main economic activity of Qubakhalilly village in Ismayylli Region is grain cultivation. Part of the population of the project area is employed in the industries of the nearby urban areas. For example, a large part of the population of Arabchabirly 1 village is engaged in urban industry in Goychay. About 300 people from Arabochaghi village of Aghdash work in the agricultural park, which is engaged in poultry farming, pomegranate and fruit orchards. Some people from Gizilburun village in Hajigabul Region work in the oil and gas industry in Shirvan,

while others work in the transport department of Gobustan. The villagers of Atbulaq village are mainly involved in industrial estates and brickworks.

The population of the town of Mingachevir is engaged in work at Mingachevir Water Electric Station (WES), Azerbaijan Termo Power Plant, Mingachevir State University. In addition, people work at the Industrial Park, which operates a knitting industry, among others. New textile factories to be built by 2025.

Table 7-4: WB funded project Area-specific demographic and economic activity information at the level of regions and villages

No	Region	Villages	Area	Population	**Main economic activities**	**Distance to OHLs**
1	Aghsu	Lengebiz	2,525	1,480	farming, animal husbandry	500 m
		Bico	5,866	2,151		500 m
		Gagali	7,054	4,523	farming, animal husbandry, beekeeping	500 m
		Dashdamirbayli	567	1,160		500 m
		Gharagoyunlu	4,418	3,938	Agriculture, farming, beekeeping	500 m
		Ulguch	622	623	Agriculture, beekeeping	1000 m
		Gashad	2,050	1,239	Agriculture, farming, beekeeping	500 m
Total		7	23,102	15,114		
2	Goychay	Garabagghal	5,000	4,700	Animal husbandry, farming	1200 m
		Mirzahuseyinli	887	959	farming, wine production, poultry farming	1000 m
		Arabchabirli 1	754	3,384	Mainly involved in nearby urban industry; farming	1000 m
		Arabchabirli 2	1,380	1,340	Animal husbandry, farming	1000 m
		Gharameryem	4,000	7,300	Farming, grain farming, animal husbandry	1000 m
Total		5	12,021	17,683		
3	Agdash	Yuxari Agchayazi	730	1,334	farming, gardening, animal husbandry	1000 m
		Qoshaqovaq	1,180	1,305		1000 m
		Arabochagi	2,200	950	Agriculture, livestock farming, around 300 people work in the agricultural park (poultry farming, pomegranate orchards, fruit orchards, etc.)	1000 m
		Hushun	708	1,230	Gardening, fruit and vegetable farming	1000 m
Total		4	4,818	4,819		
4	Yevlakh	Arash	1,740	2,515	farming, animal husbandry, grain, clover, viticulture	1500 m
		Akhsham	647	1,264	Agriculture, farming, animal husbandry	500 m
		Gulovsha	1,415	1,766	Agriculture, animal husbandry, farming	500 m
		Havarli	2,200	2,900		500 m

No	Region	Villages	Area	Population	**Main economic activities**	**Distance to OHLs**
		Haciselli	1,400	1,054		1500 m
		Salahli	2,142	3,200		1500 m
		Huruushagi	982	851		500 m
		Tanrigulululular	2,576	2,985		1000 m
		Boshchali	214	245		500 m
		Yuxari buchag	421	914		1000 m
	Total	10	13,737	17,694		
5	Ismayilli	Qubakhalilli	9,529	2,322	Grain farming, animal husbandry	1500 m
	Total	1	9,529	2,322		
6	Shamakhi	Chol Goylar	60	246	İndividual farming, agriculture	500 m
		Ovculu	1,000	1,614		1000 m
	Total	2	1,060	1,860		
7	Hajigabul	Navahi s.	7,000	2,300	Agriculture, animal husbandry	1200 m
		Rancbar	4,850	3,800		700 m
		Qizilburun	1,600	1,902	Oil and gas extraction industry located in Shirvan; Gobustan transport department; Farming and animal husbandry	1000 m
		Pirsaat	1,930	1,195	Agriculture	700 m
		Atbulaq	1,200	2,464	People working in industrial estates and brickworks; gardening and animal husbandry	1500 m
	Total	5	16,580	11,661		
8	Mingachevir town		13,953	122,261	Hydro Power Station (HPP), Termo Power Plant (TPP), Mingachevir State University (MSU); Industrial park knitting industry; textile factories by 2025	500 m
Grand Total		34	94,800	193,414		

Gender distribution

The gender distribution of the population in the Regions and villages crossed by the Azure Project is almost 50% to 50%, with a minor prevalence in the number of men or women. Thus, in Lengebiz, Dashdamirbaily and Ulguch villages of **Aghsu**, number of males slightly prevails a number of females accordingly (50.7% vs. 49.3%; 51% vs. 49%; and 51.4% vs. 48.6%), whereas in Gagali and Gharagoyunlu villages, slight predominance in number of females is observed accordingly (49.7% vs. 50.3%, and 49.1% vs. 50.9%). In two other villages, Bicho and Gashad, the gender ratio is markedly different, with a male predominance in Bicho (53.5% vs 46.5%) and a female predominance in Gashad (53.5% vs 46.5%).

In the Azure project crossed villages of **Goychay** Region, the gender distribution is equal only in Garabaqqal village (50% vs 50%). In Mirzahuseyinly, Arabchabilrli 1 and Arabchabilrli 2, the

predominance of women is obvious and makes up 60% in each of these villages, whereas in Gharameryem village, men predominate in number (55% vs 45% respectively).

The gender distribution in all villages crossed by the Azure Project in **Aghdash** Region is with a predominance of women. In the village of Yukhari Agchayaz, 60% of the population are women, in Arabochagi it is almost 58%. In the villages of Qoshaqovaq and Hushun, the predominance of women is very low at 51%.

In the most densely populated Region, **Yevlakh**, the prevalence of gender distribution varies from village to village. In the villages of Tanrigulular and Yukhari buchaq, there is a minor predominance of men (50.3% and 49.7% respectively). In the villages of Salahli and Gulovsha there is still a slight male predominance (51% and 51.9% respectively), while in the villages of Havarly, Axsham and Arash there is a clear male predominance (60% vs. 40%, 54.4% vs. 45.6% and 53% vs. 47% respectively). In three villages of Yevlakh Region, Hachiselli, Hurushaghi and Boshchali, the number of women is predominant with 57%, 50.6% and 54.7% respectively.

In **Ismayilli** and **Shamakhi**, women outnumber men, accounting for 51-52% of the population of the respective villages.

In **Hajigabul**, females outnumber males in all villages covered by the Azure Project. For example, in Navahi settlement there is a comparatively high prevalence of women (55%) and in Pirsaat village a very low prevalence (50.7%). In the villages of Rancbar, Qizilburun and Atbulag, the prevalence of female population varies between 51% and 53%.

In the town of **Mingachevir**, the gender ratio of the population is 52.2% to 47.8%, with some predominance of women.

Vulnerability, Social receptors and health care

Aghsu

During the consultations with the municipalities and the representatives of the Executive Agency in each village, the participants came up with different criteria of vulnerability in their villages. During the discussions, some referred to the criteria approved by national legislation, others to their perception of vulnerability in their respective villages.

For example, in the villages of Lengebiz and Bicho in Agsu Region, single women over the age of 55 with low incomes and occasional employment are considered vulnerable, representing approximately 0.5% and 0.9% of the population of these two villages respectively.

In Gagali village, in addition to single elderly women, disabled people, orphans and university students from low-income families are considered vulnerable by the village population. There, 9.15% of the population falls into this category.

In the other villages, Dashdamirbayli (1.3%), Gharagoyunli (0.5%), Ulguch (1.2%) and Gashad (2.1%), the families of martyrs and veterans of the first and second Garabagh wars are considered vulnerable.

All the villages crossed by the Azure Project have at least one incomplete secondary school and one medical point staffed by at least one nurse. The presence of complete secondary schools and other social receptors (clubs, libraries, etc.) varies according to the number of village population.

In the most densely populated village of Gadali, there are one complete and one incomplete secondary school, one library and one cultural centre in operation, while only one medical point with one nurse provides medical services to the population of the village. The second most populous village, Gharagoyunlu, has a complete secondary school, a kindergarten, a library and a cultural centre. A medical point with a doctor provides medical services to the population. The sparsely populated village of Ulguch has a complete secondary school operating in the village. No medical services are provided in the village, people go to the neighbouring village at a distance of 1 km. Except for Dashdamirbeyli and Gashad villages, almost all villages have mosques in the village area; except for Gadali village, there are graveyards in the area of other villages.

Table 7-5: WB funded project Area; Aghsu - Gender distribution, Vulnerability, Social receptors and health care data

No	**Vilage**	**Population**		**Vulnerability**		**Social reseptors, such as schools and k/g**	**Health Care**	**Comments**
		Male	**Female**	**Criteria**	**%**			
1	Lengebiz	1,480		Single women 5-7	0.5	1 complete secondary school, 1 library, 2 shops	1 medical point served by a doctor	1 mosque, 1 graveyard
		750 (50.68%)	730 (49.3 %)					
2	Bicho	2,151		20 single women until the age of 55. Occasionally employed	0.9	1 complete and 1 incomplete secondary school, 1 library, 1 house of culture, 3 small shops	1 medical point served by a doctor and 4 nurseы. Post officeб ATS	1 mosque, 2 graveyards
		1150 (53.5 %)	1001 (46.5 %)					
3	Gadali	4,523		1 group of disabled people. Those who lost parents, get an education, single women	9.15	1 complete and 1 incomplete secondary school, 1 library, 1 house of culture, 9 commercial centers, 2	1 medical point served by a nurse	1 mosque
		2247 (49.7 %)	2276 (50.3 %)					

						teahouses, 2 barber shops		
4	Dashda mirbayli	1,160		1 martyr family, disabled people, 11 people who took participation in a war	1.3	1 complete secondary school, 1 library, 2 shops	Do not exist	1 graveyard
		592 ((51 %)	568 (49%)					
5	Gharago yunlu	3,938		21 martyr family	0.5	1 complete secondary school, 1 kindergarten, 1 library, 1 House of culture, 1 shop	1 medical point served by a doctor	1 mosque, 1 graveyard
		1932 (49.1 %)	2006 (50.9 %)					
6	Ulguch	623		2 martyr family, 2 veteran family	1.2	1 complete secondary school, 3 shops	Do not exist	1 mosque, 1 graveyard
		320 (51.4 %)	303 (48.6 %)					
7	Gashad	1,239		27 martyr families and veterans	2.1	1 complete secondary school, 1 library, 2 shops	1 medical point served by a nurse	1 graveyard
		576 (46.5 %)	663 (53.5 %)					

Goychay

In Goychay, 6% of the Garabaghal village population are considered vulnerable due to their low social status and disability. In the other villages of Mirzahuseynli, Arabchabirli 1, Arabchabirly 2 and Gharameryem, families of martyrs and veterans of the first and second Garabagh wars are considered vulnerable. In addition, including the number of families (30-40) living in poverty, 10% of Mirzahuseyinli village is considered vulnerable. In Arabchabirli 1 village, including 250 people living in poverty, 7.3% of the population is vulnerable. In Arabchabirli 2 village, 11% of the population who are families of martyrs and veterans are highly vulnerable. In Gharamaryam, in addition to families of martyrs and veterans, the elderly and people with disabilities are considered vulnerable.

The most populated village of Garabaghal Region has a complete secondary school, a kindergarten, a house of culture and a number of other socio-economic points, including a post office. A medical point served by a doctor operates in the village. In the village of Arabchabili 1, despite being the second most populated village (3,384), there are no social reseptors and health care services provided within the village area. The villagers travel to the town of Goychay, 1 km from the village, for medical and educational services.

In the sparsely populated village of the Region crossed by the Azure Project - Mirzahuseyinli, 1 incomplete secondary school and 1 kindergarten operate, a medical point staffed by a nurse provides medical services to the population. There is an old cemetery in Gabaghal village and an old mosque called "Fatmai Zehra" in Garamaryam village.

Table 7-6: WB funded project Area; Goychay - Gender distribution, Vulnerability, Social receptors and health care data

No	**Vilage**	**Population**		**Vulnerability**		**Social resseptors, such as schools and k/g**	**Health Care**	**Comments**
		Male	**Female**	**Criteria**	**%**			
1	Garabagghal	4700		200 - 280 people with low social status, people with disabilities	6	1 complete secondary school, 1 kindergarten, 1 cultural center, 1 library, car market, goods market, 2 restaurants,12 canteens, 8 shops	1 medical point served by a doctor, Post office	1 mosque, 1 graveyard ancient
		2350 (50%)	2350 (50%)					
2	Mirzahuseyinli	959		Martyr, veteran and those who live in poverty are 30 – 40 families. 100 people	10	1 incomplete secondary school, 1 kindergarten, 1 shop, ATS	1 medical point served by a nurse	1 mosque, 1 graveyard
		385 (40%)	574 (60%)					
3	Arabchabirli 1	3384		250 people who live in poverty, 5 martyr families 9 veterans	7.3	Going to the town school (1 km away)	Town hospital (1 km away)	1 graveyard
		1354 (40%)	2030 (60%)					
4	Arabchabirli 2	1340		150 people – 11 martyr families, veteran families	11	1 incomplete secondary school, 1 library, wedding palace, 3 small shops	1 medical point served by 2 nurses. Post office	1 graveyard, 1 mosque
		536 (40%)	804 (60%)					
5		7300						

	Gharam eryem	4015 (55%)	3285 (45%)	5 martyr and veteran families, elders and people with disabilities		1 general secondary school, 1 kindergarten, 1 club, 2 libraries, 1 ATS, 1 communication department	1 medical point, a maternity home and 2 pharmacy	At the settlement there is mosque called “Fatmeyi Zahra”

Agdash

Families of martyrs and veterans, people with disabilities are the main criteria of vulnerability in the villages. In the villages of Yukhari Agchayaz and Qoshaqovaq these people make up 4.5% and 16% respectively. In Arabochagi village, the criteria is extended by single elderly women, making the total vulnerable population up to 15.7%. In the village of Hushun, in addition to martyr families and people with disabilities, people with low incomes are also included, making a total of 4.7% of the population vulnerable.

Each village in the Agdash Region crossed by the Azure Project has a complete secondary school. In Yuxari Agchayaz and Qoshaqovaq villages, there is also a house of culture (in each village). Libraries in Yuxari Agchayaz and Hushun villages and a kindergarten in Arabochagi village are also among the social reseptors of the villages. Health services are provided in each village mainly in the medical points by at least one nurse. In Yuxari Agchayaz village there are two health centres and 3 nurses. In Hushun village there is one family health centre with two nurses. Each village has a cemetery, and Hushun and Arabochagi villages each have a mosque. There is a holy place called "Arab" in the area of Arabochagi village.

Table 7-7: WB funded project Area; Aghdash - Gender distribution, Vulnerability, Social receptors and health care data

No	**Vilage**	**Population**		**Vulnerability**		**Social resseptors, such as schools and k/g**	**Health Care**	**Comments**
		Male	**Female**	**Criteria**	**%**			
1	Yuxari Agchayaz	1334		50-60 people – martyr families, with disabilities	4.5	1 complete secondary school, 1 cultural house, 2 libraries, 4 shops	2 medical points served by 3 nurses	1 graveyard
		533 (40%)	801 (60%)					
2	Qoshaqovaq	1305		209 people with disabilities,	16	1 complete secondary	1 medical	1 graveyard

		652 (49.9 %)	653 (51.1 %)	veterans and martyr families		school, 1 cultural house, 1 library, 3 shops	point served by a nurse	
3	Araboch agi	950		50 displaced. women who are alone, veterans, martyr families are 150	15.7	1 complete secondary school, 1 kindergarte n, 2 shops	1 medical point served by 2 nurses. Shop	1 mosque, 1 village graveyard, arab holy place
		400 (42.1 %)	550 (57.8)					
4	Hushun	1230		Martyr families, people with disabilities, people with low income	4.7	1 complete secondary school, 1 library, 2 markets, 1 tea house, 1 café	Family health cente served by 2 nurses	1 mosque, 1 graveyard
		595 (48.5 %)	633 (51.5 %)					

Yevlakh

Similarly to the villages of the Regions mentioned above, in the Yevlakh villages traversed by the Azure Project, the most cited criterion for vulnerability is belonging to martyr and veteran families/veterans. Thus, in the villages of Arash, Gulovsha, Havarli, Hurushaghi and Yukhari buchaq the vulnerable population is defined only by this criterion and constitute 4.7%, 1.9%, 1.8%, 2.5% and 3% of the people in the villages respectively. In the villages of Aksham, Hachiselli and Tanrigulular, people with low income are considered as a second criterion of vulnerability and together with the families of martyrs and veterans constitute 2.4%, 4.3% and 6% of the population in their respective villages. Additional criteria of disability and orphanhood constitute the vulnerability of Salahli village (3%), while in Boshchali village the only criterion of vulnerability is low social status, people living in poor conditions and with low income, which constitute 4% of the village population.

Except for the villages of Yuxari buchag and Boshchali, all villages in the Yevlakh Region crossed by the Azure Project have a complete secondary school. The villagers of Boshchali go to the school in the neighbouring village of Gul. The village of Yuxari buchag has only an incomplete secondary school. In the most populous village of Yevlakh Region, Arash, there is also a cultural house, a folk house, a post office and other small shops. In the villages of Axsham, Havarli and Tanrigululular, in addition to the social receptors mentioned above, there are also functioning libraries. In Arash village, there is a primary school, an incomplete and a complete school, two libraries, a community centre and a club. There are ATS (Automatic Telephone Stations) operating in Gulovsha, Hacisell, Salahlo, Hurushagi and Tanrigululular villages. Most of the villages do not have medical centres for health services and people go to nearby villages or towns. For example, the residents of Arash, Akhsham and Haciselli villages go to Khaldan settlement, which is 3-13 km away from the villages. Residents of Salahli village go to Balchili village (1 km away) and some go to Aran Family Health Centre, which is 6 km away from the village. Residents of Boshchali, Huruushahgi and Tanrigululular villages go to Aran Region and Mingachevir town medical services at a distance of 6-17 km from the villages. One medical point operate in each village of Haciselli and Yuxari buchag, employed by 4 and 2 nurses respectively. Each village has

cemeteries in the territory; in the territory of Yuxari buchag village there is also an old German and Russian cemetery. Except Salahli, Tanrigulululular and Boshchali villages, all other villages also have mosques in the area

Table 7-8: WB funded project Area; Yevlakh - Gender distribution, Vulnerability, Social receptors and health care data

No	**Vilage**	**Population**		**Vulnerability**		**Social resseptors, such as schools and k/g**	**Health Care**	**Comments**
		Male	**Female**	**Criteria**	**%**			
1	Arash	2515		Martyr families, veterans are 120 people	4.7	1 complete and 1 incomplete secondary school, 1 elementary school (70-360 people), 2 libraries, 1 folk house, 1 club, 2 small shops	No hospital. Going to Xaldan for 3 km	2 graveyards, mosque, 1 graveyard
		1337 (53%)	1178 (47%)					
2	Gulovsh	1264		2 martyr families, 3 veterans, 30 with low income	2.4	1 complete secondary school, 1 library, 2 shops	Xaldan family health care centayer, 7 km aw	1 graveyard, 1 mosque
		687 (54.4 %)	577 (45.6 %)					
3	Gulovsh a	1766		Martyr families, veterans are 35	1,9	1 complete secondary school, 3 markets, 1 post office, 1 ATS	Xaldan family health care 4 km	1 graveyard, 1 mosque
		916 (51.9 %)	850 (48.1 %)					
4	Havarli	2900		12 martyr families, 5 veterans, 50 people	1.8	1 complete secondary school, 6 shops, 1 library, 1 club	1 medical point served by 4 nurses	1 old mosques, 2 graveyards
		1750 (60%)	1150 (40%)					
5	Haciselli	1054		1 martyr family, 15 families with low income – 40-45 people	4.3	1 complete secondary school, 1 post office, ATS, 1 shop	Xaldan family health care 13 km	1 mosque, 1 graveyard, 1
		454 (43%)	600 (57%)					

6	Salahli	3200	12 martyr families, 3 veterans, people with low social income, disabilities, lost parents. Total 66 people	2	1 complete secondary school, 1 cultural house, folk house, 6 small shops, 6 merchandizers, 1 post office, ATS	Balchili village 1 km away, Aran family health care 6 km at Aran Region	2 graveyards
		1632 (51%) 1568 (49%)					
7	Huruushagi	851	21 veterans	2.5	1 complete secondary school, ATS, 2 small shops	Aran Region – 11 km. Mingachevir 7 km	1 graveyard – ancient historical stones
		420 (49.4 %) 431 (50.6 %)					
8	Tanrigul ulular	2985	Martyr families, veterans, families with low income are 70 – 180 people	6	1 complete secondary school, ATS, 7 markets, 2 libraries, 1 cultural house	Mingachevir – 15, Aran 17	1 graveyard
		1501 (50.3 %) 1484 (49.7 %)					
9	Boshchali	245	10 people with low social status	4	Gul village school	Mingachevir – 6 km, Aran 12 km	
		111 (45.3 %) 134 (54.7 %)					
10	Yuxari buchag	914	2 martyr families, 1 veteran family – 20 people	3	1 incomplete secondary school, 3 shops	1 medical point served by 2 nurses	3 mosques, 1 old German graveyard, 1 russian and 3 muslim (active) graveyards
		460 (50, 3%) 454 (49,7 %)					

Mingachevir

In the town of Mingachevir, the unemployed, disabled, single-parent families and people receiving targeted state social benefits are considered the most vulnerable category of citizens. They make up 9.5% of the population.

There are 20 complete secondary schools, 22 kindergartens, Mingachevir State University, two colleges, one vocational school, one music art school, one music school, 13 libraries, seven clubs, three museums and many other private enterprises, shops and hotels. Health care is provided by three hospitals, four polyclinics, two family health centres and two dental clinics in the town of Mingachevir. There are two mosques, five cemeteries, including one Russian and one German cemetery on the territory of Mingachevir town.

Table 7-9: WB funded project Area; Mingachevir - Gender distribution, Vulnerability, Social receptors and health care data

No	Vilage	Population		Vulnerability		Social resseptors, such as schools and k/g	Health Care	Comments
		Male	Female	Criteria	%			
1	Mingachevir	122.261 (16.2% IDP)		3,996 – unemployed, 3,937 - disable, 2,127 - single parent families, 1,563 - people, receiving targeted state social allowances	9,5%	20 complete secondary school, 22 kindergartens, 1 University, 1 medical college, 1 tourism college, 1 vocational school, 1 musical art school, 1 musical school, 13 libraries, 7 clubs, 3 museums, 13 parks, 2687 markets, 9 hotels, 125 kiosks	3 hospitals, 4 policnilics, 2 family health care centers. 2 big dental clinics	2 mosques, 5 graveyards (1 russian, 1 german
		58.444 (47.8 %)	63.785 (52.2 %)					

Ismayilli

The only village in **Ismayilli** Region through which the Azure Project passes - Qubakhalilli - defines disabled people as vulnerable. Only 1% of the village population meets this criteria. The village has a complete secondary school, a club, small shops and ATS. For health care, villagers go to the nearby village health centre. The village has a mosque and a cemetery.

Table 7-10: WB funded project Area; Ismayilli - Gender distribution, Vulnerability, Social receptors and health care data

No	Vilage	Population	Vulnerability	Social resseptors, such as	Health Care	Comments

		Male	**Female**	**Criteria**	**%**	**schools and k/g**		
1	Qubakhalilli	2322		people with disabilities, people in need – 24 people	1	1 complete secondary school, 1 club, 4 markets, ASM		1 mosque, 1 graveyard
		1138 (49%)	1184 (51%)					

Shamakhi

Similarly to Qubakhalilli village in Ismayilli Region, only disabled people in Ovchulu village in Shamakhi Region are considered vulnerable and they make up 1.5% of the village population. In the case of Cholgoylar village, people with low social status (living in poor conditions, ill and with low income) are considered vulnerable and make up 6% of the village population.

Both villages in Shamakhi Region have complete secondary schools and small shops. There is also a library in Chol Goyler village. Residents of both villages travel to Goychay or Aghsu towns for medical services. There are no mosques in the villages. There is a cemetery in each of the villages; in Chol Goyler there is also an ancient sacred site on the grounds of the village cemetery.

Table 7-11: WB funded project Area; Shamakhi - Gender distribution, Vulnerability, Social receptors and health care data

No	**Village**	**Population**		**Vulnerability**		**Social resseptors, such as schools and k/g**	**Health Care**	**Comments**
		Male	**Female**	**Criteria**	**%**			
1	Chol Goylar	246		with low social status – 15 people	6	1 complete secondary school, 1 market	No medical point. Going to Shamakhi or Aghsu when needed	1 graveyard
		120 (49%)	125 (51%)					
2	Ovculu	1614		disabilities – 24 people	1.5	1 complete secondary school, 1 library, 3 markets	No medical point. Going to Shamakhi or Aghsu when needed	1 graveyard. Within the cemetery there is an ancient sacred place
		774 (48%)	839 (52%)					

Haciqabul

In Hajigabul Region, the percentage of vulnerable people in the villages varies between 0.6% and 10%, considering the families of martyrs and veterans and the level of poverty as the most actual criteria of vulnerability. For example, in Navahi, Pirsaat and Atbulag villages, people with these criteria make up 5%, 6% and 0.6% respectively of the population of these villages. In Rancbar village, martyr and veteran families and people with low income make up 10% of the population, while in Qizilburun village only 1 martyr family is considered vulnerable.

