

Sainshand – Tsagaan Suvarga Transmission Line Project

Environmental and Social Impact Assessment

DECEMBER 2025



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Environmental and Social Impact Assessment (ESIA)

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Document Ref.	30271256
Date	DECEMBER 2025

Version Control

Version	Date	Author	Checker	Reviewer	Approver	Changes
01	01 August 2025	AK	ET	KP	RB	
02	December 2025	AK	ET	KP	RB	Updated following EBRD review

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Appendices

Appendices – see stand-alone report.

Abbreviations

Abbreviation	Definition
AOI	Area of Influence
CBO	Community-Based Organisations
CES	Central Energy System
CHP	Combined Heat and Power
CITES	Convention on International Trade in Endangered Species of Fauna and Flora
CIEEM	Chartered Institute of Ecology and Environmental Management
CSO	Civil Society Organisations
DEIA	Detailed EIA
EMF	Electromagnetic fields
EBRD	European Bank for Reconstruction and Development
EIA	Environmental Impact Assessment
ESAP	Environmental and Social Action Plan
ESIA	Environmental and Social Impact Assessment
ESP	Environmental and Social Policy
E&S	Environmental and social
FAO	Food and Agriculture Organisation of the United Nations
FIDIC	International Federation of Consulting Engineer
GDP	Gross Domestic Product
GEIA	General EIA
GIP	Good International Practice
GW	Gigawatts
HHS	Household Surveys
IBA	Important Bird Area
ILO	International Labour Organisation
IUCN	International Union for Conservation of Nature
KIS	Key Informant Interviews
km	Kilometre
MECC	Ministry of Environment and Climate Change

Abbreviation	Definition
MNT	Mongolian Tugriks
MoE	Ministry of Energy
MRPAM	Mineral Resources and Petroleum Authority of Mongolia
M&E	Monitoring and evaluation
NGO	Non-Governmental Organisation
NO ₂	Nitrogen Dioxide
NPTG	National Power Transmission Grid
NSO	National Statistical Office
NSR	Noise Sensitive Receptor
OHSS	Occupational Health and Safety
OHTL	Overhead transmission line
O&E	Operation and maintenance
PIP	Public Information Policy
PIU	Project Implementation Unit
PM	Particulate Matter
PR	Performance Requirement
RoW	Right of Way
SEA	Sustainability East Asia
SEP	Stakeholder Engagement Plan
SMEs	Small and Medium Enterprises
SNH	Scottish National Heritage
SO ₂	Sulphur Dioxide
STD	Sexually transmitted diseases
UB	Ulaanbaatar
UNESCO	United Nations Education, Scientific and Cultural Organisation
UNFCC	United Nations Framework Convention on Climate Change
USDA	United States Department of Agriculture
WHO	World Health Organisation
WSCCM	Wildlife Science and Conservation Centre of Mongolia

1 Introduction

1.1 Background

- 1.1.1 The European Bank for Reconstruction and Development (EBRD) is considering providing a sovereign loan to the Government of Mongolia to finance the construction of a 204 kilometre (km) double circuit 220 kilovolt (kV) overhead transmission line (OHTL) in Dornogovi aimag (province). The route alignment will commence with a connection to a planned substation in Sainshand (to be constructed as part of the Choir-Sainshand OHTL project) and end with a connection to an existing 220/35/22 kV substation operated by the National Power Transmission Grid (NPTG), located within Tsagaan Suvarga mine licence area. The 204km OHTL and substation connections are herein referred to as 'the Project'.
- 1.1.2 Arcadis (UK) Consulting Limited, with their sub-consultants EcoTrend LLC, have been engaged to undertake an Environmental and Social Impact Assessment (ESIA) of the Project, including a critical review of available data against EBRD's 2019 Environmental and Social Policy (ESP) and Performance Requirements (PRs), identify gaps and where necessary, augment existing information to satisfy EBRD requirements. This report presents the ESIA Report for the Project and forms one of several documents prepared to meet the EBRD disclosure requirements as follows:
- Non-Technical Summary (NTS);
 - Environmental and Social Management Plan (ESMP);
 - Land Acquisition and Resettlement Framework (LARF);
 - Stakeholder Engagement Plan (SEP); and
 - Environmental and Social Action Plan (ESAP).
- 1.1.3 A Public Consultation Summary Report will be prepared post-disclosure.
- 1.1.4 The Project design is set out in a detailed design report 'Detailed Engineering drawings for the 220kV double-Circuit Overhead Transmission Line Along the Sainshand–Tsagaan Suvarga Route' prepared by Master Point LLC on behalf of the Ministry of Energy in 2021.