There is a complete secondary school in each village passed through by the Azure Project in Hajigabul. There are cultural houses and clubs in Navahi and Rancbar, and a kindergarten in Qizilburun village. Libraries operate in Pirsaat and Atbulaq villages. Small shops operate in almost every village. Medical points are also operating in each village and are served by one or more nurses. There are mosques in every village; except Pirsaat village, there are graveyards in other villages. There is one holy place in the village of Atbulag

Table 7-12: WB funded project Area; Hajigabul - Gender distribution, Vulnerability, Social receptors and health care data

No	**Vilage**	**Population**		**Vulnerability**		**Social resseptors, such as schools and k/g**	**Health Care**	**Comments**
		Male	**Female**	**Criteria**	**%**			
1	Navahi	2300		5 % poor – 115 people	5	1 complete secondary school, 1 cultural house, including library, club, exhibition, 8 commercial properties	1 medical point	2 mosques, 2 graveyards
		1035 (45%)	1265 (55%)					
2	Rancbar	3800		martyr and veteran families, low income – 380 people	10	1 complete secondary school, 1 Cultural house, including library, club, exhibition, 8 commercial properties, 10 markets, 3 tea houses	1 medical point served by 2 nurses	1 mosque, 1 graveyard
		1862 (49%)	1938 (51%)					
3	Qizilburun	1902		1 martyr family		1 complete secondary school, 1 kindergarten, 4 markets, 2 canteens	1 medical point served by a nurse	1 mosque, 1 graveyard, a bridge (130 years)
		913 (48%)	989 (52%)					
4	Pirsaat	1195			6			1 mosque

		590 (49.3%)	605 (50.7%)	6 % martyr and poor families – 116 people		1 complete secondary school, 1 library, 3 markets	1 medical point	
5	Atbulaq	2464		0.6 % martyr and poor families – 15 people	0.6	1 complete secondary school, 1 library, 4 markets and 2 more are being constructed	1 medical point served by 1 nurse	1 mosque, 1 graveyard, sacred place (100 years old)
		1158 (47%)	1305 (53%)					

Economy by regions

Mingechevir is not only the city of energy but also a city of industry. The industrial quarries, iron and concrete factories are industrial objects. Most of these factories have remained from soviet times and hasn't been replaced. The last industrial object constructed during the years of independence is Mingechevir industrial park built in 2017. The park is specialized in weaving and textile.

Yevlakh is one of the important agricultural Regions of the country. The grain and cotton growing, as well as cattle breeding sectors have played an important role in the city economy. The farmers grow potato, vegetable, water-melon and fruits, as well. Yevlakh city is also rich with natural resources like clay mixture sand deposits, as well as clay, sand and gravel deposits needed for brick making. Baku-Gazakh highway, Yevlakh-Balakan, Baku-Tbilisi railway, Baku-Supsa gas and Baku-Tbilisi-Jeyhan oil pipeline extend through the territory of the Region. Yevlakh city also has a domestic airport.

The main agriculture fields of the **Aghdash** region are grain-growing, cotton-growing, vegetablegrowing and cattle-breeding. A number of sectors of national economy are developed in **Geychay**. The Region is mainly specialized in the grain-growing, fruit-growing, cattle and silkworm breeding. Though Geychay is the agricultural Region, the strong industrial potential exists in the city. Tinned-food, cognac factories, brick plant, milk plant, bread-baking plant, sewing plant are among the largest industrial enterprises in the republic and they currently operate in the Region. The economy of the **Aghsu** region is mainly based on agricultural production. Majority of the population, i.e. more than 70% is engaged in this sphere of the economy. Grain growing, cotton growing, fruit, melon and vegetable growing also animal breeding are highly developing in the region. 20-25,000 tons of grain produced in the region before the agrarian reforms that increased by 70,000 tons today. The development of other spheres is evaluated as 30-40%. General quantity of neat and small cattle increased by and exceeded 25%. Particular attention in recent years is paid to the development of winegrowing. **İsmayilli**, which is part of the economic Region of Mountain Shirvan mainly specializes in plantgrowing and animal. Cultivation is one of the traditional spheres of the Gobustan region. The region supplies its population with grain in the maximal degree; the annual production of the grain in the region is more than 1 ton for a person. Grain is mainly growing in non-irrigated condition. Annual production of grain in the region is 38-40,000 tons. This stimulates the development of animal breeding and poultry farming. Production of agricultural goods in extensive way due to the dry and non-fertile grounds comprises the ground of economy of the **Absheron** region. Agriculture developed in two directions: cultivation and animal breeding. Gardening and mainly olive growing comprise the main priorities of cultivation here. Olive gardens comprise of 1,489 hectares and of 2,132 hectares garden

area of the region. Average annual amount of olive processing is only 1,800 - 2,000 tons. Oil plantations mainly stretch near the settlements of Hovsan, Gala, Bilgah, Mashtaga and Zig. Nearly all cattle in the region are disposed by private section. Local half-crude and crude-woolen sheep species, especially those of gala specie prevail in sheep breeding. Camels are breeding in "Gobu" camel breeding State agricultural enterprise. The regions produces pig meatsç beef, milk and wool.

1) Sub-Project 4: Expansion works in existing substations

The proposed expansion works at Gobu, Absheron, Mingachevir and Azerbaijan substations will be implemented within the boundaries of the existing substations owned by Azerenerji JSC.

7.11 Community Health and Safety

Public health in project areas is affected mainly by drinking water supplies. The public health facilities, including sanitation, are generally in good shape. The water borne diseases are not prevalent in any of the 11 regions related to the project area.

National water supply and sanitation program funded by several donors, including WB assisted the government to improve water supply and sanitation network in rural areas and will continue to be implemented for major cities and large residential areas of the project areas. State Water Strategy of Azerbaijan Republic developed on the basis of principles of IWRM according to EU WFD for period till 2035 was adopted in early 2019. In these areas, people have access to basic school education. However, recreational facilities, e.g., clubs, theaters, cinema houses, gymnasium, etc are very limited in number.

In all regions of the project area there are regional branch of the Ministry of Health of Azerbaijan. The Sanitary Epidemiology Centers control life security in the regions. There are hospitals in all regions and large settlements used for treatment of people. Sanitary epidemiology centers test quality of drinking water, control cases that may lead to deceases and prepare relevant recommendation for taking of needed actions. In cases of spread of infection deceases they together with other health institutions in the region take adequate measures to combat them.

Solid waste management poses another challenge, with water quality compromised by the dumping of untreated municipal, industrial, medical and agricultural waste. Agricultural pollution is exacerbated by unregulated use of fertilisers and discharges of animal slurry from cattle and pig farms, especially when snow melts in the spring (UN-Water, 2007). Apart from new systems operating in Baku, most of the waste in the Project covered regions is collected in open dumps, where pollutants from waste buried in these areas mix with groundwater. Some landfills are located directly along rivers and floodplains, and require special attention.

7.10.1 Construction traffic

Currently, the major pollution is from motor vehicles; oil and gas industries; chemical, steel, and power plants; and small and medium-sized enterprises. The main air polluting sectors, traffic and industry, are concentrated in the largest cities. Garadagh, Absheron regions, and Sumgayit and Mingechevir towns belong to the group of cities that are the source of 96% of the air emissions. However, the overall area of the transmission lines is located outside these areas in mainly low to non-polluted rural areas.

Within the last decades, the country especially rural areas witnessed a dramatic increase in numbers of poorly maintained old vehicles using low-quality fuel. More than 90% of all vehicles are more than 5- years old, and the average age of vehicles is around 15 years.

Azerbaijan is experiencing significant infrastructure development, particularly in transportation, energy, and urban construction projects. Huge infrastructure building works being implemented in liberated territories which use the roads of Project covered regions for transport of construction materials and goods. This surge in construction activities has led to an increase in construction traffic, which has implications for road safety, congestion, and local communities. This section provides an overview of the current state of construction traffic in Azerbaijan and the measures being implemented to manage its impact.

Key Construction Projects

Railway Modernization: Projects such as the Baku-Aghali railway and upgrades to the domestic railway system are contributing to construction traffic.

Port Development: Expansion of the Port of Baku and other coastal infrastructure projects (Alat FEZ) increase heavy vehicle traffic in Garadagh region (Alat town).

Energy Sector:

Renewable Energy Projects: Wind and solar power projects, along with associated transport of long turbine blades, contribute to the overall construction traffic.

Azerenerji conducts the construction of new blocks for Azerbaijan TPP (1280 MW) in Mingachevir town which also contributes increase of construction traffic in Mingachevir town.

Regional Development: Initiatives to develop smaller cities and rural areas are also contributing to localized construction traffic.

Impact of Construction Traffic

Road Congestion: Increased construction traffic has led to congestion on major highways, urban roads, and access routes to construction sites, particularly during peak hours.

Road Safety: The presence of heavy vehicles and construction equipment on public roads has heightened safety concerns, necessitating stricter traffic management and safety protocols.

Community Disruption: Local communities, especially those near major construction sites, are experiencing disruptions due to noise, dust, and increased traffic volumes.

Construction works, heavy machinery and large transport vehicles and increased intensity and volume of the traffic will affect the normal road traffic regime in the Project area. It is expected that the principle means of transport proposed to service project construction will be by road due to the fairly

developed road network in the Project area, and the flexibility required in delivering machinery and materials to locations across the OHL corridors.

It is clear that construction traffic will increase traffic flows on some roads, particularly the local road network and on unclassified roads, where traffic levels are typically low. In order to minimise impacts on residential areas from traffic during the construction works, a set of mitigation measures needs to be proposed and detailed Traffic Management Plan to be developed as a part of the Project's CESMP, which will (i) define the characteristics of the construction fleet of vehicles and site machinery, (ii) describe the expected Project's traffic (frequency of trips, working hours, convoys) and (iii) detail all site-specific measures that would be implemented during the construction period to minimise the nuisances to neighbourhoods generated by its fleet and to reduce the risk of accidents.

7.10.2 Public Exposure to Electro-Magnetic (EM) Radiation

No energy facility in Azerbaijan is operating with radioactive and ionizing radiation. The Project is designed to avoid the residential and other properties in the region thus minimising any concern about increasing exposure to EMF.

The perception of Electromagnetic (EM) radiation in Azerbaijan varies among the population, influenced by factors such as public awareness, access to scientific information, and cultural beliefs. With the expansion of high voltage transmission lines and telecommunications infrastructure, there has been growing public concern regarding potential health risks associated with EM radiation. This section explores the existing perceptions and the factors shaping them.

Public Awareness and Knowledge

Limited Understanding: For many in Azerbaijan, there is limited understanding of what EM radiation is and how it affects health. The general public often conflates different types of radiation, leading to misconceptions and undue fears.

Health Concerns: There is a prevalent concern about the potential health risks of EM radiation, particularly regarding its effects on cancer rates, neurological conditions, and other chronic illnesses. These concerns are often fueled by media reports and anecdotal evidence rather than scientific studies.

Educational Gaps: There is a significant gap in education and public outreach efforts to explain EM radiation in simple, accessible terms. This gap contributes to a lack of trust in official statements and scientific explanations.

Media Influence

- **Sensationalism**: Media coverage in Azerbaijan can sometimes be sensationalist, highlighting potential risks of EM radiation without providing balanced, scientifically-grounded information. This can amplify public fears and lead to misinformation.
- **Misinformation**: Social media and online platforms often disseminate unverified information and conspiracy theories about EM radiation, further complicating public perception and understanding.

Cultural and Social Factors

Cultural Beliefs: Traditional beliefs and cultural attitudes towards new technologies can influence how EM radiation is perceived. In some communities, there is a general suspicion towards technological advancements and their potential hidden dangers.

Trust in Authorities: The level of trust in government and scientific authorities plays a significant role in shaping public perception. In regions where there is skepticism towards official statements, public fear and resistance towards EM-related projects can be more pronounced.

Government and Institutional Responses

Regulatory Standards: The Azerbaijani government adheres to international standards and guidelines on EM radiation exposure, set by organizations such as the World Health Organization (WHO) and the International Commission on Non-Ionizing Radiation Protection (ICNIRP). However, public awareness of these regulations is low.

Public Engagement: Efforts to engage with the public and address their concerns have been inconsistent. More proactive and transparent communication from government and health authorities is needed to build trust and provide clarity on EM radiation issues.

Scientific Research: Ongoing local research and collaboration with international experts can help to better understand the specific impacts of EM radiation in Azerbaijan and provide evidence-based recommendations.

Mitigation Strategies

Educational Campaigns: Implementing comprehensive educational campaigns to inform the public about EM radiation, its sources, and the scientific consensus on health impacts can help alleviate undue fears. These campaigns should use multiple channels, including schools, community centers, and media.

Transparency and Communication: Increased transparency in the government's actions and decisions related to EM radiation, including making research findings and monitoring data publicly accessible, can help build public trust.

Community Involvement: Engaging local communities in the planning and implementation of EM-related projects, such as new transmission lines or telecommunications infrastructure, can address concerns and incorporate public input into decision-making processes.

Collaborating with Health Professionals: Partnering with healthcare providers to educate patients and the public about EM radiation can leverage the trust people have in their doctors and healthcare systems.

By addressing these factors, Azerenerji can improve public perception and understanding of EM radiation, ensuring that the expansion of essential infrastructure is met with informed consent and reduced public anxiety.

7.10.3 Labor and working conditions

The labor and working conditions in Project covered regions are shaped by various socio-economic, cultural, and regulatory factors. While there have been improvements in recent years, several challenges remain, including informal employment, inadequate labor rights protection, and limited access to resources and infrastructure. This section provides an overview of the current state of labor and working conditions in Project covered regions.

Employment Patterns

Agricultural Dominance: A significant portion of the rural workforce is engaged in agriculture, which remains the primary source of employment. This includes crop production, livestock farming, and horticulture.

Seasonal Employment: Many agricultural jobs are seasonal, leading to periods of unemployment or underemployment outside of peak farming seasons. This impacts income stability and financial security for rural workers.

Informal Sector: A large percentage of rural employment is in the informal sector, where workers often lack formal contracts, social security, and legal protections. This sector includes small-scale farming, local markets, and family-run businesses.

Working Conditions

Wages and Benefits: Wages in rural areas are generally lower than in urban centers, and many workers do not receive benefits such as healthcare, pensions, or paid leave. The cost of living in rural areas is also lower, which partially offsets lower wages, but it remains a challenge for financial well-being.

Work Hours: Agricultural work often requires long and irregular hours, especially during planting and harvest seasons. Workers may work from early morning until late evening, with limited rest periods.

Health and Safety: Occupational health and safety standards are often not strictly enforced in rural areas. Workers are exposed to various risks, including heavy machinery, pesticides, and physically demanding tasks. Access to healthcare facilities is limited, further exacerbating health risks.

Child Labor: Child labor remains an issue in some rural areas, where children are involved in agricultural activities to support family income. This affects their education and long-term prospects.

Legal and Regulatory Framework

Labor Laws: Azerbaijan has labor laws in place that regulate working conditions, wages, and workers' rights. However, enforcement in rural areas is often weak due to limited government presence and resources.

Worker Rights: Awareness of labor rights is generally low among rural workers. Trade unions and worker associations are not as prevalent or effective in rural regions compared to urban areas.

Government Initiatives: The Azerbaijani government has launched various programs to improve rural livelihoods, including agricultural subsidies, training programs, and rural development projects. These initiatives aim to enhance productivity and working conditions but have varying levels of success and reach.

Social and Economic Challenges

Poverty: Poverty rates are higher in rural areas compared to urban centers. Many rural households rely on subsistence farming and have limited access to markets, credit, and financial services.

Migration: There is a significant trend of rural-to-urban migration, particularly among young people seeking better employment opportunities. This migration can lead to labor shortages in rural areas and disrupt traditional agricultural practices.

Education and Skills: Access to quality education and vocational training is limited in rural areas, affecting the skill levels of the workforce. This limits opportunities for higher-paying jobs and economic advancement.

7.12 Cultural Heritage

There is one open archaeological museum area called Medieval Agsu City Archaeological Tourism Complex that is located in Ulguc village, near the proposed transmission lines from Navahi to Mingachevir. Primary archaeological excavations were implemented in the monument by Agsu-Ismayilli expedition in 1983. A large-scale archaeological excavation started there by an Agsu expedition of NASA Institute of Archaeology and Ethnography in 2012. The State Reserve was established by the Decree of the President of the Republic of Azerbaijan No. 1498 dated 22.10.2019. Total area of the reserve is 104.70 ha.

Alternative corridor was considered for 500 Kv and 330 Kv evacuation OHLs from Navahi SS heading to Mingachevir HPP and Azerbaijan TPP accordingly, to avoid encroachment with the protected site and the alignment was shifted to northward to maintain safe distance (200 m) from the cultural heritage site (please see below figure for details).

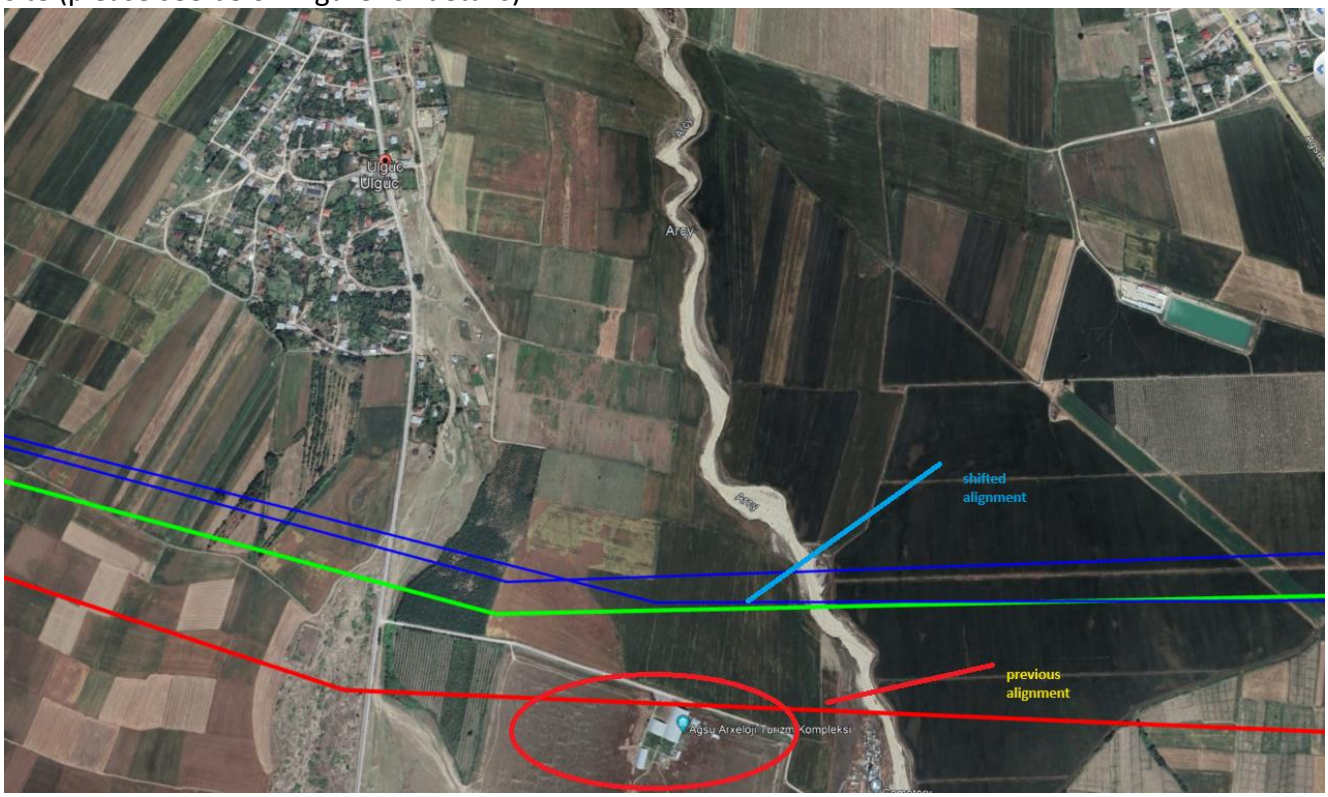


Figure 7-16. Shifted alignment to avoid the Mediaval Aghsu Town Archaelogical Tourism Complex

Figure 7-17. Mediaval Aghsu Town Archaelogical Tourism Complex

Another culturally important site located in vicinity of proposed OHLs is the Gobustan Rock Art Cultural Landscape that was included in the World Heritage List in 2007 and received UNESCO's status of enhanced protection during the eighth session of the Committee for the Protection of Cultural Property, held in Paris in December 2019. The Responsible Government Institution is the Cultural heritage Division of the Ministry of Culture and Tourism of the Republic of Azerbaijan. The reserve attracts hundreds of tourists from dozens of countries around the world each year.

As shown in Figure 7-16, part of the Qobustan National Park officially "Qobustan Rock Art Cultural Landscape "World Heritage (WH) Site, an open-air museum with a huge collection of priceless historical artifacts, which is located around 10 km in north-east direction from the OHLs. This is a hill and mountain site occupying the south-east end of the Greater Caucasus mountain ridge. The site has outstanding universal value for its rock art engravings, for the substantial evidence the collection of rock art images presents for hunting, fauna, flora and lifestyles in pre-historic times and for the cultural continuity between prehistoric and mediaeval times that the site reflects. As a result of archaeological research in the Qobustan Reserve, more than six thousand carvings on 1000 rocks, ancient dwellings-caves, about 40 mounds, more than 100 thousand objects of material culture were discovered. The most ancient carvings date back to the Mesolithic

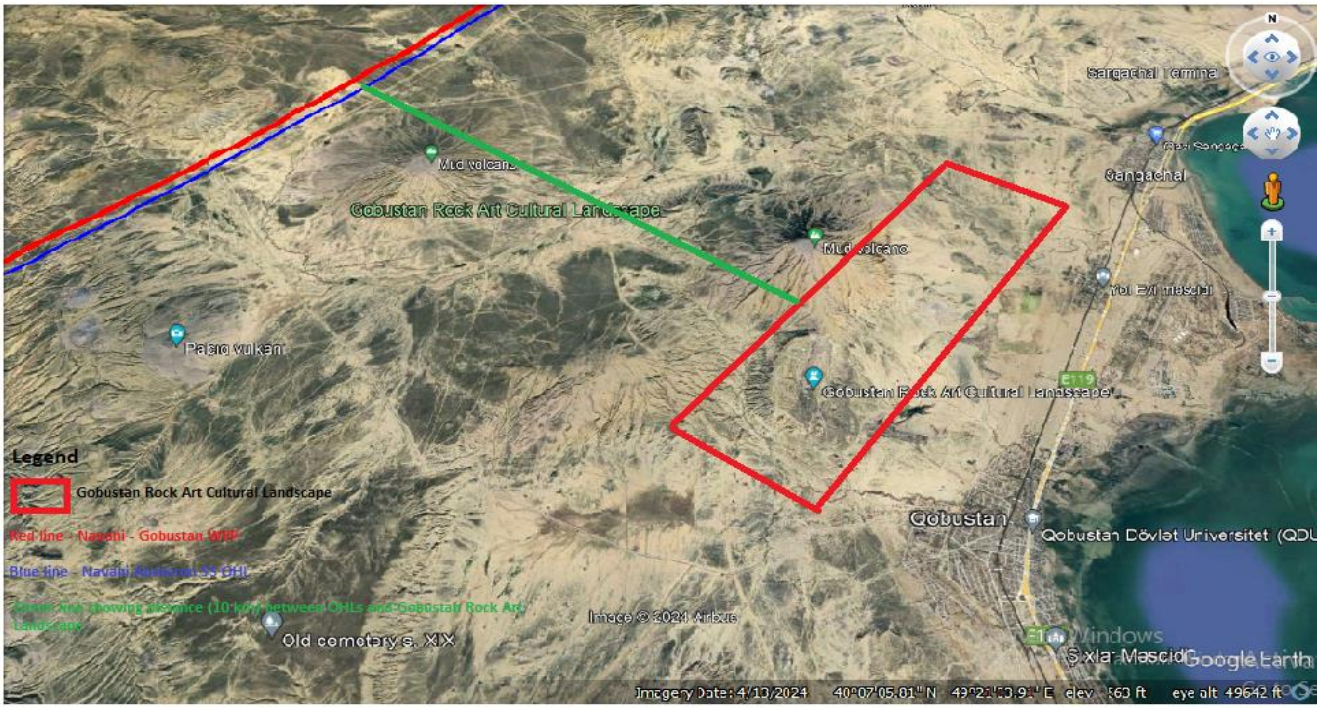


Figure 7-18: Location of OHLs and distance to Gobustan Rock Art Culture Landscape

One of the main tourist attractions in the area are world-famous mud volcanoes. The majority of these volcanoes are protected by the Ministry of Ecology Natural Resources. They have been declared natural resources under the order of the President of the country. It has unique value and is an attractive area for tourists. Out of the four volcanos detected in the vicinity of the OHLs, Goturdagh and Dashgil are considered as natural resources of touristic interest; these volcanoes are located 3 km South and around 2 km north-west to the OHLs (See Figure 7-17 below).

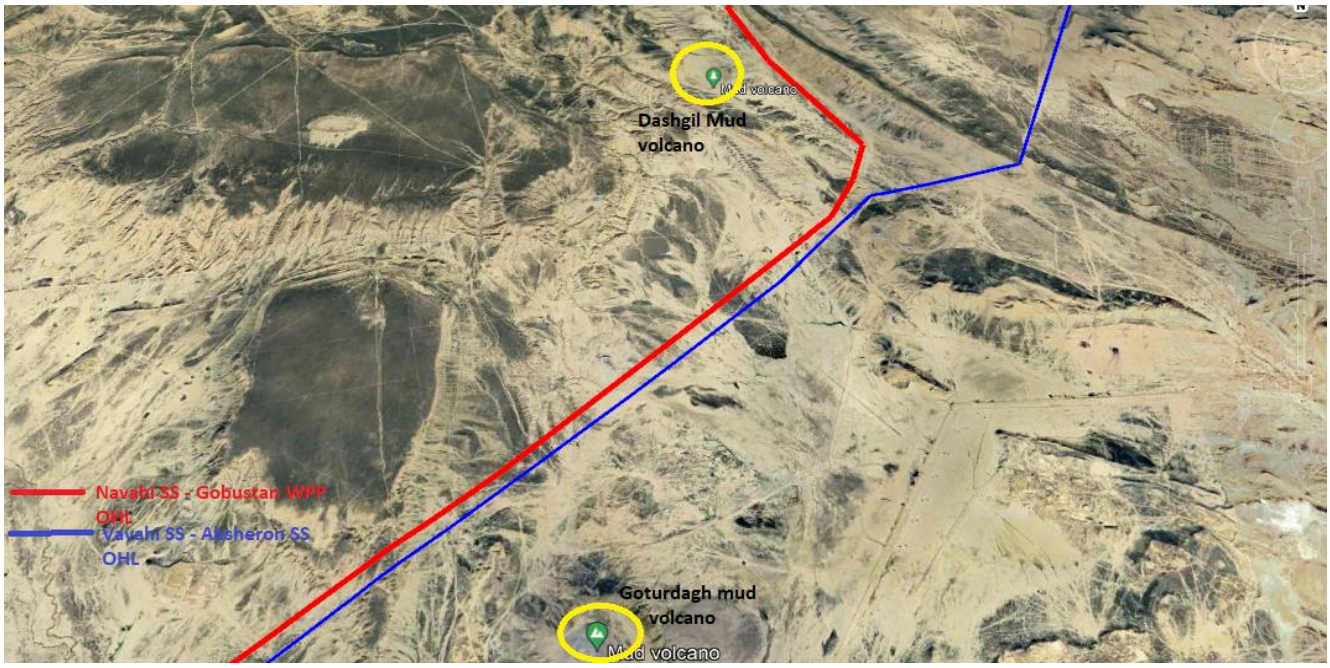


Figure 7-19: OHLs alignment and location of important mud volcanos (Goturdagh and Dashgil)

The map below indicates location (red placemarks) of important cultural heritage assets across the project OHLs. The Annex D also includes the name and locations (with coordinates) of important cultural assets that was provided by yhe State Service for Cultural Heritage Conservation, Development, and Rehabilitation under the Ministry of Culture of the Republic of Azerbaijan.

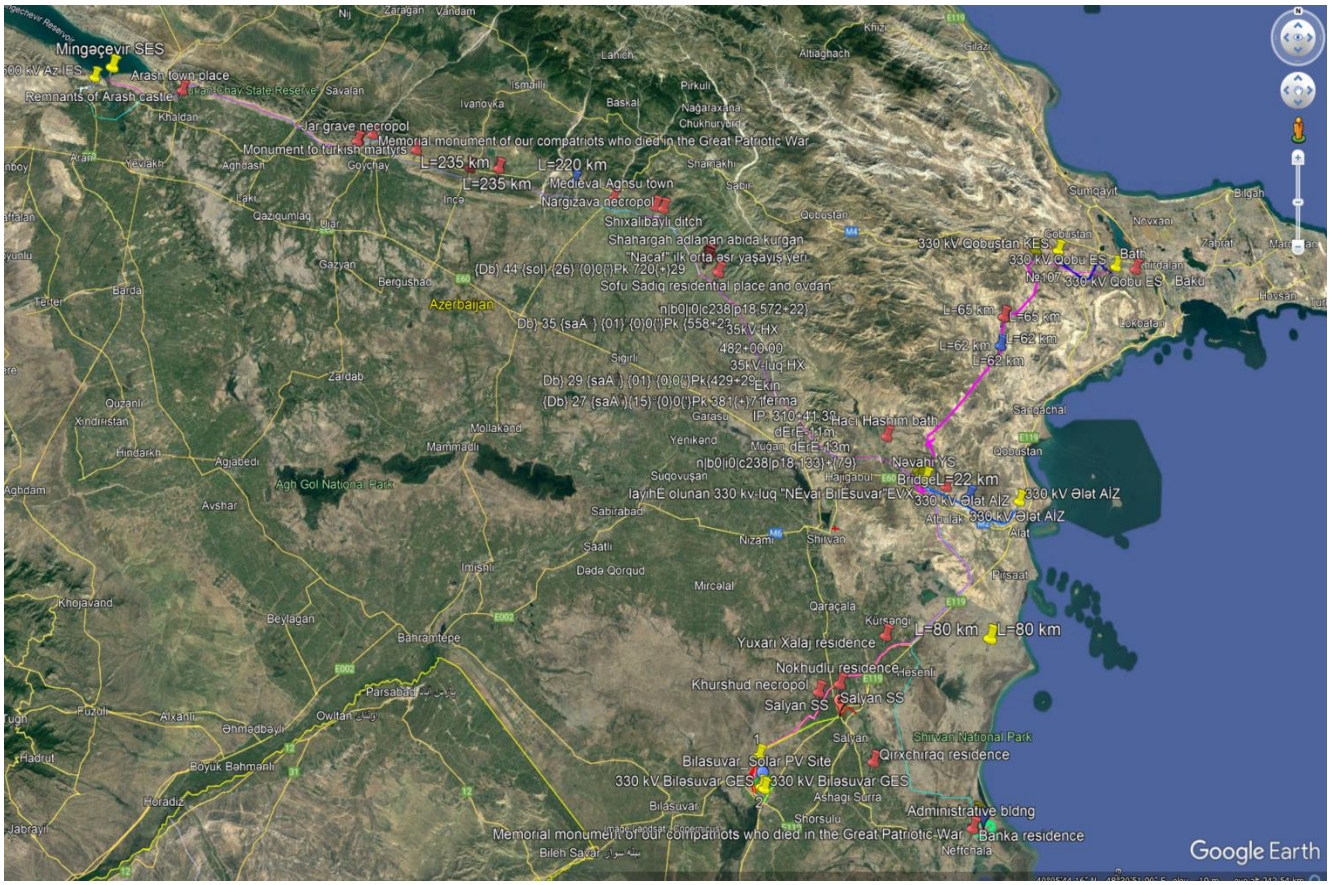


Figure 7-20: Placemarks of cultural assets across the OHLs

8. IDENTIFICATION OF POTENTIAL IMPACTS

The scoping report systematically identified and evaluated potential environmental and social impacts associated with the proposed project. This process involved a thorough analysis of both direct and indirect impacts during all phases of the project, including construction and operation. Key potential environmental impacts included changes to air and water quality, soil erosion, habitat disruption, and biodiversity loss. Social impacts were assessed in terms of effects on community health and safety, displacement, economic opportunities, and cultural heritage. Special attention was given to cumulative impacts that may result from interactions between the project and existing or planned developments in the area. The identification of potential impacts was informed by baseline data, stakeholder consultations, and expert assessments. This comprehensive approach ensured that all significant impacts are identified early, allowing for the development of effective mitigation and management strategies to minimize negative outcomes and enhance positive effects for both the environment and local communities.

8.1 Environmental and Social Resources and Receptors

The scoping process carefully identified and evaluated the environmental and social resources and receptors that may be affected by the proposed project. This includes the natural environment, such as air quality, water resources, soil, biodiversity, and ecosystems, as well as the social environment, encompassing local communities, cultural heritage sites, and socioeconomic conditions. Key environmental resources were assessed for potential impacts on flora and fauna, particularly protected species and sensitive habitats. Water quality and availability, both surface and groundwater, were evaluated to ensure sustainable use and protection from contamination.

During the scoping phase of the Project, mapping social receptors is a critical step to identify and understand the communities and stakeholders potentially impacted by the Project. Social receptors include local residents, businesses, schools, healthcare facilities, with particular attention to vulnerable groups such as children, the elderly, and women that may experience direct or indirect effects from the project activities. This process involves detailed demographic surveys, stakeholder consultations, and spatial analysis to delineate areas of social interaction and influence. By identifying the social receptors early in the project, we can ensure that their concerns and needs are integrated into the project planning and design. This approach fosters community engagement, promotes transparency, and helps in developing targeted mitigation strategies to minimize adverse social impacts, thereby enhancing the overall social acceptability and sustainability of the Project.

Cultural heritage sites have been mapped, where known, and measures developed to protect them from project-related activities. The example as set out above is for the Aghsu Medieval Open Archaeological Museum Complex. Mapping cultural heritage sites was essential to identify and protect significant cultural, historical, and archaeological assets potentially affected by the Project. Cultural heritage mapping involved a comprehensive survey and documentation of tangible and intangible cultural resources within the project area, consultation with relevant stakeholders. These resources include historical buildings, monuments, archaeological sites, sacred landscapes, and areas of cultural significance to local communities.

By thoroughly understanding the environmental and social context, the scoping report sets the foundation for developing effective mitigation strategies and ensures that the project's development is sustainable, equitable, and respectful of both natural and human environments.

8.2 Environmental, Social, Health and Cultural Heritage Impacts

The proposed Project is anticipated to bring several environmental, social, health, and cultural heritage impacts that require thorough assessment and management. Environmentally, the construction and operation of transmission lines can lead to habitat fragmentation, soil erosion, and disruption of local wildlife corridors. These impacts necessitate the implementation of robust mitigation measures, such as reforestation, erosion control techniques, and the creation of wildlife passageways.

Socially, the project could affect local communities through land acquisition, displacement, and changes in land use. Engagement with affected communities is essential to address their concerns, ensure fair compensation, and provide livelihood restoration programs. Additionally, the influx of workers and increased traffic can strain local infrastructure and services, requiring careful planning and support for community facilities.

Health impacts include potential exposure to electromagnetic fields (EMF), noise, and dust during construction and operation phases. While EMF exposure from transmission lines is generally within international safety guidelines, continuous monitoring and public communication are crucial to alleviate community concerns. Measures to control dust and noise, along with health and safety protocols for workers, will minimize adverse health effects.

Cultural heritage impacts are also significant, as transmission line routes may traverse areas of archaeological, historical, or cultural importance. Mapping and protecting these sites through careful route selection, buffer zones, and collaboration with cultural heritage experts and local communities will help preserve these valuable resources. Ensuring that cultural heritage impacts are managed respectfully and in accordance with local customs and legal requirements is essential for maintaining the cultural integrity of affected areas.

8.2.1. Parcels, households and PAPs affected by OHLs

The Project, particularly its OHLs (subprojects 2 and 3) will trigger land acquisition for the foundations of towers. The occupied land parcels will vary from 64 m^2 to 100 m^2 depending on the tower type (intermediate or anchor tower). The tables below indicate number of parcels, households and PAPs affected by OHLs.

Azerenerji prepared and disclosed a Resettlement Policy Framework (RPF) for AZURE Project, consistent with requirements of the World Bank Environmental and Social Framework (ESF). Its fundamental purpose is to establish terms of agreement between relevant authorities in the Republic of Azerbaijan and the World Bank regarding principles and procedures to be used in subsequent preparation of a Resettlement Action Plan (RAP) or Resettlement Action Plans (RAPs). World Bank approval of a RAP (or RAPs) is required before project authorities invite bids for any contracts in which works are expected to involve physical or economic displacement as a result of land acquisition or restrictions on access or use of natural resources.

The RPF is intended to avoid or minimize any adverse impacts associated with physical or economic displacement, and to ensure arrangements are in place to mitigate any adverse impacts that may occur. The Government of Azerbaijan hereby agrees to apply the principles, procedures, and standards incorporated in ESS5 of the World Bank ESF if obtaining any sites for project use would cause economic displacement4 or physical displacement.

The RPF is intended to utilize the existing legal and policy framework of the Republic of Azerbaijan, incorporating any supplementary measures necessary to achieve consistency with ESS5 principles and standards6.

Table 8-1. Number of parcels and households affected by the AZURE Project

No	OHL's name	Length	Number of affected parcels		Number of		
			Property	Rental*	Households	Household members	Tenants
1	330 kV single-circuit "Mingachevir HPP - Navahi SS"	220 km	278	114	277	976	28
2	500 kV single-circuit "Azerbaijan TPP - Navahi SS"	235 km	437	138	314	1241	9
3	330 kV single-circuit "Gobustan WPP - Navahi SS" OHL	60 km	12	9	9	45	3
4	330 kV single-circuit "Gobustan WPP - Gobu ES" OHL	20 km		5			2
5	330 kV single-circuit "Alat FEZ SS - Navahi SS" OHL	20 km	19	9	9	69	2
TOTAL			**746**	**275**	**609**	**2331**	**44**

Table 8-2: Number of parcels and households affected by the Project

No	OHL's name	Length	Number of affected parcels		Number of		
			Property	Rental*	Households	Household members	Tenants
1	330 kV double-circuit "Bilasuvar SPP - Navahi SS"	90 km	78	64	71	238	20
2	330 kV double-circuit "Banka SPP - Navahi SS"	90 km	34	2	35	127	4
3	500 kV single-circuit "Absheron SS - Navahi SS" OHL	65 km	14	12	10	64	3
TOTAL			**126**	**75**	**116**	**429**	**27**

**Note: rental means the land parcel is owned either by state or local municipality.*

Significance of Impacts – Generic Approach

The significance of an environmental and social effect is typically a function of the "value" or "sensitivity" of the receptor and the "magnitude" or "scale" of the impact.

Receptor Sensitivity of Value

The sensitivity of a receptor refers to its importance i.e. its environmental value / attributes. The sensitivity is generally site specific and is a function of receptor's capacity to accommodate change. It reflects its ability to recover if it is affected, and is defined by the following factors:

- Adaptability – the degree to which a receptor can avoid, adapt to or recover from an effect.
- Tolerance – the ability of a receptor to accommodate temporary or permanent change.
- Recoverability – the temporal scale over and extent to which a receptor will recover following an effect.

Generic criteria guidelines for assigning receptor sensitivity for the purpose of the assessment for the Project are given in Table below. In principle, the assessment of receptor's sensitivity is a matter of judgment applied by professional experts based on case by case approach within the relevant area affected by the proposed development.

Table 8-1: Generic criteria and typical descriptors for assigning receptor sensitivity / value

Receptor sensitivity / value	Description - typical descriptors
Very high	*Receptor has very limited or no capacity to accommodate changes (impacts) - very high importance and rarity, international scale and very limited potential for substitution/ replacement.*
High	*Receptor has a limited capacity to accommodate changes (impacts) - high importance and rarity, national scale and limited potential for substitution/replacement*
Medium	*Receptor has a limited capacity to accommodate changes (impacts) - high or medium importance and rarity, regional scale, limited potential for substitution/ replacement.*
Low	*Receptor has a moderate capacity to accommodate changes (impacts) - low or medium importance and rarity, local scale and potentially can be substituted / replaced.*
Very low	*Receptor is generally tolerant of and can accommodate changes or influences - very low importance and rarity, local scale and are not designated, and are easily substituted / replaced.*

Impact Magnitude or Scale

The magnitude of an effect is typically defined by number of factors including, but not limited to:

- Spatial extent – the area over which an effect occurs.
- Duration – the time for which the effect occurs.
- Likelihood – probability of occurrence.
- Reversibility – the ability to return to the original state.
- Intensity – the degree of change relative to existing environmental conditions.

A typical impact appraisal matrix for different elements of the environment is prepared to guide the impact assessment exercise for the Project and presented in Table below.

Table 8-2: Typical impact appraisal matrix

Impact magnitude factor	Description - typical descriptors	
Spatial Extent (Area of influence)	Limited (on SS location or along OHLs corridor)	Area on, and around the construction and operational location of the Project
	Local	In the range of municipality / neighbouring municipalities
	Regional	Azerbaijan and neighbouring countries
	Global	Continent and wider
Duration	Very short	Few minutes to few hours
	Short	Few hours to few weeks
	Average duration	Few weeks to few months
	Long	Few months to few years
	Very long	Decades / centuries
Probability of	No probability	Should not occur during normal operation and conditions
	Low probability	Possible, but unlikely

Impact magnitude factor	Description - typical descriptors	
occurrence (Likelihood)	Average probability	May happen sometimes
	High probability	Likely to occur during the life cycle of the project
	Reliable probability	Will certainly appear
Reversibility	Reversible (impact)	Reversible impact on the resource / receptor, i.e. impact upon which the environment will be able to return to the original state
	Irreversible (impact)	Irreversible impact on the resource / receptor, i.e. impact upon which the environment will not be able to return to its original state
Intensity	A (very low / negligible)	No change or negligible weak impact without damaging the resource / receptor
	B (low to medium)	Measurable impact, but with proper planning does not cause damage to the resource / receptor
	C (medium to high)	Significant impact, but can be controlled by implementing the appropriate measures
	D (very high)	Impact that would be harmful to the resource / receptor
	E (compensation)	Impact that requires compensatory measures

Typical criteria descriptors for defining impact magnitude for the purpose of the assessment are given in Table below. While this Table provides guidelines of a generic nature, it should be noted that specific guidelines in relation to impact magnitude may be required for the particular topics, where considered necessary.

Table 8-3: Generic criteria and typical descriptors for determining impact magnitude / scale

Impact magnitude	Description - typical descriptors
High	Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements (Adverse)
	Large scale or major improvement of resource; extensive restoration or enhancement, major improvement of attribute quality (Beneficial)
Medium	Loss of resource, but not affecting integrity, partial loss of/damage to key characteristics, features or elements (Adverse)
	Benefit to, or addition of, key characteristics, features or elements; improvement of attribute quality (Beneficial)
Low	Some measurable change in attributes, quality or vulnerability, minor loss of or alteration to one (possibly more) key characteristics, features or elements (Adverse)
	Minor benefit to, or addition of, one (possibly more) key characteristics, features or elements, some beneficial impact on attribute or a reduced risk of a negative impact occurring (Beneficial)
Very low	Very minor loss or detrimental alteration to one or more characteristics, features or elements (Adverse)
	Very minor benefit to or positive addition of one or more characteristics, features or elements (Beneficial)

Impact magnitude	Description - typical descriptors
None / no change	No loss or alteration of characteristics, features or elements, no observable impact in either direction

The assessment of effects on the environment arising from the Project will consider their significance during both construction and operational phases. Impacts are likely to be significant if they:

- Are extensive over space or time and are intensive in relation to assimilative capacity of the environment.
- Exceed environmental or health standards or thresholds.
- Do not comply with environmental and social policies / land use plans.
- Adversely affect ecological sensitive / important areas or natural heritage resources.
- Adversely affect community lifestyle, traditional land uses and values.

The significance (or the level) of a potential effect is a function of its predicted magnitude and the sensitivity / value of the resource / receptor being affected. The greater the receptor sensitivity and the greater the impact magnitude, the impact is more significant. The impact significance has to be set in a context and could be relativistic and to a certain degree - subjective.

In general, an impact could be categorized into following significance categories (Table below):

- Negligible (or neutral): no detectable change to the environment;
- Minor: a detectable but non-material change to the environment;
- Moderate: a material but non-fundamental change to the environment;
- Major: a fundamental change to the environment.

Table 8-4: Typical impact significance matrix

Receptor sensitivity	Impact magnitude				
	High	Medium	Low	Very low	None
Very high	Major	Major	Moderate	Moderate	Negligible
High	Major	Moderate	Moderate	Minor	Negligible
Medium	Moderate	Moderate	Minor	Minor	Negligible
Low	Minor	Minor	Minor	Negligible	Negligible
Very low	Minor	Negligible	Negligible	Negligible	Negligible

The Table above demonstrates how combining the sensitivity / value of the resource or receptor with the magnitude of change produces a significance of effect category.

For some topics, such as air or water quality, noise, elector-magnetic radiation - quantifiable (measurable) thresholds or legally defined criteria could be used to determine the significance of an impact. However, for other topics, such as biodiversity or landscape, it is necessary to use combination of quantitative and qualitative criteria – professional judgment on case by case basis.

Assigning impact significance relies on reasoned argument, professional judgment and consideration of the views and guidance of competent organisations. Assigning each impact to one of four significance categories enables different topic issues to be placed within the same scale to allow a

direct comparison. The four significance categories are described in Table below. In arriving at the significance of effect, the assessor will also consider whether they are direct or indirect; short, medium or long-term; permanent or temporary, positive or negative, cumulative.

Table 8-5: Typical impact significance categories and their decision-making aspects

Impact significance category	Typical criteria	Description - typical descriptors
Major	A fundamental change to the environment	Only adverse impacts are normally assigned this level of significance, and represents key factors in decision-making process. These impacts are generally but not exclusively associated with sites or features of International, National or Regional importance that are likely to suffer a most damaging impact and loss of integrity. However, a major change in a site or feature of local importance may also enter this category.
Moderate	A material but non-fundamental change to the environment	These beneficial or adverse impacts may be important, but are not likely to be key decision-making factors. The cumulative effects of such factors may influence decision-making if they lead to an increase in the overall adverse impact on a particular resource or receptor.
Minor	A detectable but non-material change to the Environment	These beneficial or adverse impacts may be raised as local factors. They are unlikely to be critical in the decision-making process, but are important in enhancing the subsequent design of the project.
Negligible (or neutral)	No detectable change to the environment	No impacts or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.

8.2.1 Air Quality

The impacts of the Project on air quality are such that their management by mitigation measures that will be set out in the ESMP and will include GIP, would prevent the occurrence of significant impacts. Therefore, the assessment of air quality is scoped out of the ESIA Report. This is elaborated further below. The key pollutants of concern that may give rise to significant air quality effects during the construction phase are:

- Fugitive dust from construction related activities (effecting human and ecological receptors), including: earthwork activities such as soil stripping, ground levelling, and excavation; construction activities, which includes any activity involved in the provision of a new structure or modification to an existing structure; and construction traffic transporting dust and dirt from any Project compound or site entrance onto the public road network, where it may be deposited and re-suspended by other vehicles using local roads;

- Vehicle exhaust emissions of oxides of nitrogen (NOx) (impacting human and ecological receptors) and fine particulate matter (PM) (impacting human receptors (impacts on lung functions)) from construction traffic, particularly heavy duty vehicles (HDV); and

- Vehicle exhaust emissions from non-road mobile machinery (impacting human and ecological receptors).

The identified risk of dust impacts for each construction activity would be used by the Contractor(s) to define the required dust control levels for each activity to ensure that no significant impact would occur as a result of construction activities which generate dust. Mitigation would be employed for all risks – low to high to ensure no significant impacts occur.

While the anticipated traffic numbers associated with the construction of the Project are not as yet fully known, the majority of the construction works would be undertaken in remote areas where existing road traffic levels are low and air quality is generally currently good. In addition, the construction of the overhead lines would be transitory with work in any one place being of short duration. In the absence of Azerbaijani or Lenders' guidance, UK guidance on the number of vehicles that trigger the need for an air quality assessment (UK Institute of Air Quality Management (IAQM) Guidance IAQM guidance document 'Land-Use Planning & Development Control: Planning for Air Quality) in a sensitive area, is greater than 100 annual average daily traffic movements. This threshold will not be exceeded. It is therefore considered that with the use of mitigation that impacts on both short and long term levels of fine particulate matter and oxides of nitrogen due to Project traffic are unlikely to result in exceedances of air quality limits and the assessment of traffic emissions on local air quality are therefore scoped out of further assessment.

During the operation phase it is not anticipated that there would be any significant emissions to air from the Project:

- Once constructed, operational traffic would consist of not more than monthly inspections in light vehicles. Therefore, it is proposed that operational impacts are scoped out and would not be considered as part of the EIA;
- The proposed substations may include Gas Insulated Switchgear (GIS), which use sulphur hexafluoride (SF6) gas as an electrical insulator. This is a greenhouse gas rather than a local air quality pollutant. Manufacturers now produce GIS switchgear that is guaranteed to have no or minimal leakage and there would be no resulting local air quality impacts. Therefore, it is proposed to scope this out of the air quality assessment; and
- Ozone, a colourless gas with a pungent odour, may also be produced by corona discharge (an electrical discharge brought on by the ionization of the air surrounding the conductor) in overhead lines, however the quantities produced are not at a level that could be harmful to human health. The construction activities comprising the Project are not of a nature nor would they employ methods or processes that could give rise to odour (odour is caused by a mixture of chemicals that interact and cause an odour).

Therefore, no significant sources of odour are expected during the construction, operation and decommissioning phase of the Project that could give rise to such impact. Therefore, it is proposed to scope out the assessment of odour from the ESIA.

8.2.2 Noise and Vibration

The principal construction noise and vibration sources predicted as a result of the construction of the Project include the following:

- Deliveries of staff, materials, construction plant and machinery;
- Site preparation and construction of compounds and access tracks;
- Foundations for towers (either by excavation or piling);
- Preparing substation foundations;
- Removal of existing overhead lines;
- Installation of substation equipment and towers;
- Welding and grinding; and
- Restoration works.