1.2 Project Setting

- 1.2.1 The electricity generation and transmission network in Mongolia consists of the four independent energy systems, with the Project sitting within the Central Energy System (CES). The Project site location is shown in **Figure 1-1** below. The Project is located in Dornogovi aimag. The Project starts at the new 220/110/35kV substation in Sainshand that is being constructed as part of the Choir-Sainshand project. The OHTL then proceeds south-west, crossing four soums (districts) -Sainshand, Ulaanbadrakh, Saikhandulaan and Mandakh- before reaching the existing 220/35kV substation at Tsagaan Suvarga.

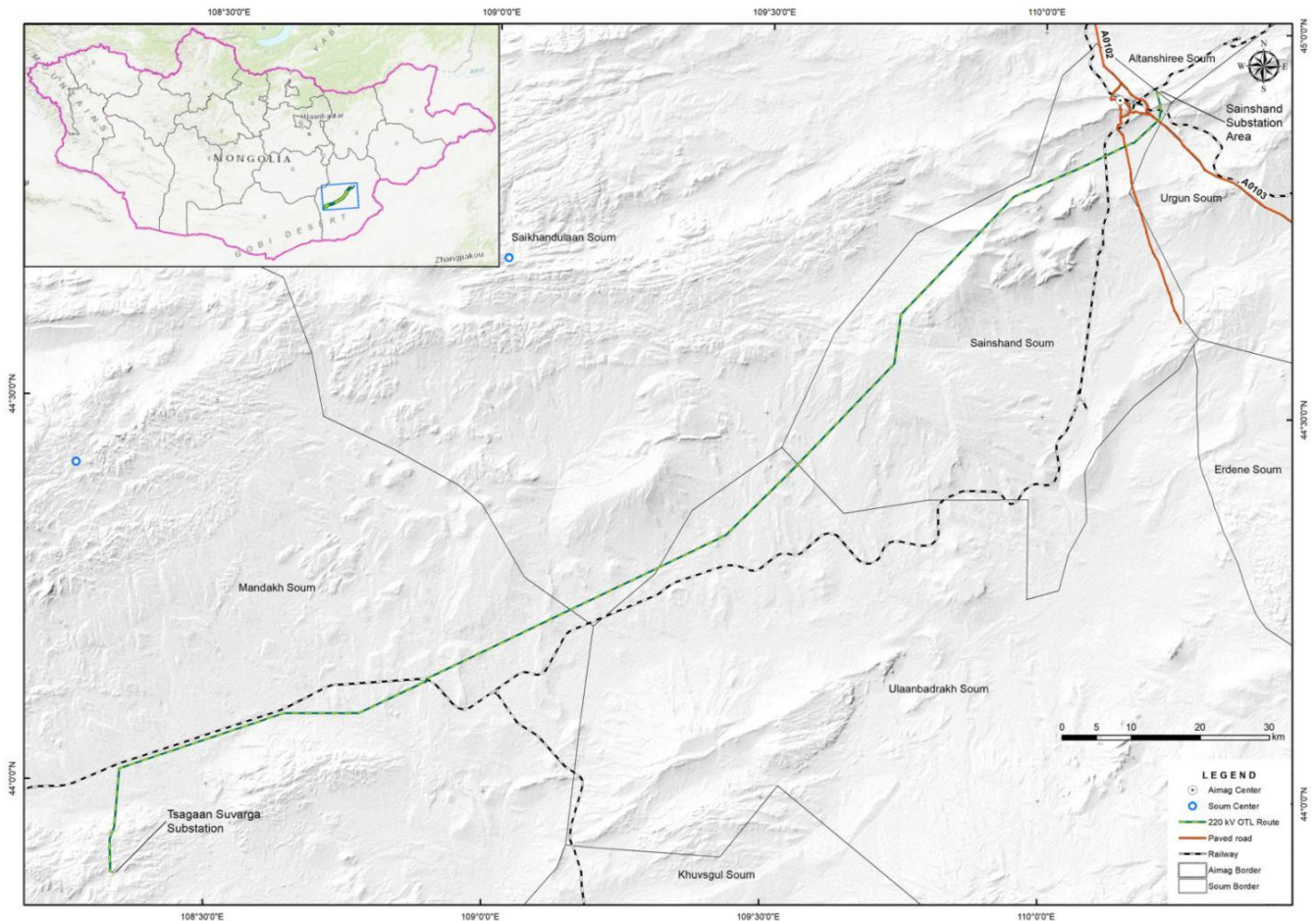


Figure 1-1 Project Location

- 1.2.2 In general, the route proposed for the OHTL is sparsely populated and has desert vegetation characteristics of the Gobi desert. The nearest permanent settlement is Sainshand city (approximately 2km at its nearest point), then Zuun-Bayan and Mandakh, approximately 26km and 43km away respectively from the Project route. There is also a Student Military Training Centre near Zuun-Bayan (22km from the Project route).
- 1.2.3 Dornogovi aimag is connected to Ulaanbaatar, the capital city, by paved roads A0101 and A0102, which form part of the Asian Highway 3 (AH3). AH3 connects Mongolia's northern border with Russia at Altanbulag and southern border with the People's Republic of China at Zamyn-Uud. Dornogovi aimag centre and soum centres all have paved roads, though the Project soums are connected to each other by a mixture of paved roads (soums along the AH3) and unpaved (earth) roads (from Sainshand to other aimag towns). There is no direct paved access along the Project route.
- 1.2.4 The Trans-Mongolian Railway forms a major socio-economic connection with Russia and China, connecting the Trans-Siberian Railway from Ulan-Ude in Russia to Erenhot and Beijing in China through Ulaanbaatar. The Mongolian section of this railway line runs for 1,110km. A 27km industrial purpose railway line also connects Sainshand with Altanshiree soum, Dornogovi aimag, to allow development of the Mongolian oil refinery under construction in Altanshiree soum.

1.3 Aim of the Project

- 1.3.1 The aim of the Project is to form a circular transmission network by providing a closed-loop system between the Ulaanbaatar-Baganuur-Choir line and the Choir-Sainshand line (currently in the pre-construction phase) and the Ulaanbaatar-Mandalgovi-Tavantolgoi-Oyu Tolgoi-Tsagaan Suvarga corridor, which will significantly improve the reliability and resilience of power supply to key development projects across the Gobi region.

1.4 The Client

- 1.4.1 The Ministry of Energy (MoE) will be the developer for the Project. The MoE is responsible for energy policy and associated infrastructure development in Mongolia and is the Project Proponent in the context of this Project. The MoE has appointed a dedicated Project Implementation Unit (PIU) to serve as the main point of contact for coordination and communication with EBRD and consultants as part of the ongoing Choir-Sainshand OHTL project. This PIU is due to be dissolved at the end of 2025 however, a new PIU will be established in 2026. It is anticipated that a PIU would be required for this Project; with ideally the same professionals as for the Choir-Sainshand project to enable continuity of application of the EBRD projects and application of any lessons learned.