The majority of these activities would take place at locations remote from sensitive receptors. Night-time working is not generally proposed, except under special circumstances.

The impacts of construction noise from the Project would be controlled by the Contractor(s) to meet IFC EHS guidelines[11] (in the absence of Azerbaijani standards relevant to construction noise). The Contractor(s) will use GIP and mitigation measures to ensure compliance with the relevant guidelines and thereby prevent the occurrence of significant impacts. The assessment of construction noise is scoped out of the ESIA Report. A high level desk based appraisal of noise due to the operational phase will be undertaken for the substations and the high voltage overhead lines (330/500kV) which can both emit buzzing or humming noise. Noise levels will be considered with respect to IFC EHS guidelines[12] and Azerbaijan standards (Decree No. 796, 8 July 2008). As noise from the Project would be continuous it is the more stringent night time noise limits that would be relevant for residential receptors:

- IFC EHS guideline level 45dB(A)
- Azerbaijani permissible level (for living rooms and bedrooms) 30dB(A)

The IFC EHS guideline level is a level to be met externally to buildings. The Azerbaijani permissible level relates to an internal limit and when the noise attenuation of an open window (i.e. a 15dB reduction[13]) is considered, this also equates to an external night-time limit of 45dB(A).

In addition to a 45dB(A) night time noise limit, the IFC EHS guidelines also refer to a limit of a maximum increase in background levels of 3 dB at the nearest receptor location off-site. The noise levels resulting from the Project will therefore be considered with reference to these limits.

Lower voltage overhead lines (i.e. the 110kV lines of the Project) are considered to be 'practically quiet' in operation due to the relatively low electrical stresses on these lines. Under certain conditions there may be some low level noise from a 330kV line which may be noticeable only when standing close to the line. The level, occurrence and duration of this noise is such that it is not considered to be significant. Therefore, the assessment of operational noise from these lines is scoped out of the assessment.

[11] *https://www.ifc.org/content/dam/ifc/doc/2000/2007-general-ehs-guidelines-en.pdf*
[12] *https://www.ifc.org/content/dam/ifc/doc/2000/2007-general-ehs-guidelines-en.pdf*
[13] *World Health Organization (WHO), B Berglund, T Lindvall, D H Schwela, Guidelines for Community Noise, 1999 http://www.who.int/docstore/peh/noise/Comnoise-4.pdf*

8.2.3 Geology, Soil and Groundwater

Impacts on water quality (both surface water and groundwater) and also flood risk will principally be associated with the construction phase, and will be associated with ground disturbance, dewatering activities, creation of impermeable surfaces, and accidental release of pollutants or works near or within watercourses. These impacts are typically associated with infrastructure construction projects and thus measures to prevent environmental impacts arising from these are well developed and used. It is proposed that avoidance measures, good international practice and project-specific mitigation measures will be incorporated into the ESMP. These are considered suitably effective to provide mitigation for sensitive receptors so that there would be no significant impacts as a result of the Project. A detailed assessment of Project impacts on water quality and flood risk is therefore scoped out. Nevertheless, key hydrological features (such as river crossings) will be mapped and described in the ESIA Report so that likely constraints can be established to inform the necessary mitigation approaches.

Impacts on geology and soils due to the Project also relate principally to the construction phase and would potentially arise from ground instability and ground disturbance. The majority of the works would be undertaken on previously undeveloped land where mobilization of soil contamination is not an issue. The potential impacts are such that their management by avoidance measures, good international practice and project-specific mitigation measures which will be incorporated into the ESMP is considered likely to provide sufficient mitigation for sensitive receptors to ensure that there are no significant impacts as a result of the Project. The detailed assessment of impacts on geology and soils is, therefore, scoped out of the assessment.

Nevertheless, an evaluation of geological risks (slope stability, erosion) will be undertaken and will include the mapping of key features to enable the provision of sufficient baseline information to establish constraints and inform the necessary mitigation approaches.

8.2.4 Surface Water

Hydrographically, the Republic of Azerbaijan belongs to the Caspian Sea basin. The hydrographic network (rivers, lakes) of the republic was formed in a long geological period and underwent considerable changes during this period. The remains of a number of ancient river valleys found today are an example of this. Even now, the hydrographic network is changing as a result of natural factors and human economic activity. Artificial watercourses (canals) and reservoirs are also included in the hydrographic network of Azerbaijan.

Rivers form the basis of the hydrographic network of the Republic of Azerbaijan. 8359 rivers of different lengths flow through the territory of the republic. Of these, 8,188 rivers each have a length of less than 25 km. There are 24 rivers with a length of more than 100 km. Kura, Araz, Ganikh (Alazan), Gabirri (Iori), Samur, Tartar, Turyan, Agstafa, Hekari, Vilash, etc. are the largest rivers flowing through the territory of the republic. In general, the rivers of the Azerbaijan are divided into 3 groups:

- Rivers of the Kura basin (Kanikh, Gabirri, Turyan, Agstafa, Shamkir, Tartar, Khachin, etc.);
- Rivers of the Araz basin (Arpachay, Nakhchivan, Hakari, Kondelanchay, etc.);
- Rivers flowing directly into the Caspian Sea (Samur, Gudyal, Valvala, Vilash, Lankaran, etc.).

Kura (1515 km), Araz (792 km) and Samur (200 km) rivers are the three longest transboundary rivers of Azerbaijan, the Kura River is the largest waterway in Transcaucasia. Mingachevir Reservoir, the largest reservoir of Azerbaijan with 605 km2, was created as a result of the flow of the Kura River in the territory of Western Azerbaijan. There are 7 dams in Kur, 4 dams in Araz, and 1 dam in Samur river. Almost 1000 megawatts of water power are produced in the water reservoirs of the Kura River.

There are more than 250 lakes in Azerbaijan. Most of them are small, but Hajigabul, Sarısu, Candargol, Goygol and many others are relatively larger lakes. Azerbaijan has more than 60 reservoirs to control the river flow. Shamkir and Mingachevir reservoirs are the largest and most important reservoirs located in the areas where the project will be implemented.

The area of the Kur river basin (86,000 km2) is less than the area of the Araz basin (101,937 km2) until it meets the Araz. However, since the water content of Kur is twice that of Araz river, even after they meet, the river is called Kur.

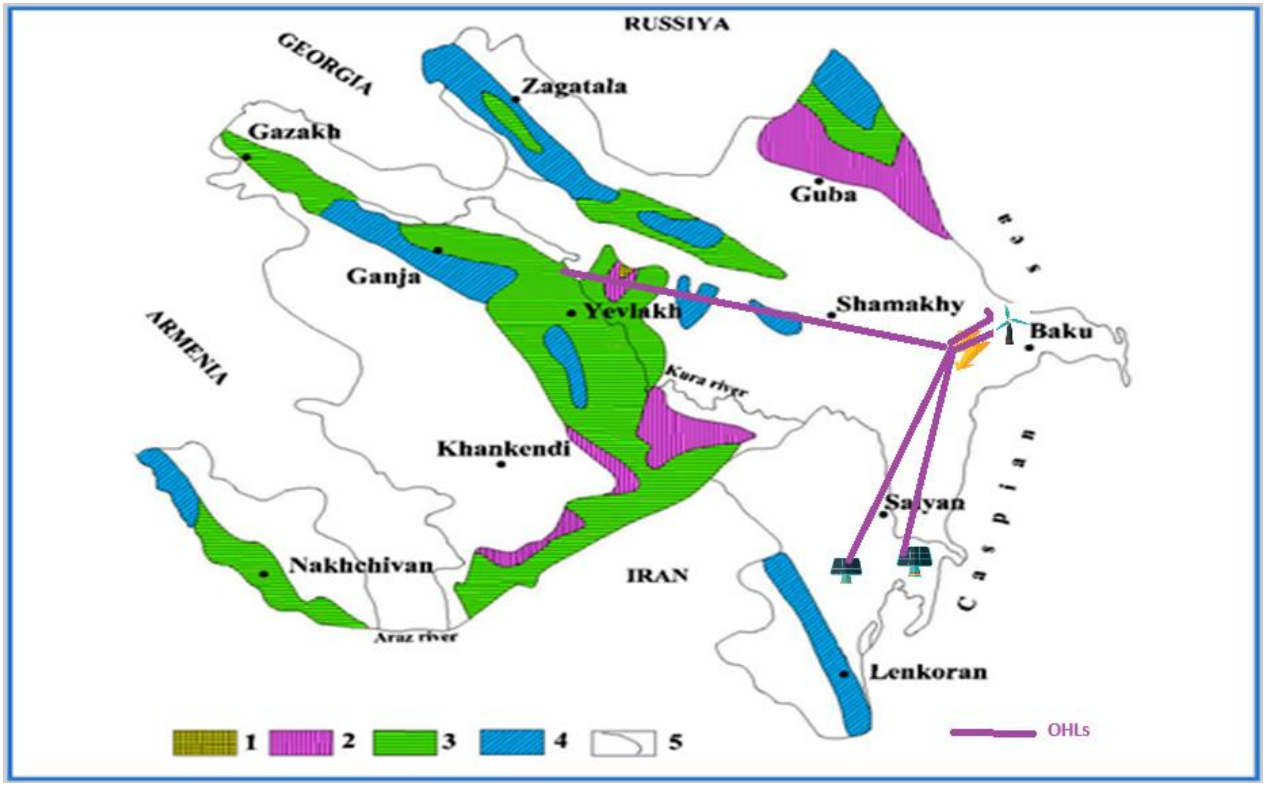
Aghstaphachay, Tovuzchay, Esrikchay, Zayam, Shamkirchay, Ganjachay and Kurekchay, flowing from the northeastern slope of the Lesser Caucasus, join the Kura and form its right branches. Mainly rain (70%) is partly fed by snow and groundwater.

Tartar, Khachin, Hakari, Okchu and Gargarchay rivers flowing from the southeastern slope of the Lesser Caucasus are used to irrigate the Mil and Karabakh plains. These rivers are mainly fed by underground water as they are formed in the Karabakh volcanic plateau consisting of erupted volcanic rocks. The widespread distribution of such rocks has led to a sparse river network in the area.

Surface water bodies (river and canal network, lakes) in the project area are given in Figure 8-3.

Figure 8-3: Map of surface water bodies in the project area

Groundwater: The main part of drinking and weakly mineralized groundwater in Azerbaijan is found in the plains of the Kur-Araz lowland and in the Samur-Gusarchay valley basin and is shown in Figure 15.



Legend: Unit rates of usable groundwater reserves, l/s.km2 ; 1 - up to 0.1; 2 – 0.1-1.0; 3 – 1.0-10; 4 – over 10; 5 – borders of areas with different groundwater reserve rates

Figure 8-4: Map showing underground water resources in the project area

Fresh and low mineralization in the mainly peripheral zones of debris cones of Karabakh, Mill and Shirvan plains varies with very saline or brackish waters based on the above characteristics. In the Karabakh and Mil plains, one open and two closed aquifers are surrounded by mineralized water and covered by a closed aquifer with fresh water.

In Azerbaijan, underground water is extracted from wells and kahrizes. Karabakh, Mil and Ganja-Kazakh plains have more underground water than all other hydrogeological regions of Azerbaijan. 8-10 percent of groundwater is used for household supply; 3-4% is used for industrial purposes, and 86-88% is used for irrigation. However, most of the population uses rivers and canals for household needs due to uneven distribution of water resources and lack of water extraction facilities.

Since the project areas are widely spread in different regions of the country, there are several large and small rivers passing through the regions where the project will be implemented. However, in most cases, rivers and other water bodies are far from the location of project components, and the project will not be able to adversely affect water bodies.

The alignment of proposed OHLs passes through the several rivers at several points. The nearest settlements along the crossing points located at a relative distance of approx. 700-800 metres from

the line. The table below shows the crossing points of the rivers and canals by Project OHLs and the nearest villages:

Table 8-6: River crossings of OHLs

No.	OHL	River crossed	Location	Coordinates
1	330 Kv double-circuit Bilasuvar-Navahi (90 km)	Kura	Salmanli village of Salyan region	39°40'50.47"N 48°57'31.21"E
2	330 Kv single-circuit Navahi ss – Mingachevir HPP (220 km)	Girdimanchay river	Padar village of Aghsu region	40°34'08.61"N 48°12'40.15"E
		Goychay river	Goychay town	40°40'17.91"N 47°45'36.38"E
		Turyanchay river	Yukhari Aghjayazi village of Goychay region	40°41'54.95"N 47°32'56.74"E
		Yukhari Shirvan canal	Arash village of Yevlakh region	40°45'44.03"N 47°13'34.60"E
		Kura river	Hajiselli villageof Yevlakh region	40°42'34.96"N 47° 3'50.42"E
3	500 Kv single-circuit Navahi ss – Azerbaijan TPP (235 km)	Girdimanchay river	Padar village of Aghsu region	40°34'08.61"N 48°12'40.15"E
		Goychay river	Goychay town	40°40'17.91"N 47°45'36.38"E
		Turyanchay river	Yukhari Aghjayazi village of Goychay region	40°41'54.95"N 47°32'56.74"E
		Yukhari Shirvan canal	Arash village of Yevlakh region	40°45'44.03"N 47°13'34.60"E

All rivers of the region are related to mudflow regime. In spring during the intensive snow melting and high rains often occurs flooding. In autumn heavy rains may lead to mudflows. After hot and dry summer season the soil surface lack its humidity and can easily be washed by water and transported by slopes and riverbeds together with the other collected erosion materials. This often causes high mudflow affecting residential areas, economy and agriculture. Mudflow in the project area usually occurs at Aghsu and Geychay and other small rivers. Many rivers, formed from rain and melted snow, start in the mountains at a height of 2,000–3,500 m and flow in deep ravines, forming rapids and waterfalls on their way, and when reaching the plains break up into numerous branches or go underground; very often they do not have permanent river beds (i.e., blind rivers), being lost in the steppes or becoming marsh ridden.

8.2.5 Wastewater

Water Supply and Sanitation: Access to safe water supply and sanitation affects the health and hygiene of communities. WHO statistics for 2014 show that 80% of the population in Azerbaijan has access to a sustainable and improved water source (home connection, public water taps, bore wells, protected bore wells, protected springs and rainwater harvesting). As for hygiene and access to sanitation, the situation is slightly better with 82% of the population having access to improved sanitation. These figures do not reflect the significant difference between urban and rural areas (urban areas have significantly higher rates than rural areas). The State Program on Social and Economic Development of Regions of Azerbaijan for 2014-2018 states that in the last 10 years, 3,400 km of new water supply lines and 1.2 km of new sewage lines have been built.

In the last 5 years, the government implemented projects financed by international financial institutions to improve the water and sewage infrastructure of Mingachevir, Hajigabul, Salyan, Bilasuvar, Yevlakh and Goychay towns. The conditions of Aghsu, Gobustan and Neftchala towns are relatively weaker in terms of water supply, especially sewage requirements.

8.2.6 Waste Management

Waste is defined "any substance or object which the holder discards or intends or is required to discard."[14] The Project will aim to prioritise waste prevention, followed by preparing for re-use, recycling and recovery and lastly disposal to landfill as per the internationally recognised waste hierarchy (see Figure below).

[14] *Directive of the EU on Waste - Waste Framework Directive (2008/98/EC)*

Figure 8-5: Waste hierarchy

Waste management is generally weak in Azerbaijan. The government is implementing a number of projects mainly in the capital city, but generally there is no modern sanitary landfill facility for the entire country. In this regard, it is expected that the majority of household waste in the project regions will be thrown into small local landfills, partially burned and buried. Garbage collection is provided by the relevant municipality and appears to be done with good frequency.

The types of wastes that may be generated by various activities during the project lifecycle are summarised in the Table below.

Table 8-7: Key types of waste generation

Project activity	Waste generation
Site preparation / earthworks / site remediation	- Surplus excavated materials. - Stripped topsoil and subsoil.
Dismantling / Construction	- Demolition waste from dismantling works on lines subject to reconstruction. - Packaging from materials delivered to site. - Excess and broken/damaged construction materials. - Waste additives and conditioning agents used for construction purposes. - Construction workforce wastes.
Operation and maintenance	Waste arising during operation and maintenance (expected to be minimal).

The potential impacts for the above activities would be mitigated by undertaking of construction works in accordance with a Project's CESMP which will include a Waste Management Plan, based on the following principles:

- Waste would be minimized wherever practicable by reusing and recycling any materials.

- All wastes would be identified, classified, quantified and, where practicable, appropriately segregated.
- All waste materials removed from construction sites would be in accordance with relevant national waste and environmental regulations.
- Waste would be transferred using registered waste transporters to a licensed waste disposal site or waste processing installation.

Since waste generation is expected to be very small during operation of the project, these aspects are scoped out of the ESIA.

8.2.7 Traffic and Transport

Transportation in the project areas is mainly carried out by roads. The M1, M2, M3 and M4 highways form the main artery through these areas. The project areas and most of the residential houses close to the project areas are on the side of secondary roads or in many cases rural dirt roads. Local roads in small towns and villages usually have badly weathered asphalt or are unpaved and simply dirt roads. These roads are dusty in summer and muddy in winter, causing inconvenience to residents.

Figure 8-6: Transport and Communication lines of Azerbaijan

8.2.8 Biodiversity, Protected Areas, Wetlands

Azerbaijan is relatively rich in ecological resources due to its complex geological history, diverse climate and its position on the border of Asia and Europe. A large proportion of endemism is observed and the

country hosts a large number of relict species. But in general, these resources have been partially depleted as a result of pollution and poor management under Soviet and post-Soviet rule. Improvements are being made and biodiversity is receiving increasing attention both nationally and internationally, but progress is slow. Azerbaijan has signed a number of relevant international agreements, especially the Convention on Biological Diversity.

ESIA will include a detailed assessment of potential impacts on biodiversity, protected areas, and wetlands resulting from the proposed project. This assessment will identify sensitive and critical habitats, including areas of high biodiversity value, endangered species habitats, and ecosystems providing essential services. The mapping of biologically and ecologically important areas (such as protected areas, water basin crossings, wetlands) is provided in this scoping report (please see Figure 8-7).

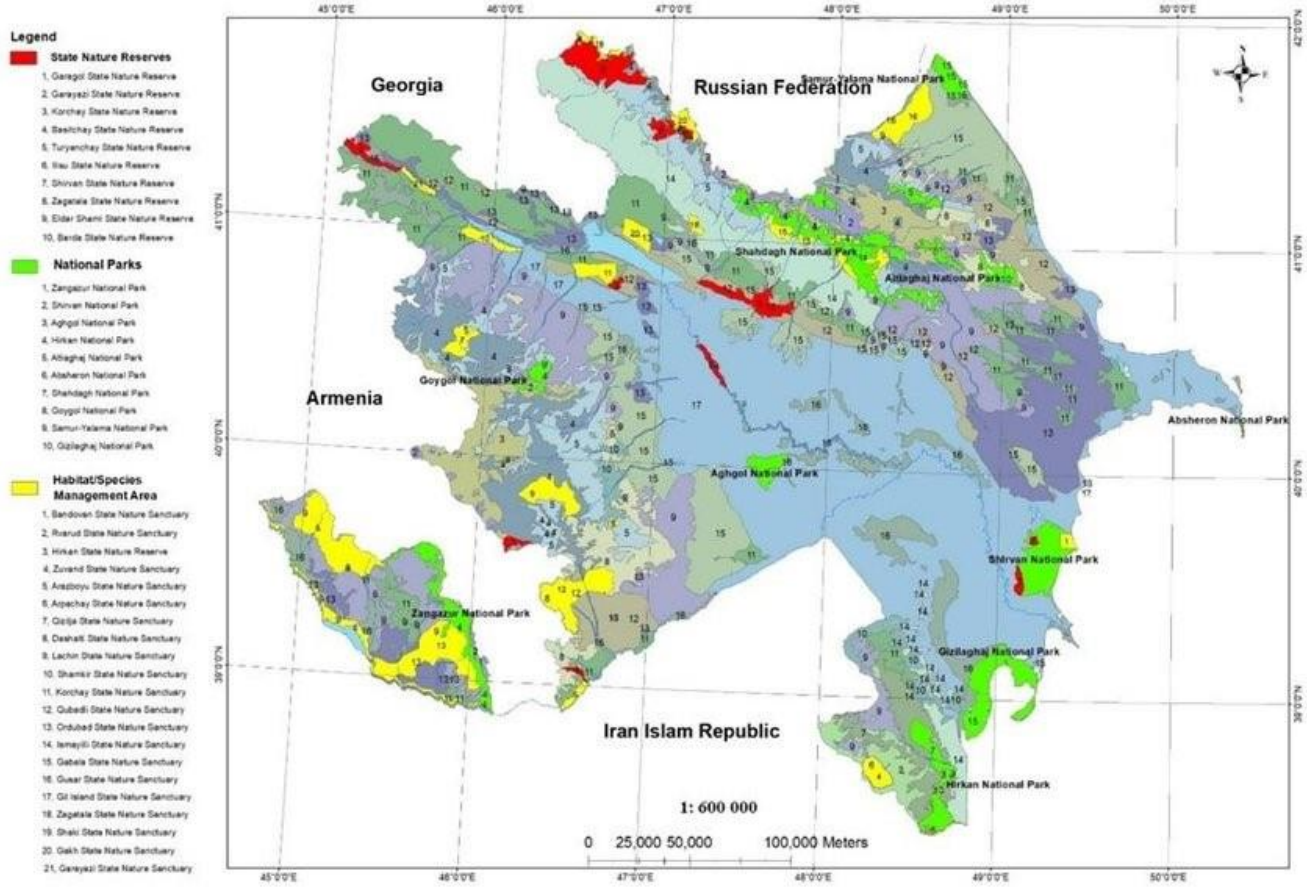


Figure 8-7: Map of protected areas of Azerbaijan

Wetlands, which play a crucial role in water purification, flood control, and as habitats for a diverse range of species, will be carefully examined for potential disturbances. Key concerns include habitat fragmentation, pollution, changes in water flow and quality, and increased human access to these sensitive areas. The identification process will utilize field surveys, remote sensing data, and consultations with biodiversity experts and local stakeholders. By thoroughly understanding these potential impacts, targeted mitigation measures and conservation strategies to protect and preserve biodiversity, maintain the integrity of protected areas, and ensure the sustainability of wetlands will be developed under respective ESIA/ESMPs.

Near the project area 2 natural reserves are located. Turyanchay reserve is located north of the transmission line between Mingechevir and Aghdash. The Shirvan National Park as well is north of the transmission line and the lowland area[15]. The transmission line corridors and substation will not affect national parks, reserves, or other areas that are protected or recognized for reasons of cultural ot biodiversity value. Thus the new transmission lines pass these two reserves in sufficiently away distance with special protection measures on OHLs to be introduced for protection of birds. .

The Shirvan National Park was set by the decree of the President of Azerbaijan on the area of 543.74 km² in Neftchala, Garadagh and Salyan administrative regions on the 5th of July 2003. It has a semi-desert landscape and water body of approximately 40 km². The national park has an extremely rich ornithological fauna. Rare and valuable species of birds (turaj, little bustard, bustard, swans, flamingo, white and black storks, etc) winter and nest in the marshy areas and around irrigation areas. Djeyran gazelles are the most widely spread mammals in the region. The territory of the region is subdivided into mountain and plain parts. Dry, hot summer and temperate moist winter characterize this region. The average annual air temperature is 9° C to 12° C. The total land area of the Shirvan region is about 1,340,000 ha, of which agricultural lands occupy 652,000 ha. Sowing area is 246,500 ha. Additional areas of about 174,600 ha are used for cotton growing, cereals, viticulture and animal husbandry.

The Turyanchay reserve was established in 1958, May 6 at the territories of Aghdash and Yevlakh regions 400 - 450 m up to sea level. It is protected and restored the arid landscape natural complex in the reserve which total area is 12.63 ha (www.ecogov.az). Especially juniper and pistachio forests, fauna, soils which are undergo erosion processes and the other natural complexes of Bozdag (between nocchay and Alijanchay rivers) are concerned here. The slopes of Bozdag consist of low hills which are devoid of plants cover and undergo to strong erosion. There are light-chestnut and brown soils here. It has mild-warm weather. The 73% of the territory is forests and 26% is non-forest area. There are 4 species of 6 of juniper-tree here which are typical for Azerbaijan. It has been arose hilly steppes covered by wormwood plants, rare beeches and junipers instead of sparse wood. There is also Iberian oak, elm, Iberian birch, poplar, south willow, wart alder, oleaster, etc species of plants widely spread here. It is typical 60 species of trees and bushes for the area and pomegranate and grape from this number are included in the Red Book.

Though the fauna is not very dense there are a lot of species of animals here. There are 24 species of mammals, 112 species of birds, 3 species of amphibians here. 9 species of vertebrate animals are included in the Red Book. There is Bear, Wild Boar, Wild Cat, Hare, Badger, Partridge, Pheasant, Griffon Vulture, Black Vulture and adder which are typical for the area.

Birds

More than 360 bird species inhabit the Azerbaijan territory. During migration and wintering periods, the importance of the shoreline and the wetland of the region is heightened due to the presence of a high number of migratory birds, in addition to the bird species present all year round. The Project covered areas are located away the main migration route through the lowland, as shown by the broad red line within Figure 8-7. The autumn migration in Alat area and Absheron Peninsula starts in the second half of August and continues until mid-December, or until mid-January in case of severe winter

[15] Azerbaijan Ornothological Society; www.aos.az

conditions, with the peak migration period in November. The spring migration, headed to the north, north-west or north-east, starts in the second half of February and finishes in April, with a peak period during March. Generally, the bird breeding period spans from March to August, with the spring and fall migrations occurring March to April, and August to October, respectively. Over-wintering birds inhabit the coastline in great numbers from October to March.

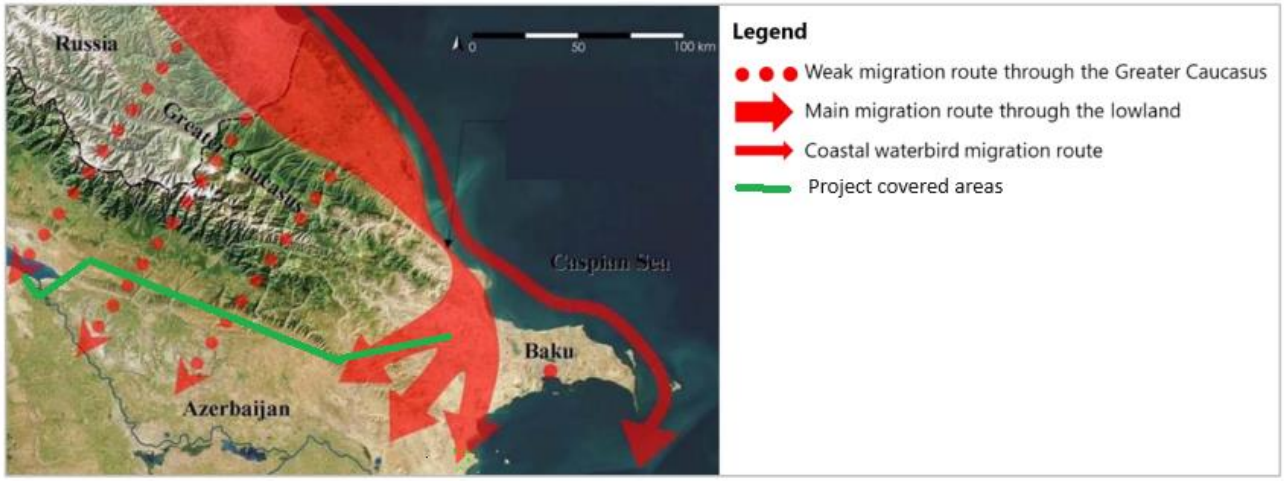


Figure 8-8: Important bird migration routes in autumn[16]

The Figure indicates important migration routes (red). The barrier function of the Greater Caucasus and the Caspian Sea lead to a concentration of migrating birds at this point. Dotted line = weak migration route through the Greater Caucasus, broad line = main migration route through the lowland, narrow line = coastal waterbird migration route.

Bird migration routes crossing Navahi SS- Mingachevir HPP and Navahi SS – Azerbaijan TPP in section between Navahi village and Aghsu region. Navahi SS – Absheron SS and Navahi SS – Absheron WPP are also traversing bird migration routes.

[16] *Coastal Bird Migration at the Caspian Shore of the Azerbaijan Republic in October 2007, Michael Heiss & Kai Gauger – 2011.*

Figure 8-9: OHLs traversing bird migration routes

Generally, Crested Lark (*Galerida cristata*, LC) and Isabelline Wheatear (*Oenanthe isabellina*, LC) are the most numerous during summer nesting, while Eurasian Skylark (*Alauda arvensis*, LC), Common Starling (*Sturnus vulgaris*, LC) and Rook (*Corvus frugilegus*, LC) in winter. Common sparrow (*Passer domesticus*, LC) and Eurasian Blackbird (*Turdus merula*, LC) are permanent inhabitants of the area all year round. The bird fauna includes also the Common Kestrel (*Falco tinnunculus*, LC), Rock Dove (*Columba livia*, LC), European Turtle-dove (Streptopelia turtur, VU), Little Owl (*Athene noctua*, LC) and Crested Lark (*Galerida cristata*, LC). Isabelline Wheatear (*Oenanthe isabellina*, LC), Lesser Kestrel (*Falco naumanni*, LC), Olive Bee-eater (*Merops superciliosus*, LC), Eurasian Penduline-tit (*Remiz pendulinus*, LC), Red-backed Shrike (*Lanius collurio*, LC) and Lesser Grey Shrike (*Lanius minor*, LC) are common breeding species in summer.

Why birds get electrocuted by overhead power lines and supporting poles?

All over the world, as well as Azerbaijan, bird deaths caused by overhead power lines are divided into two groups:

- Resulting from collisions with power line wires;

- Resulting from electrical discharge occurring during a short circuit (electrocution)

The risk of collision with electricity transmission lines varies among different species of birds. Usually it depends on the bird size, weight, character of flying, field of vision, time of the day and the special features of habitats near the power lines.

Line Marking and Visibility Enhancements

- Bird Flight Diverters: Install bird flight diverters, such as spiral markers, colored balls, and flappers, on transmission lines to make them more visible to birds. These devices can significantly reduce collision rates.
- Line Marking: Use high-visibility markers on the wires, especially in areas with high bird traffic, to increase the lines' visibility and help birds avoid them.

8.2.9 Socioeconomics

This section identifies and assesses the potential impacts the project will have on socioeconomic conditions – that is, on people and the economy. As is also true for environment impacts, socioeconomic impacts can occur during construction and/or operation and can be both - positive and negative. These impacts will vary by location, size, duration, distance to communities, land ownership and other factors.

Most of the population in Azerbaijan are within the age range of 30-34 (Figure 8-8). When looking at the entire population, the gender ratio of the country is quite even (50.1% females and 49.9% males). However, based on percentages from the population census, there is a larger proportion of males among the younger population (ages 0–25), and a larger proportion of females among the population aged 35 and over. Life expectancy at birth of the Republic of Azerbaijan has consistently increased over the last two decades and, it was equal to 78,8 years for females and to 74,0 years for males in 2019 (Figure 8-8). These figures also applicable to Project covered regions.

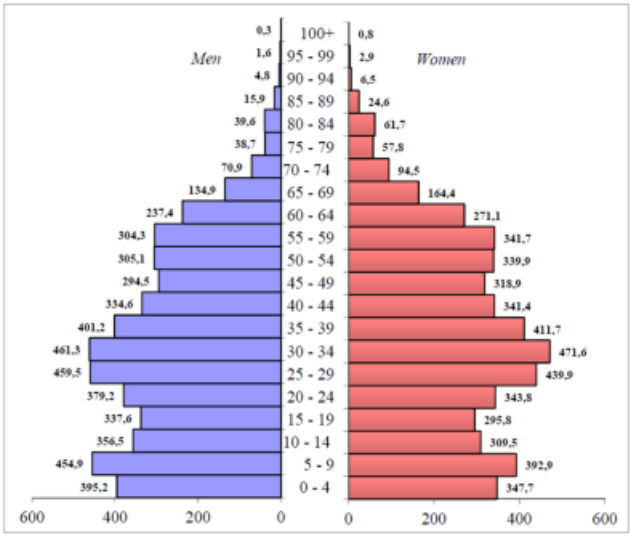


Figure 8-10: Composition of the population of the Republic of Azerbaijan by sex and age groups at the beginning of 2020 (thousands of persons)

This programme of resettlement – called the Great Return in Azerbaijan - is a key plank of the government's approach to overcoming the legacy of the 1990s conflict, when hundreds of thousands of Azerbaijanis were displaced. The programme began in July 2022 with almost 100 families moving to the newly-constructed Aghali settlement in the Zangilan region. Since then, families have also returned to Fuzuli, Talish (a village near the town of Terter), and Lachin, as well as to the neighbouring village of

Zabukh. As of April 2024, over 6,500 people had returned, about half to Fuzuli and over 2,500 to Lachin/Zabukh. Azerbaijan government plans the return of 20,000 people to five cities and 15 villages by end 2024, and - even more ambitiously - 140,000 by late 2026.

These vulnerable groups will not be adversely affected as a result of the project. On the contrary, improved electricity service and green energy transmitted as a result of the project will be a significant benefit to these communities living in Karabakh and remaining parts of Azerbaijan.

Potential Impacts and Principle Mitigation

Positive Impacts

- Employment Opportunities during Construction

During the construction, the Project will generate temporary employment opportunities, whether skilled, semi-skilled or as unskilled jobs. One of the key social positive impacts would be the provision of an income source for workers and their families contributing to their wellbeing and enhancing their quality of life. Measures to enhance these opportunities would include various instruments (e.g. preferable recruitment of local workforce in accordance with a specific Local Recruitment Plan, training that would be beneficial for future job prospects).

- Local Economy and Supply Chain Opportunities

The Project construction would provide opportunities for companies at the national, and possibly regional, level to supply goods and services. Local purchases of goods and services directly by the Project and workers during construction would foster the local economy. It would particularly concern communities directly affected by the Project, but also other nearby communities located in the vicinity of the Project site (e.g. local accommodation in settlements wherever possible).

- Improvement of the National/Regional Power System

The Project is part of a strategic programme that will be implemented over a number of years period by Azerenerji to strengthen the regional power transmission grid in the Southeast and Central Region of Azerbaijan, in order to meet the increased power demands and to connect existing and planned power projects, principally the growth of renewable energy sources.

More specifically, the Project will provide:

- Increased security of supply, and
- Secure and reliable integration of planned RES in the southeast region of the country, which consequently contribute towards reduction in CO2 emissions.

In general, the transmission lines and substation will upgrade and improve the reliability of the overall power transmission system in Azerbaijan, which will benefit all population of the country.

Land Acquisition

The project activities will permanently occupy a certain amount of land currently used for various activities. Some of the land will only be temporarily occupied during construction, to enable access to areas where the OHL towers will be built. Therefore, the Project will require temporary and permanent acquisition of land, which may involve particular economic effect on people (loss of assets) as a result of project-related land acquisition[17]) and/or restrictions on land use. No physical displacement of people (relocation or loss of shelter) is expected.

All land acquisition, either permanent or temporary will be done in compliance with the relevant Azerbaijan legislation[18] and international requirements (WB ESS 5). If land acquisition causes economic displacement of people, appropriate measures to assist with restoration of livelihoods and standards of living will be included in the respective land acquisition and resettlement documents, which are to be prepared once the detailed Project design is verified and detailed data on affected land property and its value is available.

According to the relevant Azerbaijani regulation[19], the minimum vertical clearance for 330 kV transmission line above the ground in areas accessible for people, including arable agricultural land, is 20 meters. This minimum vertical clearance is generally at the middle of a span between two towers. Therefore, all agricultural activities within the RoW which include cultivated plants (e.g. crops, vineyards, orchards, other valuable trees, etc.) which do not reach height of approx. 10 meters would not be necessary removed and can be further utilized as before construction of a transmission line. In addition, various forms of farming and livestock grazing within the RoW are not restricted, nor are regulated with applicable national legislation. However land use will be restricted and rights are diminished through easement mechanism that will be reflected in individual agreements with households subject to payment of compensation to PAPs, as per Section 5.7.

8.2.10 Gender and Vulnerable Groups

Gender

Along the project area, women population is comprised of 51% of the total population, the sex ratio of the total population in project area is 0.980 (980 males per 1,000 females), both female and male literacy rate in the study area is 99%. Analysis of the workforce participation of the surveyed population indicates that majority of the women are not participating in the workforce and the consultations also revealed that majority of the women are engaged in unpaid domestic work and marginal work. Therefore, women are almost entirely unrepresented in the workforce.

Table 8-8: The number of population by gender in the economic regions and administrative territorial units of the Republic of Azerbaijan, thousand people (as of 1 July 2023)[20]

[17] *Land acquisition includes both outright purchases of property and acquisition of access rights, such as easements or rights of way. (Source: International Finance Corporation (IFC), Performance Standard 5 - Land Acquisition and Involuntary Resettlement, January 1, 2012)*

[18] *Law of the Republic of Azerbaijan on acquisition of land for state needs No № 987-IIIQ, 20 April 2010*

[19] *Decision of the Cabinet of the Republic of Azerbaijan No 103, dated 10 June 2005 on the approval of "Rules for the protection of electrical networks with a voltage of up to 1000 volts" and "Rules for the protection of electrical networks with a voltage of more than 1000 volt"*

[20] *https://www.stat.gov.az/source/gender/*

Regions	***Total***		***Cities***		***rural***	
	female	***male***	***female***	***male***	***female***	***male***
Azerbaijan Republic	***5087,5***	***5039,6***	***2807,9***	***2719,3***	***2279,6***	***2320,3***
Absheron region	*213,2*	*218,3*	*157,6*	*160,5*	*55,6*	*57,8*
Aghsu region	*39,7*	*40,3*	*10,9*	*11,2*	*28,8*	*29,1*
İsmayıllı region	*43,2*	*43,4*	*14,8*	*14,7*	*28,4*	*28,7*
Qobustan region	*23,0*	*23,4*	*5,0*	*5,1*	*18,0*	*18,3*
Mingachevir town	*53,4*	*49,0*	*53,4*	*49,0*	*-*	*-*
Aghdash region	*53,1*	*53,2*	*17,5*	*16,7*	*35,6*	*36,5*
Goychay region	*58,7*	*59,1*	*17,4*	*16,9*	*41,3*	*42,2*
Ucar region	*42,8*	*41,7*	*9,0*	*8,1*	*33,8*	*33,6*
Yevlakh region	*65,7*	*62,7*	*37,5*	*34,5*	*28,2*	*28,2*
Bilasuvar region	*52,5*	*53,0*	*11,7*	*11,9*	*40,8*	*41,1*
Hacıqabul region	*38,2*	*37,1*	*19,1*	*18,0*	*19,1*	*19,1*
Neftchala region	*44,7*	*42,1*	*20,8*	*19,1*	*23,9*	*23,0*
Salyan region	*69,6*	*69,0*	*23,1*	*21,4*	*46,5*	*47,6*

Within the framework of various projects, the Women's Resource Centers established by the State Committee on Women and Family Affairs in 10 regions (including Bilasuvar, Neftchala, Salyan, Goychay project regions) which have expanded their activities in the field of supporting the active participation of women living in villages and towns in the economic and social life, increasing their business and social opportunities, as well as the creation of a network among economically active, entrepreneurial women.

Vulnerable groups

The Project has the potential to impact vulnerable people. Vulnerable people may require special resettlement assistance measures because they are less able to cope with economic displacement compared with others:

A list of vulnerable people that could, potentially, be directly affected by the Project through land access restrictions and land use change, has been compiled and is listed below:

- Persons who are elderly.
- Families who have lost both parents (they are orphans).
- Families where a disabled child is present, or a disabled parent is present.
- A family who is on a low income and lives below the national poverty line. This is classified by the State Statistical Committee for 2020 (the most recent published data available) to comprise a monthly household income of 195 AZN (USD 115) or less, or a household in substantial debt.
- A widower raising two or more children under the age of 14, living separately from other relatives.
- Mothers or fathers who are bringing up the children in a single-parent family.
- Families in which both parents are unemployed.
- Single retired persons living on their own.
- Internally Displaced Persons (IDP) household.
- People with poor health status, or illiteracy in a farmer or herder household; and

- People who are discriminated against in society due to their ethnicity, belief system, health status (including HIV), sexual or gender orientation/self-identity.

8.2.11 Land Use including displacement

The Project will affect the current land cover forms and their use pattern during the construction and operational phases, with significant difference between the elements that will be reconstructed / upgraded and newly constructed elements. This section provides an overview of the current baseline and potential impacts of the Project on the land cover and describes the principle mitigation approach.

An area of 1,000 meters wide OHL corridor (500 meters on both sides from the longitudinal axis of the transmission line), including the SS location (Sub-project 1), is used for this ESIA scoping phase to present the baseline in wider context, which is considered as representative and sufficient to identify the current land use and structure in the broader area and to assess indirect impacts for the Project.

For the purposes of the ESIA Report, the study area within the infrastructure corridor (defined for the purpose of this appraisal as 100 metres wide corridor) will be used for consideration of the direct effects and changes on the current key land use forms (e.g. agricultural land, woodland, urban land, etc.). This zone is based on the land anticipated to be directly affected by the Project, i.e. potentially required temporarily and/or permanently for the construction, operation and maintenance of the transmission lines and where specific land use rules would be established to ensure technical safety of the OHL and protection of people and environment during its operation.

Baseline Conditions

Comparative land cover assessment within the study area of the Project's components is made based on land cover viewer website and is presented below[21].

Sub-project 1 - New 500/330 kV Navahi SS

Baseline land cover conditions for this sub-project are provided below.

- Due to the relatively small affected area, there is only one land cover class which is herbaceous vegetation. The soil of the area is composed of grey-brown, grey-meadow, saline soils.

Sub-project 2: New 500kV Transmission Lines

The land cover within the study area of this Project component (Figure below) is dominated by agricultural land cover types (80%). It is also characterized with small percentage of tugay forests (6%) as well as significant percentage of urban and industrial areas (14%). The Project will not have any negative impact onto tugay forests as its subprojects do not encroach any piece of tugay forest in their alignment.

[21] *https://lcviewer.vito.be/2015/Azerbaijan*

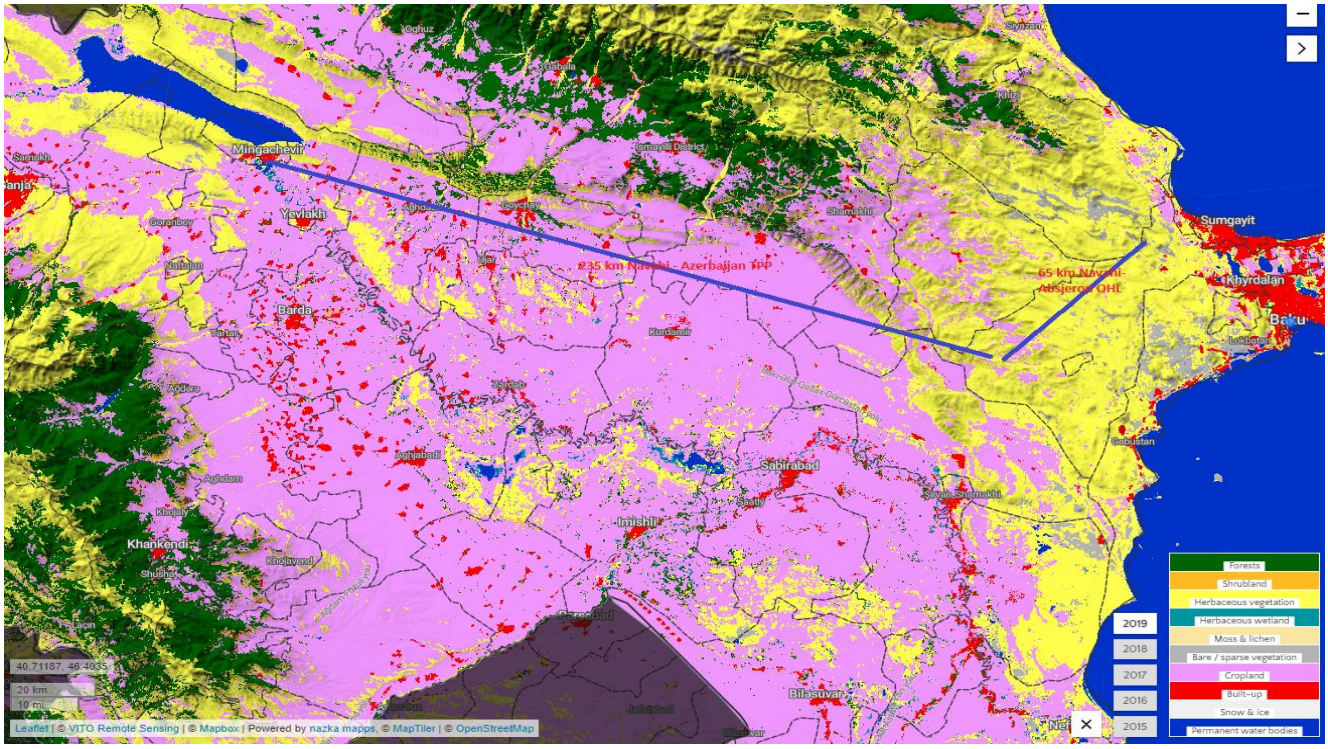


Figure 8-11: Land cover of proposed alignment for Sub-Project 2

Sub-project 3: New 330kV Transmission Lines

The land cover within the study area of this Project components (Figure below) is dominated by herbaceous vegetation (80%). They are also characterized with small percentage of croplands (20%).

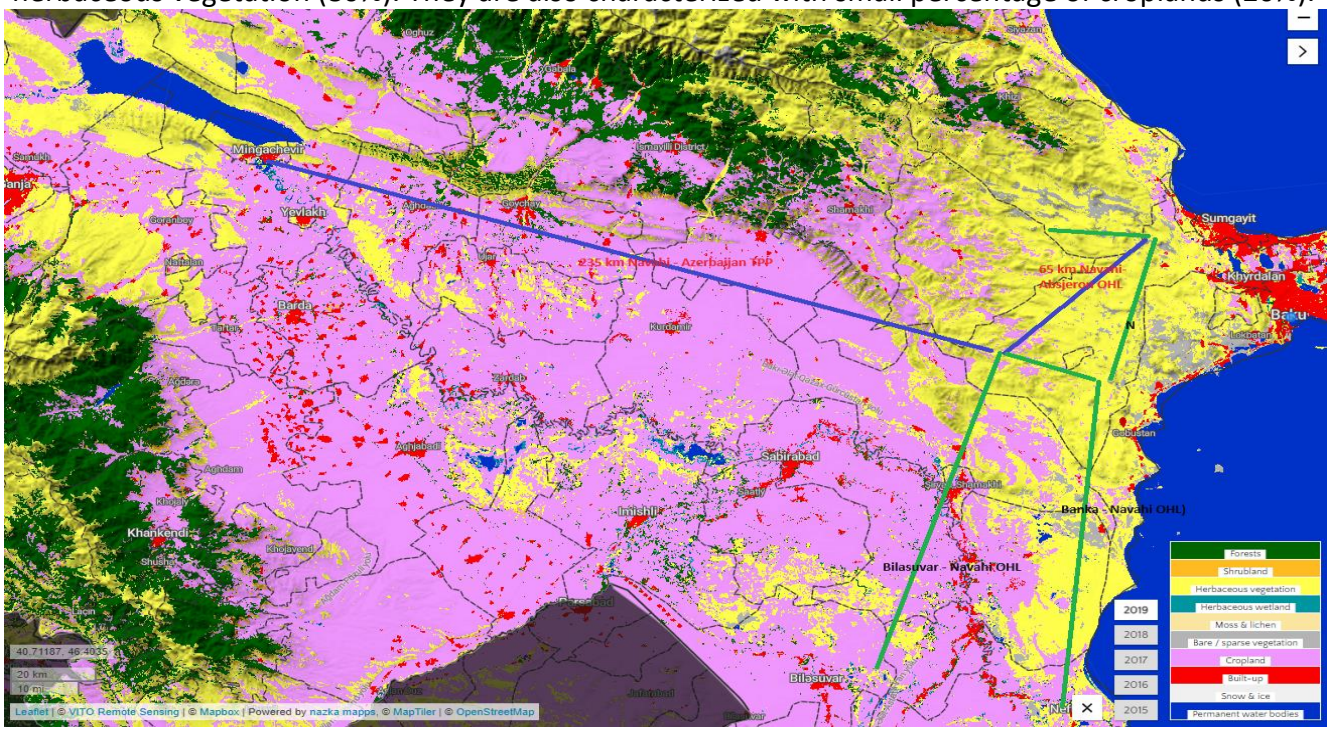


Figure 8-12: Land cover of proposed alignment for Sub-Project 3

Sub-project 4: Expansion works in existing substations

This Sub-Project is free from any land use pattern change as the Project components will be implemented within the boundaries of existing substations owned by Azerenerji.

Potential Impacts and Principle Mitigation

In general, the construction and operation of the Project will have certain, but limited, land use effects which will be relevant in the case of new 500/330 kV substation and new proposed transmission lines. However, the land transformation in these cases is considered as of very low magnitude and significance of these effects is likely to be negligible. In principle, both public and privately owned land will likely be affected by the implementation of the Project activities. The land use changes from the Project development would imply environmental as well as social element and in principle would typically include the following topics:

- Habitat loss. The Project will require removal of vegetation for construction activities (including access roads) and for creation of the OHL clearance corridor thus leading to temporary and permanent habitat losses, including woodland habitats. The construction of new access roads (where necessary) and rehabilitation of the existing ones may contribute to increased illegal logging, hunting and collection of non-timber forest products. However due to the current wide accessibility of the Project locations, this risk is considered as of low magnitude.
- Land conversion due to land take, including agricultural land as dominant land use form in the study area, in the case the new 500/330 kV transmission network (Sub-project 2 and 3). Construction of the Project will require conversion of land due the temporary use of agricultural land and land use forms for construction activities (including access roads where they do not exist). Relocation as well as clearance of existing structures to make way for transmission lines narrowband approach to TPP will be required when needed, but with current design it appears as if this has been avoided. Dust may affect arable land and construction noise and traffic may disturb livestock. In addition, permanent acquisition of agricultural land (land take) will be required within the footprint of the Project components, mainly land needed for the construction of the new OHL towers, that would permanently disrupt agricultural activities, resulting in long-term operational impacts. In addition, this may result in severance of land parcels.

There are no universally applicable measures available to mitigate the direct permanent change / loss of land resulting from land take required for the Project. Measures to mitigate the land take will need to be incorporated into the further designing process of the Project (i.e. fine-tuning of the new OHL corridor(s) as a key design principle to sought to achieve avoidance of take of agricultural or forest land as well as to minimise the involuntary economical resettlement of people, as far as practicable.

According to the relevant Azerbaijani regulation[22], the minimum vertical clearance for 330 kV transmission line above the ground in areas accessible for people, including arable agricultural land, is 20 meters. This minimum vertical clearance is generally at the middle of a span between two towers. Therefore, all agricultural activities within the RoW which include cultivated plants (e.g. crops, vineyards, orchards, other valuable trees, etc.) which do not reach height of approx. 10 meters would not be necessary removed and can be further utilized as before construction of a transmission line. Other typical mitigation for land use change will relate to the reinstatement of land used temporarily during the construction period.

8.2.12 Labor and Working Conditions

Labor and working conditions are a cross-disciplinary area concerned with protecting the safety, health and welfare of people engaged in work or employment.

Working conditions and worker's accommodation facilities will be set in compliance with relevant Azerbaijani labour legislation. Principle mitigation measures during the construction of the Project would include creation of a number of thematic plans as part of the Project's CESMP for overall social management, such are the following (at a minimum):

- Occupational Health and Safety Management Plan
- Labor Resources Management Plan
- Workers' Accommodation Management Plan
- Emergency Preparedness and Response Plan

According to preliminary assessments and Azerenerji's Supplier Social Responsibility Program applied to its vendors and contractors, other labor risks are not considered significant. Given that the Labor Code will be followed, which also prohibits child and forced labor, the risks related to labor flows and related gender-based violence (GBV) and labor resources, including child labor are low. Mitigation measures to address GBV risks are included in the Company's Social Responsibility Policy and Discrimination, Harassment and Retaliation Policy. The LMP drafted for the Project includes a generic Corporate Code of Ethic to be adopted by all contractors and other employers in the project.

These documents would set out the mitigation requirements and would contain measures to ensure compliance of the Project construction with the relevant standards and legislation in the labor and working conditions domain.

The occupational health and safety performance during operation of the Project will comply with the requirements of Azerbaijan legislation and the relevant Policies of Azerenerji JSC, which, inter alia, includes a certified management system for occupational health and safety[23].

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[22] Decision of the Cabinet of the Republic of Azerbaijan No 261, dated 16 May 2024 on the approval of "Rules for the protection of electrical networks with a voltage of up to 1000 volts" and "Rules for the protection of electrical networks with a voltage of more than 1000 volt"

[23] Azerenerji has Policies incorporating quality, environment and health & safety, certified under respective internationalstandards - ISO 9001 (quality management), ISO 14001 (environmental management) and ISO 45001 (health and safety management)

8.2.13 Influx Management

Poor behavior by workers from outside the region can lead to disruption of local community cohesion, especially smaller communities. This can occur through unaccustomed or violent behavior, including gender-based violence, and/or an increase in communicable diseases. This will be controlled by requiring workers to abide by a Worker Code of Conduct that will prescribe certain behaviors and require others; the contractor will be required to enforce the Code, with penalties leading up to dismissal. In addition, Azerenerji, the Owner's Engineer, and the contractor will consult with local authorities and community leaders, which will ensure they (that is, project managers) are aware of incidents and can take appropriate action if the issue arises. Finally, Azerenerji (through the Owner's Engineer) and the contractor will establish communications with local law enforcement authorities, so they are aware of the influx of workers, including where they will be working and where they will reside, and can take appropriate precautions.

Labor influx and related gender-based violence (GBV/GBV) and child labor are considered minimal due to existing laws. Tender documents for construction works contain provisions prohibiting the use of forced labor by contractors. Forced labor, Gender-Based Violence will be checked and reported by the PIU officials supervising the contractors. A project-level GRM will be established to address community grievances due to labor influx or any other project-related issues.

There is potential for an increased risk of the spread of communicable diseases and increased rates of illicit behaviour and crime resulting from the worker influx, especially to the construction of Navahi substation; however, the volume and skilled nature of the incoming workforce reduces this likelihood. All workers will be required to sign a worker's code of conduct and will be made aware of the disciplinary actions that will be taken if behaviour that is not in keeping with the code of conduct is observed. All residual impacts are considered to be minor.

The influx of workers an indirect negative impact, which will be local and short to medium. The impact (negative) significance is assessed to be negligible both during construction and operation.

8.2.14 Occupational Health and Safety

It is estimated that the major labor risks will be related to health and safety risks associated with the construction of power transmission lines, such as exposure to physical, chemical and biological hazards during construction activities: use of heavy equipment, slip and fall hazards, exposure to noise and dust, falling objects, exposure to hazardous materials and exposure to electrical hazards when using tools and machinery. As construction activities involve hazardous work, persons under the age of 18 will not be employed on the project. Azerenerji has internal audit and quality control division who will undertake ad-hoc surprise visits to project sites to conduct due diligence. Many workers will be exposed to occupational health and safety (OHS) hazards, including but not limited to:

- Traction works
- Working at heights
- Electric current and arc fault burns

- Electrical works
- Exposure to chemicals (paints, solvents, cooling oil for transformers and switches, lubricants, fuel, etc.)
- Saws and falling wood during logging
- Working in steep and dangerous areas.
- Traffic accidents.
- Excavation hazards
- Lifting of heavy formations
- Accidents
- Exposure to airborne pollutants (dust, silica and asbestos) during construction
- Ergonomic hazards during construction
- Environmental hazards (snakes, bees, scorpions, etc.)
- Welding hazards (smoke, burns and strong light radiation)
- Dangers of installation of supports (metal work).
- Steel erection hazards

In addition, based on the experience with construction projects in Azerbaijan, it is assumed that lack of workers' awareness and enforcement of OHS requirements such as wearing PPEs and safe workplace practices may be a potential labor risk. These risks at work shall be mitigated in line with Policies and Procedures included in the LMP.

The Project will be implemented to be fully compliant to Occupational Health and Safety (OHS) standards for work of this nature, including all potential risks associated with Project aspects eg earth moving, drilling, steel erection and working at height activities. The OHS policies and procedures should encompass industry best practice arrangements, based on the approach specified in ESS2, to include a standard risk assessment hierarchy of management and associated practices, encompassing the awareness and task-specific training to all workers as appropriate.

8.2.15 Community Health and Safety

In general, the potential for impacts of construction and operation on communities and community members is related to the distance that people live from the new transmission line. From analysis of the revised line there will be no direct or indirect impact to the households of the indicated villages/settlements.

Table 8-9: Settlements by regions and their vicinity to sub-projects

Regions	**Settlement**	**Relative distance to settlement**
Bilasuvar	Bilasuvar town	20 km
Salyan	Ashagi Nokhudlu	1 km
	Salmanli	1 km
	Kardili	1 km
	Khalaj	500 m
	Kursangi	1 km

Regions	**Settlement**	**Relative distance to settlement**
Hajigabul	Navahi	1200 m
Neftchala	Banka	700 m
Salyan	Khidirli	500 m
Hajigabul	Navahi	1200 m
Hajigabul	Ranjbar	700 m
	Pirsaat	700 m
Aghsu	Langabiz	500 m
	Goylar	500 m
	Bico	500 m
	Gəyəli	500 m
	Garagoyunlu	500 m
Ismayilli	Gubakhalilli	1,7 km
Goychay	Garamaryam	500 m
	Garabaggal	1,2 km
	Mirzahuseynli	1 km
	Arak	1 km
	Hushun	1 km
Agdash	Yukhari Aghjayazi	1 km
	Goshagovag	1 km
	Arabojagi	1 km
Yevlakh	Arash	1,5 km
	Yukhari Bujag	1 km
	Gulovsha	200 m
	Aksham	100 m
	Havarli	500 m
	Hajiselli	1.5 km
	Salahli	1.5 km
	Huruushagi	500 m
	Boshchali	500 m
	Tanrigulular	1 km
Mingachevir town	Mingachevir town	500 m
Hajigabul	Navahi	1200 m
	Gizilburun	1 km
	Atbulak	1,5 km
	Garakosa	1,5 km
Garadagh	Alat	2 km
Hajigabul	Navahi	1200 m
Gobustan	----	
Gobustan	----	
Absheron	Gobu	3 km
Total		

Construction Traffic

Construction works, heavy machinery and large transport vehicles and increased intensity and volume of the traffic will affect the normal road traffic regime in the Project area. It is expected that the principle means of transport proposed to service project construction will be by road due to the fairly developed road network in the Project area, and the flexibility required in delivering machinery and materials to locations across the corridor.

It is clear that construction traffic will increase traffic flows on some roads, particularly the local road network and on unclassified roads, where traffic levels are typically low. In order to minimise impacts on residential areas from traffic during the construction works, a set of mitigation measures needs to be proposed and detailed Traffic Management Plan to be developed as a part of the Project's CESMP, which will (i) define the characteristics of the construction fleet of vehicles and site machinery, (ii) describe the expected Project's traffic (frequency of trips, working hours, convoys) and (iii) detail all site-specific measures that would be implemented during the construction period to minimise the nuisances to neighbourhoods generated by its fleet and to reduce the risk of accidents.

Electric and Magnetic Fields (EMF)

An electromagnetic field (EMF) is emitted by any electrical device, including power lines. The electric field (EF) is produced by the difference of potential between two points (that is, the voltage) and is measured in kV per meter. The magnetic field (MF) is produced by electric current and is measured in microteslas (μT) or nanoteslas (nT)—one tesla (T) is equal to 10,000 Gauss. Unlike electric fields, magnetic fields pass through most materials and are difficult to shield. Both electric and magnetic fields decrease inversely to the square of the distance, therefore reduction in voltage takes place quickly over very short distances, as is illustrated in Figure 8-11. Directly under a high-voltage line, EMF can reach levels of 100 μT or more, but after 25 meters can be as low as 1 μT, although typically 10-20 μT.

Over the last 30 years, extensive research has been conducted in the European Union, the United States, and around the world to examine whether exposure to EMF has adverse health or environmental effects. In general, exposure to EMF is affected by the types of electrical sources, the distance from these sources, and the amount of time spent near these sources. Scientific research has focused on magnetic fields, since objects such as trees and walls act as physical barriers that easily block and shield electric fields.

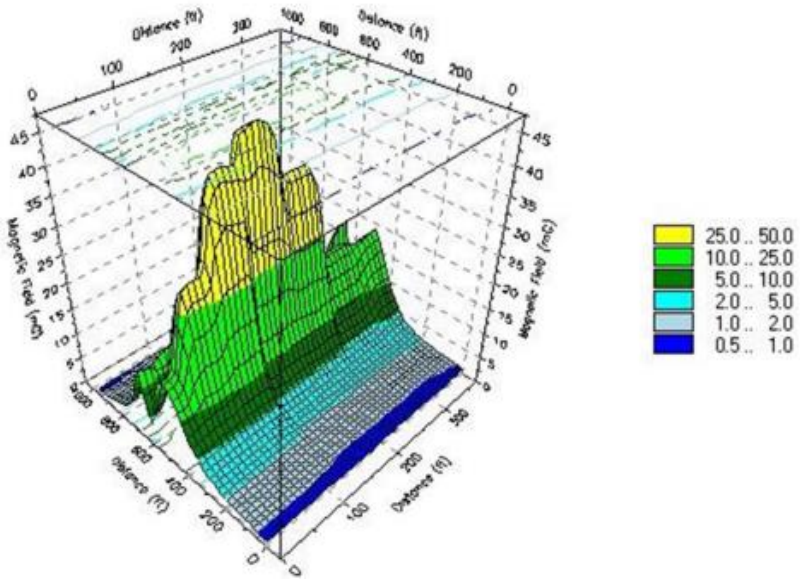

Figure 8-13: Decrease in Electromagnetic Field Strength with Distance from 500kV Circuit (Horizontal Axis is in Feet (0.331), Vertical Axis is mG (See Scale))

Since the intensity of magnetic fields diminishes quickly with distance from the source, and considering that the OHLs and the substation are sufficiently away (see Table 8-4 above) from transmission lines the Project is not expected to have an impact on the magnetic field level within the households. Rather, the major sources of residential magnetic field levels are electrical appliances within the home. To provide some context, in many homes the background alternating current magnetic field levels average about 0.1 to 10 µT and are the result of electricity passing through wiring within the home and appliances, and through power lines outside the home. The average daily exposure is the composite of instantaneous, higher exposures (such as driving under a power line) and long-term, low exposures (such as wiring within a home).

Azerenerji commits on all its projects to comply with the International Commission on Non-Ionizing Radiation Protection (ICNIRP) Guidelines for Limiting Exposure to Time-Varying Electric, Magnetic and Electromagnetic Fields as recommended by both the IFC and European Union[24]. Azerenerji will also commit to meeting requirements set out in Sanitary Standards and Rules of Protecting the Population from the impact of the electric field, created by AC overhead power transmission lines of industrial frequency which is a former Soviet Union document that is still used by the Azerbaijan Ministry of Health.

When, the EMFs resulting from electrical equipment comply with these exposure guidelines there can be no likely significant effects from EMFs. The assessment of EMFs for each Project Component will be provided in the ESIA Report. Azerenerji recognises public concern regarding EMFs and proposes to provide all the relevant information on EMFs for the public disclosure of the Projects.

[24] *EU COUNCIL (1999) Recommendation of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz) (1999/519/EC).*

8.2.16 Cultural Heritage

Study area

For the purposes of the preliminary assessment, the study area includes protected cultural heritage assets in an area of 200 metres around the Project components. This distance is considered as an area in which there may be an impact due to physical and historical connectivity and relationships as well as due to changes to noise levels, air quality and traffic during the construction. The ESIA will include a detailed cultural heritage assessment that will confirm, or expand upon, these proposed buffers and likely heritage areas of importance that may be impacted. The Figure 8-12 shows the OHLs and cultural objects in Azerbaijan as currently know.

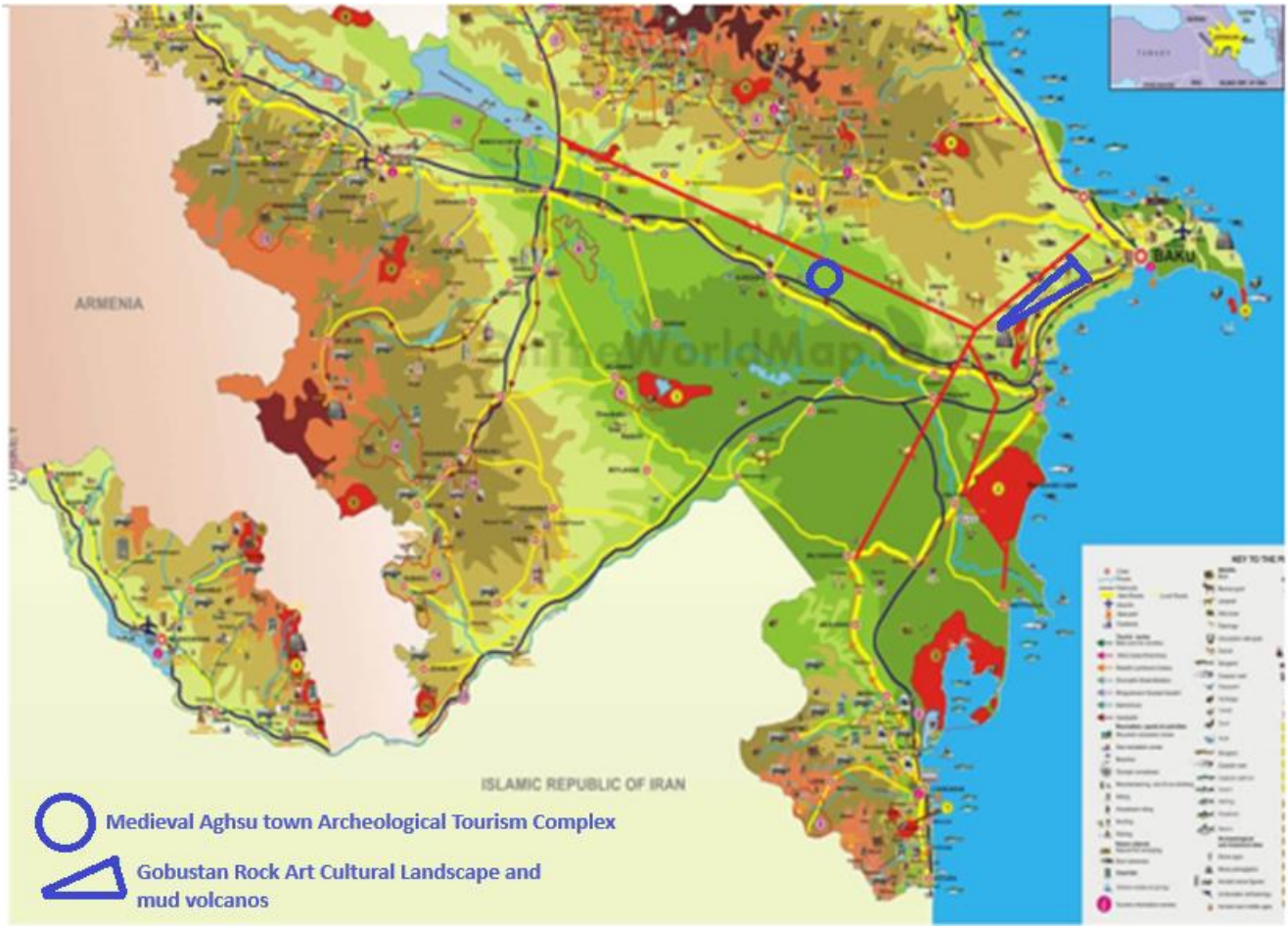

Figure 8-14 OHLs and cultural objects in Azerbaijan.

Baseline conditions

1) Sub-Project 1: 500/330kV Substation

No cultural heritage resources in the proposed substation area and its close vicinity.

2) Sub-Project 2: 500kV Transmission Lines

The proposed route of 500 kV OHLs (Navahi SS - Azerbaijan TPP and Navahi SS – Absheron SS) do not cross any known cultural heritage site or location of cultural importance. The only heritage site called Mediaval Aghsu Town Archaelogical Tourism Complex is located within the safe distance (200 m) from the proposed alignment of 500 Kv Navahi SS-Azerbaijan TPP OHL. Out of the four volcanos detected in the vicinity of the OHLs, Goturdagh and Dashgil are considered as natural resources of touristic interest; these volcanoes are located 3 km South and around 2 km north-west to the OHLs (See Figure 7-17 below).

3) Sub-Project 3: 330 kV Transmission Lines

The proposed route of 330 kV OHLs (220 km length Navahi-Mingachevir HPP, 20 km length Navahi SS - Alat FEZ SS) do not cross any known cultural heritage site or location of cultural importance. The only heritage site called Mediaval Aghsu Town Archaelogical Tourism Complex is located within the safe distance (250 m) from the proposed alignment of 330 Kv Navahi SS-Mingachevir HPP OHL. Out of the four volcanos detected in the vicinity of the OHLs, Goturdagh and Dashgil are considered as natural resources of touristic interest; these volcanoes are located 3 km South and around 2 km north-west to the OHLs (See Figure 7-17 below).

4) Sub-Project 4: Expansion works in existing substations

The proposed expansion works at Gobu, Absheron, Mingachevir and Azerbaijan substations will be implemented within the boundaries of the existing substations owned by Azerenerji JSC which are free from any cultural heritage objects or culturally important artefacts.

8.2.17 Potential Impacts and Principle Mitigation

The key potential impact during the construction of the Project is related to the risk of partial or total removal or destruction of unknown heritage assets (undiscovered archaeological sites) due to ground removal, which implies the need for setting mitigation approach.

During the construction works, as part of the Project's CESMP, a protocol ("chance-find" procedure) is to be developed and implemented. This protocol would be in compliance with the national legislation on the protection of cultural heritage[25]. Workers need to be trained in the use of this procedure.

Since the impact to the cultural heritage sites is likely to be very small during operation of the project, these aspects are scoped out of the assessment.

[25] *Decision No. 266 dated 14 July 2025 of the Cabinet of Ministers of the Republic of Azerbaijan on approval of the "Regulation on the protection, restoration and use of cultural heritage samples in the Republic of Azerbaijan"*

8.2.18 Cumulative Impacts

Cumulative impacts refer to the accumulation of human-induced changes on valued environmental and social components over time and across space in an additive or interactive manner. Therefore, cumulative impacts are combined changes to the environment caused by two or more projects that are close to the same location or area, and which types of construction or operational impacts have similar nature and potential for interaction. Cumulative impacts, cumulative effects or cumulative environmental changes are generally interchangeable terms. Typically, the main cumulative impacts occur as inter-project effects – the effects of a series of other developments of similar type and scale in the vicinity of the Project which are proposed, under construction or have been consented, which when combined with the effects of the proposed project may have an incremental significant effect.

In principle, for this transmission development, cumulative effects may most likely occur during its construction in a form of typical impacts associated with construction works (air pollution, nuisance due to construction noise, traffic disturbance, etc.) or during its operation as a result of interaction with projects of similar type (e.g. other transmission projects, wind power developments, etc.) and size in its surrounding.

For the purposes of the Project's E&S appraisal, the assessment of cumulative effects arising from the Project in combination with other proposed developments will primarily constitute a desk-top study of planning documents considered relevant to the assessment. The focus of the desk-top study will be the collection of information relating to the background of relevant projects, their expected timelines and likely impacts. In addition, these developments would be reviewed with an aim to assess their potential temporal and spatial interactions with the Project.

9. CONCLUSION

The scoping report has laid the foundation for a thorough and comprehensive Environmental and Social Impact Assessment (ESIA) for the proposed project. Through detailed baseline studies, stakeholder consultations, and preliminary impact assessments, the scoping report identified the key environmental, social, health, and cultural heritage issues that require careful consideration and management.

The report has highlighted potential impacts on biodiversity, protected areas, wetlands, and local communities, as well as socio-economic, health, and cultural heritage concerns. It underscores the importance of adopting a holistic approach to assess direct, indirect, and cumulative impacts, ensuring that mitigation measures are both effective and sustainable.

The identification of these key issues early in the project planning process enables us to develop robust management and mitigation strategies. This proactive approach not only helps in minimizing adverse impacts but also maximizes potential benefits, ensuring that the project contributes positively to the environment and the well-being of the affected communities.

As we move forward to the next phase of the ESIA, the insights and data gathered during the scoping process will guide detailed impact assessments and the formulation of comprehensive management plans. Continuous engagement with stakeholders will remain a priority, ensuring that their feedback and concerns are integrated into project planning and implementation.

By adhering to the principles outlined in this scoping report, Azerenerji is committed to fostering sustainable development that balances economic growth with environmental stewardship and social responsibility. The upcoming phases of the ESIA will build upon this foundation, aiming to deliver a project that aligns with both national and international standards for environmental and social sustainability.

This study started at the pre-planning stage of the project. Primary and secondary data were used to assess the environmental impacts. The potential environmental impacts were assessed in a comprehensive manner. The report provides a comprehensive picture of all potential environmental impacts associated with the Project, and recommended suitable mitigation measures. This study recommends that some further follow up studies and especially an accompanying audit of the integration of the ESMP and the implementation of measures and monitoring needs to be undertaken during project processing in order to meet the WB requirements.

There are some further considerations for the planning stages such as obtaining clearance for the project under the Azerbaijan Law but environmental impacts from the grid enhancement works will mostly take place during the construction stage. There are also some noise impacts and waste management issues for the operational stage that must be addressed in the detailed design and through environmentally responsible procurement. At the detailed design stage the number of and exact locations for transmission towers may change subject to detailed surveys but the impacts are likely to be broadly similar at most locations and impacts have to be reviewed in the environmental impact section of the ESIA report.

There are a number of key actions required in the detailed design phase. Prior to construction Azerenerji must receive clearance certification from the Azerbaijan Government and Azerenerji must complete the detailed Environmental and Social Management Plan (ESMP) and incorporate into the detail design and overall project management. These plans should be reviewed and accepted by the Ministry of Ecology and Environmental Resources and agreed by any contractors prior to signing the contracts. The information provided in this report can form the basis of any further submission to the related Ministries as required in future.

The alignment is restricted to the enhancements indicated in this report but further details are required on the land required and for any other improvements along the alignment where land is the private land and no land acquisition, compensation and resettlement is involved. However, crops and settlements need to be compensated to the concerned parties, if needed. Provisions may be made in the Resettlement Action Plan (RAP), based on the proposed alignments. RAP has to be completed in tandem with the ESIA for the whole project.

10. REFERENCES

The scoping report has utilized a range of authoritative sources to ensure a comprehensive and accurate assessment of the potential impacts associated with the proposed project. Key references include:

1. World Bank Environmental and Social Framework (ESF): World Bank Group, 2016. This framework provides guidelines on managing environmental and social risks, ensuring that projects are sustainable and inclusive.
2. Environmental and Social Impact Assessment (ESIA) Guidelines: International Finance Corporation (IFC), 2012. These guidelines offer a detailed methodology for conducting environmental and social impact assessments.
3. Biodiversity and Ecosystem Services in Impact Assessment: International Association for Impact Assessment (IAIA), 2018. This document outlines best practices for assessing and mitigating impacts on biodiversity and ecosystem services.
4. Guidance Note on Managing the Risks of Adverse Impacts on Communities from Temporary Project Induced Labor Influx: World Bank, 2016. This note provides strategies for managing the social impacts of labor influx in project areas.
5. Environmental Impact Assessment: Guidelines for Development Projects in Developing Countries: United Nations Environment Programme (UNEP), 2002. This source provides comprehensive guidelines for conducting EIAs in developing contexts.
6. Social Impact Assessment: Integrating Social Issues in Development Projects: Vanclay, F. and Esteves, A.M. (Eds.), 2011. This book offers insights into the methodologies and practices for effective social impact assessments.
7. Azernerji Strategic Development Program for 2024-2034 - the program was developed by McKinsey which establishes development directions for Azerenerji including planned investment projects.
8. State Statistical Committee of the Republic of Azerbaijan, Statistical Yearbook “Transport in Azerbaijan”, 2020
9. USAID, Biodiversity Analysis Update for Azerbaijan, 2010.
10. Coastal Bird Migration at the Caspian Shore of the Azerbaijan Republic in October 2007, Michael Heiss & Kai Gauger – 2011.

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- https://www.protectedplanet.net/country/AZ
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- https://www.stat.gov.az/source/environment/?lang=en
- www.iucnredlist.org
- https://lcviewer.vito.be/2019/Azerbaijan

Annex A. List of Stakeholders

Name	***Category***
Project-Affected Parties for the Project	
Property owners along the routes of OHLs	*Project Site Stakeholder*
People residing in the project areas	*Project Site Stakeholder*
Municipality and village representatives of the following municipalities/villages:	*Project Site Stakeholder*
Navahi settlement (Hajigabul) administrative representative	*Project Site Stakeholder*
Ranjbar village (Hajigabul) administrative representative	*Project Site Stakeholder*
Gizilburun village (Hajigabul) administrative representative	*Project Site Stakeholder*
Pirsaat village (Hajigabul) administrative representative	*Project Site Stakeholder*
Banka settlement (Neftchala) administrative representative	*Project Site Stakeholder*
Shirvanli village (Neftchala) administrative representative	*Project Site Stakeholder*
Yukhari Nokhudlu (Salyan) village administrative representative	*Project Site Stakeholder*
Salmanli village (Salyan) administrative representative	*Project Site Stakeholder*
Khurshud village (Salyan) administrative representative	*Project Site Stakeholder*
Chukhanli village (Salyan) administrative representative	*Project Site Stakeholder*
Abadkand village (Salyan) administrative representative	*Project Site Stakeholder*
Khalaj village (Salyan) administrative representative	*Project Site Stakeholder*
Shakarli village (Salyan) administrative representative	*Project Site Stakeholder*
Yenikand village (Salyan) administrative representative	*Project Site Stakeholder*
Goylar village (Aghsu) administrative representative	*Project Site Stakeholder*
Langabiz village (Aghsu) administrative representative	*Project Site Stakeholder*
Bico village (Aghsu) administrative representative	*Project Site Stakeholder*
Garagoyunlu village (Aghsu) administrative	*Project Site Stakeholder*

representative	
Gubakhalilli village (İsmayilli) administrative representative	*Project Site Stakeholder*
Garamaryam village (Goychay) administrative representative	*Project Site Stakeholder*
Garabaggal village (Goychay) administrative representative	*Project Site Stakeholder*
Mirzahuseynli village (Goychay) administrative representative	*Project Site Stakeholder*
Arak village (Goychay) administrative representative	*Project Site Stakeholder*
Hushun village (Goychay) administrative representative	*Project Site Stakeholder*
Yukhari Aghjayazi village (Agdash) administrative representative	*Project Site Stakeholder*
Goshagovag village (Aghdash) administrative representative	*Project Site Stakeholder*
Arabojagi village (Aghdash) administrative representative	*Project Site Stakeholder*
Arash village (Yevlakh) administrative representative	*Project Site Stakeholder*
Aksham village (Yevlakh) administrative representative	*Project Site Stakeholder*
Gulovsha village (Yevlakh) administrative representative	*Project Site Stakeholder*
Havarli village (Yevlakh) administrative representative	*Project Site Stakeholder*
Hajiselli village (Yevlakh) administrative representative	*Project Site Stakeholder*
Salahli village (Yevlakh) administrative representative	*Project Site Stakeholder*
Huruushagi village (Yevlakh) administrative representative	*Project Site Stakeholder*
Tanrigulular village (Yevlakh) administrative representative	*Project Site Stakeholder*
Boshchali village (Yevlakh) administrative representative	*Project Site Stakeholder*
Businesses located in the project area who may be positively or negatively affected by the project	*Project Site Stakeholder*
Other Interested Parties for the Project	
Executive power representative of the Hajigabul region	*Governmental authorities at local level*
Executive power representative of the Bilasuvar region	*Governmental authorities at local level*

Executive power representative of the Neftchala rayon region	*Governmental authorities at local level*
Executive power representative of the Salyan rayon region	*Governmental authorities at local level*
Executive power representative of the Aghsu region	*Governmental authorities at local level*
Executive power representative of the Yevlakh region	*Governmental authorities at local level*
Executive power representative of the Mingachevir city	*Governmental authorities at local level*
Executive power representative of the Aghdash rayon (region)	*Governmental authorities at local level*
Executive power representative of the Goychay region	*Governmental authorities at local level*
Executive power representative of the Gobustan region	*Governmental authorities at local level*
Executive power representative of the Absheron region	*Governmental authorities at local level*
Executive power representative of the Garadagh region	*Governmental authorities at local level*
Ministry of Energy	*Governmental authorities at local level*
Azerbaijan Railways JSC	*Governmental authorities at local level*
Health providers	*Governmental authorities at local level*
School representatives	*Governmental authorities at local level*
SEEA of Ministry of Ecology and Natural Resources	*Governmental authorities at national level*
Ministry of Digital Development and Transport	*Governmental authorities at national level*
Ministry of Culture	*Governmental authorities at national level*
State Tourism Agency of the Republic of Azerbaijan	*Governmental authorities at national level*
Center of Hygiene and Epidemiology	*Governmental authorities at local level*
Masdar Azerbaijan	*Private sector representatives at local level*
AZERENERJI personnel	*Project Personnel*
NGOs, Trade Unions and etc	*NGO*
Media representatives	*Media*
Project-Affected Parties for Component 2 & 3	
AZERENERJI personnel	*Project Personnel*
Consulting companies	*Project Personnel*
Other Interested Parties for Component 2 & 3	
Ministry of Energy	*Governmental authorities at local level*
Ministry of Emergency Cases	*Governmental authorities at local level*

ANNEX B. Terms of Reference for ESIA

ANNEX C. COMMUNICATIONS WITH STAKEHOLDERS

Letter sent to State Ecological Expertise Agency on requesting for a meeting to discussing scope of ESIA

AZƏRBAYCAN RESPUBLİKASI
«AZƏRENERJİ» AÇIQ SƏHMDAR CƏMİYYƏTİ

AZ 1005, Bakı şəhəri, Akademik Əbdülkərim Əlizadə küçəsi 10
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Web: www.azerenerji.gov.az

« 10 » May 2024 il № 139/2-1420/9/2024

Azərbaycan Respublikasının
Ekologiya və Təbii Sərvətlər Nazirliyi
Dövlət Ekoloji Ekspertiza Agentliyinin
İdarə Heyətinin sədri

cənab Mirsalam Qənbərova

Hörmətli Mirsalam müəllim,

Bildiyiniz kimi, **Möhtərəm cənab Prezidentin** apardığı uğurlu beynəlxalq siyasət əsasında iqlim dəyişikliyi üzrə mötəbər COP29 tədbirinin ölkəmizdə keçirilməsinə qərar verilmiş və **cənab Prezident tərəfindən** 2024-cü il "Yaşıl Dünya naminə həmrəylik ili" elan edilmişdir. "Azərenerji" ASC tərəfindən bu tədbirlərlə əlaqədar yaşıl enerjiyə sürətli keçid istiqamətində zəruri addımlar atılır.

Energetika naziri cənab Pərviz Şahbazov "Masdar" şirkətinin tikəcəyi cəmi gücü 1000 MVt olan BOEM əsaslı 3 elektrik stansiyasının (445 MVt "Biləsuvar" GES, 315 MVt "Bankə" GES və 240 MVt "Qobustan" KES) enerji sisteminə təhlükəsiz inteqrasiyasını təmin etmək məqsədilə Dünya Bankının rəhbərliyi ilə müzakirələr apararaq, bu layihələr üçün kredit vəsaitinin cəlb olunmasını razılaşdırmışdır.

Dünya Bankının maliyyə dəstəyi ilə həyata keçirilməsi planlaşdırılan "Bərpa olunan enerji mənbələrinin şəbəkəyə inteqrasiyası" layihəsinin (AZURE layihəsi) icrası Azərenerji ASC-yə tapşırılmaqla layihə çərçivəsində tələb olunan işlərin və xidmətlərin satınalınması üçün Dünya Bankının siyasət və qaydalarına uyğun tender keçirilməsi məqsədilə hazırlıq işlərinə başlamaq göstərişi verilmişdir.

Məlumat üçün bildiririk ki, Energetika nazirliyi və Dünya Bankı ilə razılaşdırılmış iş həcmi əsasında 1000 MVt BOEM layihələrinin enerjisistemə inteqrasiyası üçün 500/330 kV-luq "Nəvahi" yarımstansiyasının, 500 kV-luq birdövrəli "Nəvahi-Abşeron" (65 km), 500 kV-luq "Nəvahi-Az İES" (235 km), 330 kV-luq birdövrəli "Nəvahi-Mingəçevir SES" (220 km), 330 kV-luq birdövrəli "Nəvahi-Ələt AİZ" (20 km), 330 kV-luq ikidövrəli "Bankə GES – Nəvahi YS" (80 km), 330 kV-luq ikidövrəli "Biləsuvar GES – Nəvahi YS" (90 km), 330 kV-luq birdövrəli "Qobustan KES – Nəvahi YS" (60 km), 330 kV birdövrəli "Qobustan KES – Qobu ES" (20 km) EVX-lərin tikintisi, eləcə də 500/330/220 kV-luq "Abşeron" YS-da və "Qobu" ES-də 330 kV-luq tərəfdə genişlənmə işlərinin həyata keçirilməsi planlaşdırılır.

Bildirmək istərdik ki, Bank daxili prosedurlara əsasən bütövlükdə layihə üçün Ekoloji və Sosial Təsirlərin Qiymətləndirilməsi aparılmalı və müvafiq hesabat hazırlanaraq Banka təqdim edilməlidir. Azərenerji ASC tərəfindən sözügedən ekoloji və sosial qiymətləndirmənin aparılması üçün texniki tapşırıq hazırlanmış və Bankla razılaşdırılmışdır. Bildiyiniz kimi, bu tip irimiqyaslı layihələrin icrasına başlamazdan əvvəl maraqlı tərəflərlə görüşlərin keçirilməsi və müzakirələr aparılması, onların tövsiyə və təkliflərinin alınması mühüm əhəmiyyət kəsb edir. Bu məqsədlə Azərenerji ASC nəzdində yaradılmış Layihə İcra Qrupunun əməkdaşları rəhbərlik etdiyiniz qurumun aidiyyəti məsul şəxsləri ilə görüşərək layihə çərçivəsində aparılacaq ekoloji və sosial qiymətləndirmə üçün hazırlanmış texniki tapşırığı və hazırlanacaq ƏMSTQ hesabatında əhatə olunması nəzərdə tutulan məsələləri müzakirə etmək niyyətindədir.

Hörmətli Mirsalam müəllim,

Diqqətinizə çatdırmaq istərdim ki, Masdar şirkətinin icra qrafikinə əsasən sözügedən BOEM layihələri 2026-cı ilin I rübündə enerji istehsalına başlayacaqdır və Azərenerji ASC-nin qarşısında həmin tarixədək yuxarıda qeyd olunan ötürücü infrastruktur obyektlərini vaxtında tikib istismara vermək kimi mühüm vəzifə dayanır. Vaxt məhdudiyyətini nəzərə alaraq rəhbərlik etdiyiniz qurumun nümayəndələri və Layihə İcra Qrupunun əməkdaşları ilə bu görüşün ən qısa vaxtda keçirilməsi üçün aidiyyəti üzrə göstəriş verməyinizi xahiş edirik.

Qoşma: ƏMSTQ üçün Texniki Tapşırıq (15 vərəq)

Hörmətlə,

Ziyəddin Quliyev

"Azərenerji" ASC-nin
vitse-prezidenti

Letter sent to Executive Power Office Hajigabul Region on requesting assistance by region's officials for coordination of the proposed alignment of incoming/outgoing lines to/from 500/330 Kv Navahi SS and response of the mayor with no objection

AZƏRBAYCAN RESPUBLİKASI

HACIQABUL RAYONU İCRA HAKİMİYYƏTİ BAŞÇISININ APARATI

AZ 2400 Hacıqabul şəhəri, İ.Qayıbov küçəsi, 7 tel: /021/ 204-32-33
e-Poçt: mail@haciqabul-ih.gov.az faks: /021/ 204-12-40

№ 5-48/a-VIII-10-214/2024 « 03 » aprel 2024-cü il

"Azərenerji" ASC-nin
vitse-prezidenti
cənab Ziyəddin Quliyevə

Hörmətli Ziyəddin müəllim,

"Azərenerji" ASC-nin 4 mart 2024-cü il 13-9/2-655/17/2024, 13-9/2-662/17/2024, 13-9/2-664/17/2024, 14 mart 2024-cü il 13-9/2-813/17/2024, 13-9/2-814/17/2024, 13-9/2-823/17/2024 və 13-9/2-832/17/2024 nömrəli məktublarına əsasən Hacıqabul rayonunun Nəvai qəsəbəsində tikiləcək **500/330/10 kV-luq "Nəvai" yarımstansiyasının** enerjisistemə inteqrasiyası və dayanıqlığının möhkəmləndirilməsi, eyni zamanda Biləsuvar GES və Bankə GES-in enerjisistemə inteqrasiyası məqsədilə çəkiləcək 500 kV-luq bir dövrəli "Azərbaycan İES- Nəvai YS", 500 kV -luq iki dövrəli "Abşeron YS- Nəvai YS", 330 kV -luq bir dövrəli "Mingəçevir SES- Nəvai YS", 330 kV -luq iki dövrəli "Biləsuvar GES-Nəvai YS", 330 kV -luq iki dövrəli "Bankə GES-Nəvai YS", 330 kV-luq bir dövrəli "Ələt AİZ-Nəvai YS", 330 kV -luq bir dövrəli "Qobustan KES-Nəvai YS" HX-lərinin **Hacıqabul rayonunun inzibati ərazisinə düşən hissəsinin** trassası (təqdim edilən dönge nöqtələrinin koordinatları üzrə) dövlət, bələdiyyə, icarə və xüsusi mülkiyyətdə olan torpaq sahələrindən keçir.

HX-lərinin trassalarının Hacıqabul rayonunun inzibati ərazisinə düşən hissəsinin dövlət mülkiyyəti istisna olmaqla, digər marağına toxunulan icra hakimiyyəti orqanları, o cümlədən, bələdiyyə, mülkiyyətçilər və torpaq istifadəçiləri ilə razılaşdırmaq şərti ilə ayrılmasına etiraz etmirik.

Hörmətlə,

İcra Hakimiyyəti Başçısının
birinci müavini: Saleh Ələsgərov

"AZƏRENERJİ" ASC
ÜMUMİ ŞÖBƏ
№ 02 DAXİL OLMA № 13-9/1-334/2024
«03» 04 2024

Letter sent to Executive Power Office Bilasuvar Region on requesting assistance by region's officials for coordination of the proposed alignment of incoming/outgoing lines to/from 500/330 Kv Navahi SS and response of the mayor with no objection

AZƏRBAYCAN RESPUBLİKASI BİLƏSUVAR RAYON İCRA HAKİMİYYƏTİ

AZ1300, Biləsuvar şəhəri, M.A.İbrahimov küçəsi 50, Tel.: (025) 295-01-83 Faks: (025) 295-01-83 Elektron poçt: mail@bilesuvar-ih.gov.az

1 aprel 2024-cü il **5-39/2-214/2024**

Azərbaycan Respublikası "Azərenerji" Açıq Səhmdar Cəmiyyətinin vitse-prezidenti cənab Ziyəddin Quliyevə

(Sizin 04 mart 2024-cü il tarixli 13-9/2-678/17/2024 nömrəli məktubunuza cavab)

Hörmətli Ziyəddin müəllim,

Biləsuvar rayonunun inzibati ərazisində tikintisi planlaşdırılmış "Biləsuvar Günəş Elektrik Stansiyası"nın enerji sisteminə inteqrasiyası məqsədilə çəkiləcək 330 kV-luq "Biləsuvar GES-Nəvai YS" HX-nin Biləsuvar rayonunun inzibati ərazisinə düşən hissəsinin trassasına mütəxəssislərin iştirakı ilə yerində baxış keçirilmiş və sözügedən ərazidə heyvandarlıq fəaliyyəti ilə məşğul olan fermerlərlə söhbətlər aparılmışdır.

Bildiririk ki, 330 kV-luq "Biləsuvar GES-Nəvai YS" HX-nin Biləsuvar rayonunun inzibati ərazisinə düşən hissənin trassasının ayrılmasına etiraz etmirik.

Hörmətlə,

Faiq Qürbətov

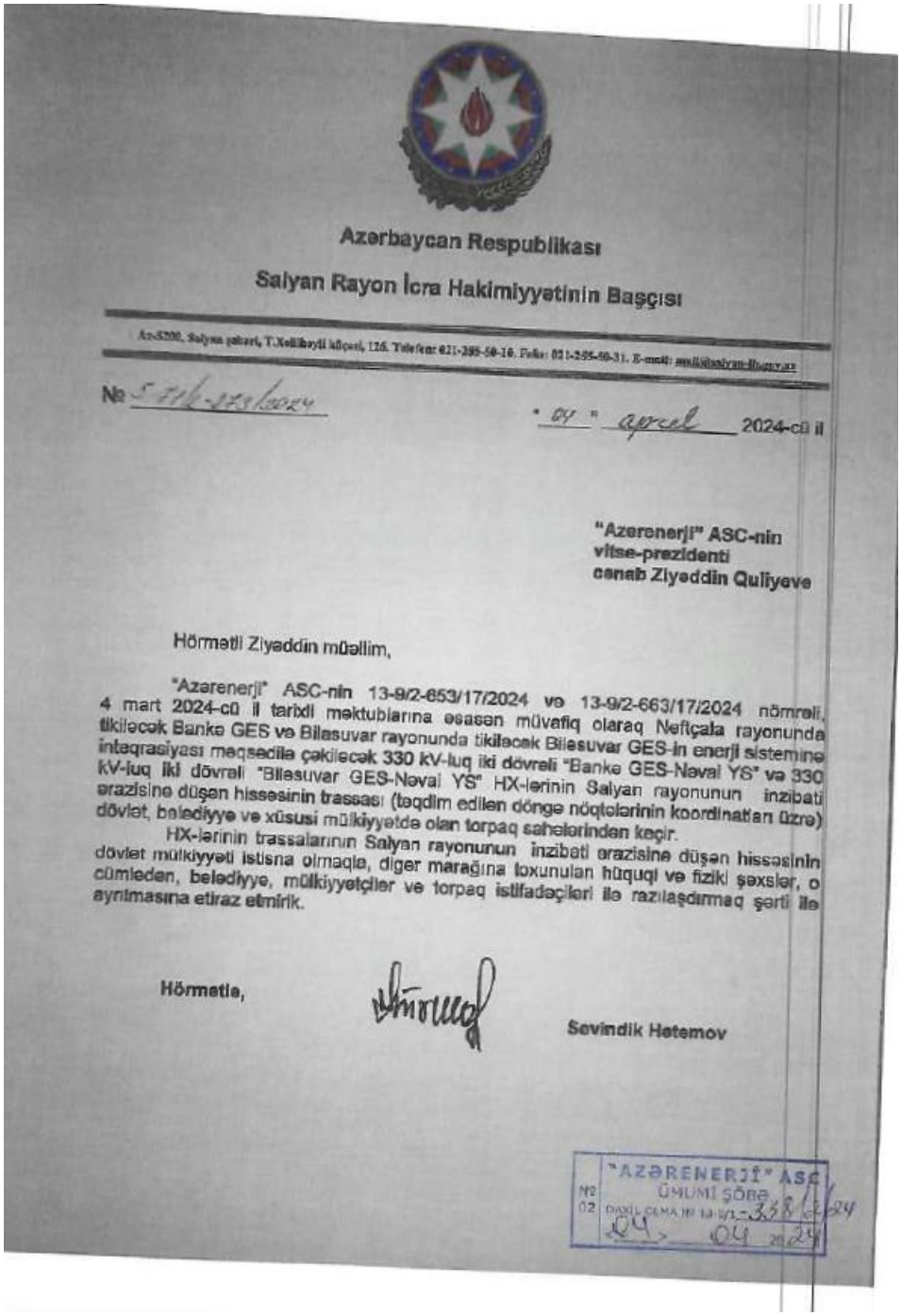
"AZƏRENERJİ" ASC
ÜMUMİ ŞÖBƏ
№ 02
DAXİL OLMA № 13-9/1-338 [illegible] 2 24
«03» 04 2024 il

Elektron Sənəd Dövriyyəsi Sistemi
İmzalayan şəxs: Faiq Qurbətov / Rəhbərlik / İcra başçısı

Qeyd: «Elektron imza və elektron sənəd haqqında» Azərbaycan Respublikası Qanununun 3-cü maddəsinə əsasən elektron imza əl imzası ilə bərabər hüquqi qüvvəyə malikdir. Elektron imza şəkli kağız daşıyıcı üzərindəki möhürlə təsdiq edilmiş əl imzasına bərabər tutulur.

Sənədin elektron yüklənmə ünvanı:
[illegible]

Letter sent to Executive Power Office Salyan Region on requesting assistance by region's officials for coordination of the proposed alignment of incoming/outgoing lines to/from 500/330 Kv Navahi SS and response of the mayor with no objection



Azərbaycan Respublikası

Salyan Rayon İcra Hakimiyyətinin Başçısı

Az-5200, Salyan şəhəri, T.Xəlilbəyli küçəsi, 126. Telefon: 021-395-50-10. Faks: 021-395-50-31. E-mail: salyan-ih@mail.ru

№ 5-116-473/2024 "04" aprel 2024-cü il

"Azərenerji" ASC-nin
vitse-prezidenti
cənab Ziyəddin Quliyevə

Hörmətli Ziyəddin müəllim,

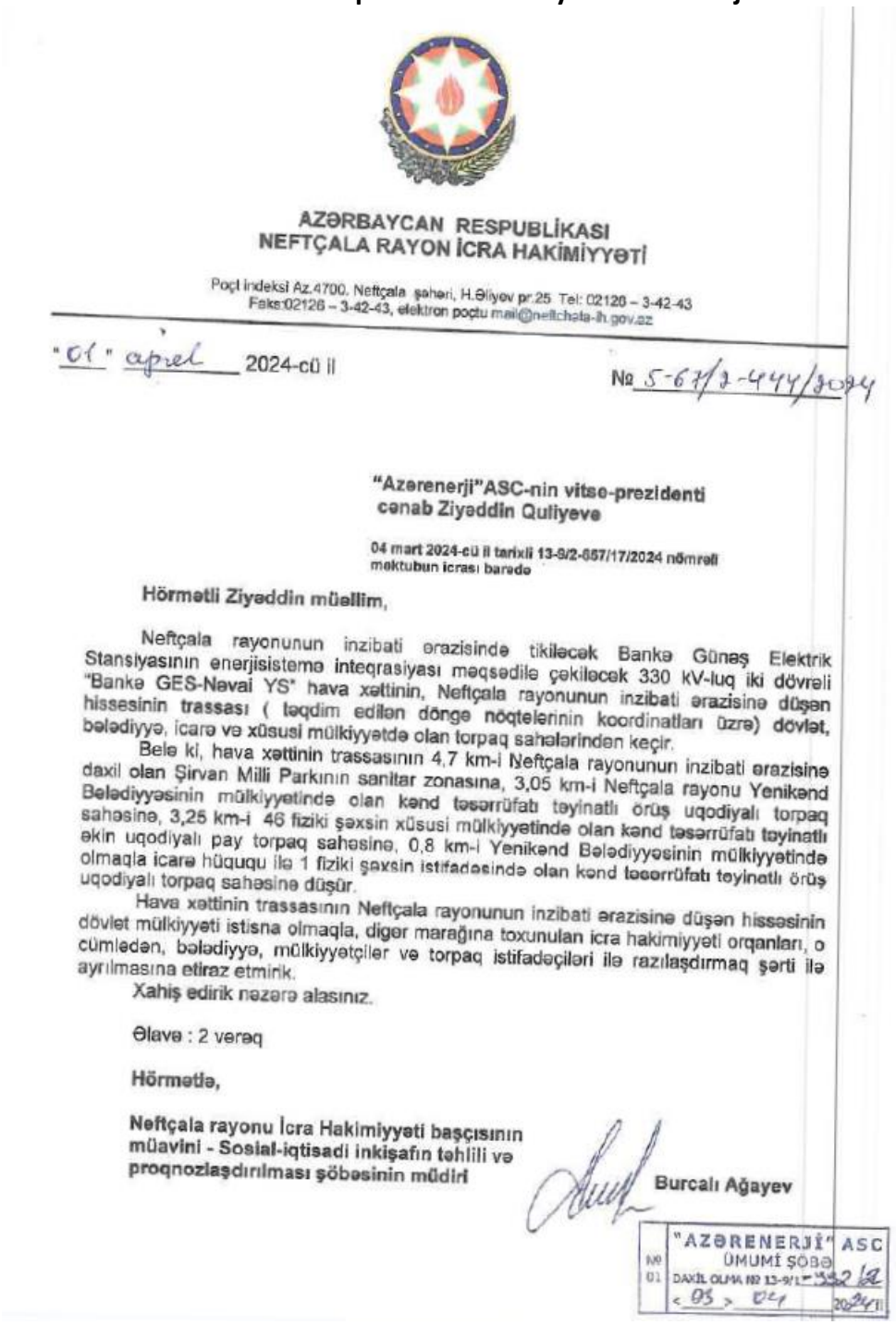
"Azərenerji" ASC-nin 13-9/2-653/17/2024 və 13-9/2-663/17/2024 nömrəli, 4 mart 2024-cü il tarixli məktublarına əsasən müvafiq olaraq Neftçala rayonunda tikiləcək Banka GES və Bilasuvar rayonunda tikiləcək Bilasuvar GES-in enerji sisteminə inteqrasiyası məqsədilə çəkiləcək 330 kV-luq iki dövrəli "Banka GES-Nəvai YS" və 330 kV-luq iki dövrəli "Bilasuvar GES-Nəvai YS" HX-lərinin Salyan rayonunun inzibati ərazisinə düşən hissəsinin trassası (təqdim edilən dönüş nöqtələrinin koordinatları üzrə) dövlət, bələdiyyə və xüsusi mülkiyyətdə olan torpaq sahələrindən keçir.

HX-lərinin trassalarının Salyan rayonunun inzibati ərazisinə düşən hissəsinin dövlət mülkiyyəti istisna olmaqla, digər marağına toxunulan hüquqi və fiziki şəxslər, o cümlədən, bələdiyyə, mülkiyyətçilər və torpaq istifadəçiləri ilə razılaşdırmaq şərti ilə ayrılmasına etiraz etmirik.

Hörmətlə, Sevindik Hətəmov

№ 02 "AZƏRENERJİ" ASC ÜMUMİ ŞÖBƏ DAXİL OLMA İD 13-1/1-338 04.04.2024

Letter sent to Executive Power Office Neftchala Region on requesting assistance by region's officials for coordination of the proposed alignment of incoming/outgoing lines to/from 500/330 Kv Navahi SS and response of the mayor with no objection



AZƏRBAYCAN RESPUBLİKASI
NEFTÇALA RAYON İCRA HAKİMİYYƏTİ

Poçt indeksi Az.4700, Neftçala şəhəri, H.Əliyev pr.25 Tel: 02126 – 3-42-43
Faks:02126 – 3-42-43, elektron poçtu mail@neftchala-ih.gov.az

"01" aprel 2024-cü il № 5-67/2-444/2024

"Azərenerji"ASC-nin vitse-prezidenti
cənab Ziyəddin Quliyevə

04 mart 2024-cü il tarixli 13-9/2-657/17/2024 nömrəli
məktubun icrası barədə

Hörmətli Ziyəddin müəllim,

Neftçala rayonunun inzibati ərazisində tikiləcək Bankə Günəş Elektrik Stansiyasının enerjisistemə inteqrasiyası məqsədilə çəkiləcək 330 kV-luq iki dövrəli "Bankə GES-Nəvai YS" hava xəttinin, Neftçala rayonunun inzibati ərazisinə düşən hissəsinin trassası (təqdim edilən dönüş nöqtələrinin koordinatları üzrə) dövlət, bələdiyyə, icarə və xüsusi mülkiyyətdə olan torpaq sahələrindən keçir.

Belə ki, hava xəttinin trassasının 4,7 km-i Neftçala rayonunun inzibati ərazisinə daxil olan Şirvan Milli Parkının sanitar zonasına, 3,05 km-i Neftçala rayonu Yenikənd Bələdiyyəsinin mülkiyyətində olan kənd təsərrüfatı təyinatlı örüş uqodiyalı torpaq sahəsinə, 3,25 km-i 46 fiziki şəxsin xüsusi mülkiyyətində olan kənd təsərrüfatı təyinatlı əkin uqodiyalı pay torpaq sahəsinə, 0,8 km-i Yenikənd Bələdiyyəsinin mülkiyyətində olmaqla icarə hüququ ilə 1 fiziki şəxsin istifadəsində olan kənd təsərrüfatı təyinatlı örüş uqodiyalı torpaq sahəsinə düşür.

Hava xəttinin trassasının Neftçala rayonunun inzibati ərazisinə düşən hissəsinin dövlət mülkiyyəti istisna olmaqla, digər marağına toxunulan icra hakimiyyəti orqanları, o cümlədən, bələdiyyə, mülkiyyətçilər və torpaq istifadəçiləri ilə razılaşdırmaq şərti ilə ayrılmasına etiraz etmirik.

Xahiş edirik nəzərə alasınız.

Əlavə : 2 vərəq

Hörmətlə,

Neftçala rayonu İcra Hakimiyyəti başçısının
müavini - Sosial-iqtisadi inkişafın təhlili və
proqnozlaşdırılması şöbəsinin müdiri Burcalı Ağayev

№ 01 "AZƏRENERJİ" ASC ÜMUMİ ŞÖBƏ DAXİL OLMA № 13-9/2-332/24 <03> 04 2024-cü il

Letter sent to Executive Power Office Neftchala Region on requesting assistance by region's officials for coordination of the proposed alignment of incoming/outgoing lines to/from 500/330 Kv Navahi SS and response of the mayor with no objection

AZƏRBAYCAN RESPUBLİKASI
YEVLAX ŞƏHƏR İCRA HAKİMİYYƏTİ BAŞÇISININ
APARATI

AZ-6600, Yevlax şəhəri,
Azərbaycan küçəsi 3.

Tel: (022)336-01-00 faks: (022)336-01-01
E-mail: mail@yevlax-ih.gov.az

№ 5-9/2-606/2024 «19» aprel 2024-cü il

Azərbaycan Respublikası "Azərenerji" Açıq Səhmdar Cəmiyyətinin Vitse-prezidenti cənab Ziyəddin Quliyevə

Hörmətli Ziyəddin müəllim,

14 mart 2024-cü il tarixli 13-9/2-810/17/2024 və 13-9/2-819/17/2024 nömrəli məktublarınıza əlavə edilmiş 330 kV-luq birdövrəli "Mingəçevir SES-Nəvai YS" və 500 kV-luq birdövrəli "Azərbaycan İES-Nəvai YS" hava xəttlərinin Yevlax rayonunun inzibati ərazisinə düşən hissəsinin trassası razılaşdırılaraq Sizə göndərilir.

Qoşma: 330 kV-luq birdövrəli "Mingəçevir SES-Nəvai YS" trassası-1vərəq
500 kV-luq birdövrəli "Azərbaycan İES-Nəvai YS" trassası-1vərəq

Yevlax Şəhər İcra Hakimiyyəti
Başçısının birinci müavini **Xaliq Əliyev**

J. Baxtiyev
Y. Qeyibov

"AZƏRENERJİ" ASC
№ 02 ÜMUMİ ŞÖBƏ
DAXİL OLMA № 13-9/1-385/2024
«22» 04 2024-cü il

Letter to State Service of Cultural Heritage Conservation for submission of information regarding locally and internationally protected historical-cultual monuments in project regions

AZƏRBAYCAN RESPUBLİKASI
«AZƏRENERJİ» AÇIQ SƏHMDAR CƏMİYYƏTİ

AZ 1005, Bakı şəhəri, Akademik Əbdülkərim Əlizadə küçəsi 10
Tel: (+99412) 490-09-22
Faks: (+99412) 598-55-23
azerenerji@azerenerji.gov.az
Web: www.azerenerji.gov.az

«27» 06 2024-il № 13-9/2-1956/9/2024

Azərbaycan Respublikasının
Mədəniyyət Nazirliyi yanında
Mədəni İrsin Qorunması, İnkişafı və
Bərpası üzrə Dövlət Xidmətinin
rəisi

Səbinə xanım Hacıyevaya

Hörmətli Səbinə xanım,

Bildiyiniz kimi, **Möhtərəm cənab Prezidentin** apardığı uğurlu beynəlxalq siyasət əsasında iqlim dəyişikliyi üzrə mötəbər COP29 tədbirinin ölkəmizdə keçirilməsinə qərar verilmiş və **cənab Prezident tərəfindən** 2024-cü il "Yaşıl Dünya naminə həmrəylik ili" elan edilmişdir. "Azərenerji" ASC tərəfindən bu tədbirlərlə əlaqədar yaşıl enerjiyə sürətli keçid istiqamətində zəruri addımlar atılır.

Bu istiqamətdə Azərbaycan hökumətinin və Dünya Bankının maliyyə dəstəyi ilə həyata keçirilməsi planlaşdırılan "Bərpa olunan enerji mənbələrinin şəbəkəyə inteqrasiyası" layihəsinin (AZURE layihəsi) icrası Azərenerji ASC-yə tapşırılmaqla layihə çərçivəsində tələb olunan işlərin və xidmətlərin satınalınması üçün Dünya Bankının siyasət və qaydalarına uyğun tender keçirilməsi məqsədilə hazırlıq işlərinə başlamaq göstərişi verilmişdir.

Məlumat üçün bildirirk ki, BOEM layihələrinin enerjisistemə inteqrasiyası üçün

- 500/330 kV-luq "Nəvahi" yarımstansiyasının,
- 500 kV-luq birdövrəli "Nəvahi-Abşeron" (65 km), 500 kV-luq "Nəvahi-Az İES" (235 km),
- 330 kV-luq birdövrəli "Nəvahi-Mingəçevir SES" (220 km), 330 kV-luq birdövrəli "Nəvahi-Ələt AİZ" (20 km),
- 330 kV-luq ikidövrəli "Bankə GES – Nəvahi YS" (80 km),
- 330 kV-luq ikidövrəli "Biləsuvar GES – Nəvahi YS" (90 km),
- 330 kV-luq birdövrəli "Qobustan KES – Nəvahi YS" (60 km),
- 330 kV birdövrəli "Qobustan KES – Qobu ES" (20 km) EVX-lərin tikintisi işlərinin həyata keçirilməsi planlaşdırılır.

Bildirmək istərdik ki, Bank daxili prosedurlara əsasən bütövlükdə layihə üçün Ekoloji və Sosial Təsirlərin Qiymətləndirilməsi (ƏMSTQ) aparılmalı və layihənin əhatə etdiyi ərazilərdə mövcud tarixi-mədəni irs abidələri öyrənilərək müvafiq hesabata daxil edilməklə Banka təqdim edilməlidir.

"Azərenerji" ASC tərəfindən sözügedən ƏMSTQ hesabatının hazırlanması istiqamətində işlərə başlanılmış və layihələndirilən yüksək gərginlikli yarımstansiya və elektrik verilişi xətlərinin (EVX) trasları boyunca tarixi-mədəni irs abidələrinin mövcudluğu öyrənilmişdir.

Məlumat üçün bildirirk ki, bu tip irimiqyaslı layihələrin icrasına başlamazdan əvvəl maraqlı tərəflərlə müzakirələr aparılması, onların təvsiyə və təkliflərinin nəzərə alınması mühüm əhəmiyyət kəsb edir.

Hörmətli Səbinə xanım,

Yuxarıda qeyd olunanlara əsasən layihələndirmə işlərində nəzərə alınması və layihənin icra mərhələsində lazımi mühafizə tədbirlərinin görülməsi məqsədilə məktuba əlavədə qeyd olunan EVX-lərin keçdiyi rayonlar və kəndlərdə mövcud olan yerli və beynəlxalq əhəmiyyətli tarixi-mədəni irs abidələri barədə məlumatların mümkün ən qısa zamanda "Azərenerji ASC"-nin Layihə İcra Qrupuna (direktor Yusif Qayıbov, yusif.qayibov@azerenerji.gov.az, telefon 0502786595) göndərilməsi üçün göstəriş verməyinizi Sizdən xahiş edirik.

Qoşma: Əlavə 1 (EVX-lərin trasları üzrə rayon və kəndlərin siyahısı)

Hörmətlə,

Ziyəddin Quliyev

"Azərenerji" ASC-nin
vitse-prezidenti

Əlavə 1

Hacıqabul rayonunun Nəvahi qəsəbəsində tikiləcək 500/330/10 kV-luq "Nəvahi" yarımstansiyasının enerjisistemə inteqrasiyası məqsədilə çəkilməsi nəzərdə tutulan EVX-lərin trasları barədə məlumat

1) 330 kV birdövrəli Biləsuvar-Nəvahi EVX (90 km)

S/s	Rayon	Kəndlər
1	Salyan	Xurşud kəndi
		Aşağı Noxudlu
		Yuxarı Noxudlu
		Çuxanlı kəndi
		Abadkənd
		Xələc
		Yenikənd
		Şəkərli
		Xələc bələdiyyəsi
		Salmanlı kəndi
2	Hacıqabul	Qızılburun kəndi
		Nəvahi kəndi
3	Biləsuvar	Biləsuvar rayonu

2) 500 kV birdövrəli Nəvahi-Abşeron EVX (65 km)

S/s	Rayon	Kəndlər
1	Hacıqabul	Nəvahi kəndi
2	Abşeron	Burunsuz qış otlağı 47№-li qış otlağı

3) 330 kV ikidövrəli Bankə-Nəvahi EVX (80 km)

S/s	Rayon	Kəndlər
1	Hacıqabul	Qızılburun kəndi
		Nəvahi kəndi
2	Neftçala	Şirvanlı kəndi
		Bankə qəsəbəsi

4) 330 kV-luq bir dövrəli "Ələt AİZ YS-Nəvai YS" EVX (20 km)

S/s	Rayon	Kəndlər
1	Hacıqabul	Qızılburun kəndi
		Nəvahi kəndi
2	Qaradağ	Qaradağ rayonu
3	Abşeron	Atbulaq

5) 330 kV-luq birdövrəli "Mingəçevir SES-Nəvahi YS" EVX (220 km)

S/s	Rayon	Kəndlər
1	Hacıqabul	Nəvahi kəndi
		Rəncbər kəndi
		Pirsaat kəndi
2	Ağsu	Ləngəbiz
		Göylər
		Ülgüc kəndi
		Göylər kəndi
		Qaraqoyunlu
		Bico
3	İsmayilli	Qubaxəlilli kəndi
4	Göyçay	Qaraməryəm kəndi
		Qarabaqqal
		Mirzəhüseynli kəndi
		Araq
		Hüşün
5	Ağdaş	Yuxarı Ağcayazı kəndi
		Qoşaqovaq
		Ərəbocağı kəndi
6	Yevlax	Ərəş
		Axşam kəndi
		Gülövşə kəndi
		Havarlı kəndi
		Hacıselli kəndi
		Salahlı kəndi
		Hürüuşağı kəndi
		Tanrıqulular
		Boşçalı kəndi
7	Mingəçevir	Mingəçevir şəhəri

6) 330 kV-luq birdövrəli "Qobustan KES – Nəvahi YS" EVX (60 km)

S/s	Rayon	Kəndlər
1	Hacıqabul	Nəvahi kəndi
2	Qobustan	Qobustan rayonu

7) 330 kV-luq birdövrəli "Qobustan KES-Qobu ES" hava EVX (20 km)

S/s	Rayon	Kəndlər
1	Abşeron	Qobu kəndi
2	Qobustan	Qobustan rayonu

EVX-lərin Google Xəritə üzərində təsviri

Yaşıl - 500 kV Nəvahi-Az. İES 235 km
Açıq göy - 330 kV Nəvahi-Mingəçevir SES 220 km
Açıq bənövşəyi - 330 kV Bilasuvar GES-Nəvahi YS 90 km
Tünd bənövşəyi – 330 kV Bankə GES – Nəvahi YS 80 km
Qırmızı – 500 kV Nəvahi YS – Abşeron YS 65 km
Tünd mavi – Nəvahi YS – Qobustan KES
Mavi – 330 kV Nəvahi YS – Ələt AİZ YS 20 km
Mavi – 330 kV Qobustan KES – Qobu İES 20 km

Annex D. List of important cultural heritage assets

AZƏRBAYCAN RESPUBLİKASININ MƏDƏNİYYƏT NAZİRLİYİ YANINDA MƏDƏNİ İRSİN QORUNMASI, İNKİŞAFI VƏ BƏRPASI ÜZRƏ DÖVLƏT XİDMƏTİ

AZ 1000, Bakı şəhəri,Hökumət evi,
Ü.Hacıbəyli küçəsi,84

Tel.: (+99412) 565 01 47
Elektron poçt:info@heritage.gov.az

02 avqust 2024-cü il **3-24-1/2-01-826/2024**

"Azərenerji" Açıq Səhmdar Cəmiyyətinin
vitse prezidenti
cənab Ziyəddin Quliyevə

27 iyun 2024-cü il tarixli
13-9/2-1956/9/2024 nömrəli məktuba dair

Hörmətli Ziyəddin müəllim,

"Bərpa olunan enerji mənbələrinin şəbəkəyə inteqrasiyası" layihəsinin icrası ilə əlaqədar elektrik verilişi xətlərinin trasları boyunca yerləşən daşınmaz tarix və mədəniyyət abidələri barədə məlumatları təqdim edirik (surəti əlavə olunur).

Eyni zamanda bildiririk ki, "Tarix və mədəniyyət abidələrinin qorunması haqqında" Azərbaycan Respublikası Qanununun 14-cü maddəsinə əsasən, magistral mühəndis kommunikasiyalarının (neft, qaz kəmərlərinin və s.) çəkilişi və digər inşaat işləri zamanı, hektardan çox ərazini əhatə edən sahələrdə inşaat işləri aparılarkən texniki-iqtisadi əsaslandırma mərhələsində bu işləri həyata keçirən təşkilat tərəfindən görüləcək işlər barədə müvafiq icra hakimiyyəti orqanının müəyyən etdiyi orqana (quruma) və müvafiq icra hakimiyyəti orqanının müəyyən etdiyi elmi təşkilata müraciət edilməli və abidələrin ilkin axtarış işlərinin aparılması üçün vəsait ayrılmalıdır.

Həmin zonada arxeoloji abidə aşkar olunarsa, müvafiq icra hakimiyyəti orqanının müəyyən etdiyi orqanın (qurumun) icazəsi olmadan və lazımi elmi tədbirlər görülmədən inşaat və təsərrüfat işlərinin aparılmasına yol verilmir.

Qeyd olunan Qanunun 13-cü maddəsinə əsasən, inşaat və digər təsərrüfat işləri görülərkən abidə aşkar edilərsə, dərhal işlər dayandırılmalı, bu barədə müvafiq icra hakimiyyəti orqanının müəyyən etdiyi orqana (quruma) və müvafiq icra hakimiyyəti orqanının müəyyən etdiyi elmi təşkilata məlumat verilməli, həmin orqan (qurum) və elmi təşkilat tərəfindən iki ay müddətində bu Qanunla nəzərdə tutulmuş tədqiqatlar aparılmalı və digər tədbirlər görülməlidir. Bu halda inşaat və digər təsərrüfat işləri müvafiq icra hakimiyyəti orqanının müəyyən etdiyi elmi təşkilatın və mütəxəssislərin rəyi əsasında müvafiq icra hakimiyyəti orqanının müəyyən etdiyi orqanın (qurumun) icazəsi ilə davam etdirilə bilər.

"AZƏRENERJİ" ASC
ÜMUMİ ŞÖBƏ
№ 02
07 08

Nəzərə almağınızı xahiş edirik.

Qoşma: 4 vərəq.

Hörmətlə,

Rəis **Səbinə Hacıyeva**

List of historical and cultural monuments located along the alignments of overhead transmission lines (OHLs)					
No	***Name of monument***	***Inventory No:***	***Address of monuments***	***Coordinates of monument***	***Notes***
1	*Bath*	*4004*	*AbSheron region, Qobu settl.*	*40°24'43.20"N 49°43'7.10"E*	
2	*Shahargah*	*1708*	*Shamaxı region, Chol Goylar village*	*40°26'19.80"N 48°37'40.80"E*	
3	*"Shahargah" monument va kurgan*	*newly revealed*	*Shamaxı region, Chol Goylar village yaxınlığında*	*40°26'6.20"N 48°37'16.60"E*	
4	*Saxsılıtaxta yashayısh yeri*	*1710*	*Shamaxi region, Chol Goylar village*	*40°26'6.74"N 48°37'16.75"E*	
5	*Pirabağdad nekropolu*	*1711*	*Shamaxi region, Chol Goylar village*	*40°25'46.40"N 48°36'53.30"E*	
6	*"Nacaf "ilk orta asr yaShayıSh yeri*	*newly revealed*	*Shamaxı region, Chol Goylar village*	*40°24'6.30"N 48°38'54.90"E*	
7	*Old cemetery*	*1709*	*Shamaxı region, Chol-Goylar village*	*40°25'49.20"N 48°37'0.80"E*	
8	*Sofu Sadiq residential place and ovdan*	*6014*	*Shamaxı region, Chol-Goylar village*	*40°24'17.20"N 48°38'46.20"E*	

List of historical and cultural monuments located along the alignments of overhead transmission lines (OHLs)					
No	***Name of monument***	***Inventory No:***	***Address of monuments***	***Coordinates of monument***	***Notes***
9	*Residential place*	*6013*	*Shamaxı region, Chol-Goylar village*	*40°25'44.80"N 48°36'57.30"E*	
10	*Tapadibi residential place*	*6012*	*Shamaxı region, Chol-Goylar village*	*40°25'39.89"N 48°37'7.85"E*	
11	*Shahargah cemetery*	*1709*	*Shamaxı region, Chol-Goylar village*	*40°25'49.20"N 48°37'0.80"E*	
12	*Monument to turkish martyrs*	*newly revealed*	*Goyçay region, Bığır village*	*40°38'7.20"N 47°51'30.30"E*	
13	*Jar grave necropol*	*1073*	*Goyçay region, I arabcabirli village*	*40°39'3.30"N 47°42'7.60"E*	
14	*Cemetery*	*1074*	*Goyçay region, II arabcabirli village*	*40°39'6.40"N 47°42'20.80"E*	
15	*Memorial monument of our compatriots who died in the Great Patriotic War*	*5641*	*Goyçay region*	*40°39'52.20"N 47°44'31.60"E*	
16	*Cemetery*	*1076*	*Goyçay region, Qaramaryam villagenin yaxınlığında*	*40°36'2.60"N 48° 0'0.60"E*	
17	*Nargizava necropol*	*newly revealed*	*Ağsu region, Gagali village*	*40°31'28.54"N 48°30'21.29"E*	
18	*Shıxalibayli ditch*	*newly revealed*	*Ağsu region, Gagali village*	*40°31'41.50"N 48°29'6.20"E*	
19	*Medieval Aghsu town*	*808*	*Ağsu region, Ülgüc village*	*40°32'36.18"N 48°22'35.48"E*	
20	*Khurshud residence*	*5983*	*Salyan region XurShud village*	*39°37'9.51"N 48°55'1.98"E*	

List of historical and cultural monuments located along the alignments of overhead transmission lines (OHLs)					
No	***Name of monument***	***Inventory No:***	***Address of monuments***	***Coordinates of monument***	***Notes***
21	*Khurshud necropol*	*5984*	*Salyan region XurShud village*	*39°38'18.28"N 48°53'23.87"E*	
22	*Nokhudlu residence*	*1679*	*Salyan region Noxudlu village*	*39°39'8.22"N 48°56'25.79"E*	
23	*Qırxchıraq residence*	*5980*	*Salyan region Xalac villagenin canub-Sharqinda*	*39°31'7.82"N 49° 1'5.82"E*	
24	*Yuxarı Xalaj residence*	*5981*	*Salyan region Xalac village*	*39°44'13.35"N 49° 3'15.21"E*	
25	*Banka residence*	*1630*	*Neftçala region Banka settl.*	*39°24'23.22"N 49°14'57.87"E*	
26	*Administrative bldng*	*4936*	*Neftçala region Banka settl.*	*39°24'31.22"N 49°15'4.48"E*	
27	*Memorial monument of our compatriots who died in the Great Patriotic War*	*5677*	*Neftçala region Banka settl.*	*39°24'32.17"N 49°15'1.89"E*	
28	*Bridge*	*newly revealed*	*Hacıqabul region Qızılburun village*	*40° 00'13.2"N 49°12'44.00"E*	
29	*Hacı Hashim bath*	*newly revealed*	*Hacıqabul region Rancbar village*	*40° 5'43.32"N 49° 4'5.53"E*	
30	*Arash town place*	*newly revealed*	*Yevlax region, Arash village*	*40° 44'55.42"N 47°13'40.42"E*	
31	*Remnants of Arash castle*	*newly revealed*	*Yevlax region, Arash village*	*40° 44'55.42"N 47°13'40.42"E*	