- 1.4.2 The National Power Transmission Grid (NPTG) is a state-owned power transmission utility that is responsible for the operation and maintenance of all 22kV, 35kV, 110kV and 220kV substations and overhead transmission lines in Mongolia. The company also manages a network of 84 substations that support the transmission lines. The NPTG will be responsible for operation of the Project.

1.5 EBRD Project Requirements

- 1.5.1 The EBRD's 2019 Environmental and Social Policy (ESP) categorises projects (A, B or C) to determine the nature and level of environmental and social investigations, information disclosure and stakeholder engagement required. Categorisation should be commensurate with the nature, location, sensitivity and scale of a project, and the significance of its potential adverse future environmental and social impacts. Past and present environmental and social issues and risks associated with project-related existing facilities are subject to environmental and social appraisal regardless of the categorisation.
- 1.5.2 In line with Appendix 2 of the ESP 2019, the EBRD has assigned the Project a Category A status as the Project is a greenfield development and comprises "Construction of high voltage overhead electrical power lines". This categorisation means that a comprehensive ESIA must be prepared, and a review of associated documents must be carried out, and, in line with EBRD's Access to Information Directive 2019, as a public sector project it must be subject public disclosure for a minimum period of 120 calendar days.

1.6 Environmental and Social Impact Assessment

- 1.6.1 The purpose of this ESIA is to systematically identify environmental and social impacts throughout the Project lifecycle, and to develop and establish a methodology to implement mitigation measures, to avoid or reduce the impacts. This ESIA has been undertaken in accordance with, and has been prepared to comply with, EBRD's ESP 2019 and PRs and will be disclosed together with other documents, as set out in **Figure 1-2** below.



Figure 1-2 ESIA Disclosure Package Structure

- 1.6.2 The PRs also require substantive European Union (EU) standards to be applied, including:
- Directive 2014/52/EU – The EIA Directive;
 - Directive 2000/60/EC – The Water Framework Directive;
 - Directive 2008/98/EC – The Waste Framework Directive;
 - Directive 2009/147/EC – The Birds Directive;
 - Directive 92/43/EEC – The Habitats Directive;
 - Directive 2024/2881/EC – The Ambient Air Quality and Cleaner Air for Europe Directive;
 - Directive 2013/35/EU – The Minimum Health and Safety Requirements regarding the Exposure of Workers to the Risks arising from Physical Agents (electromagnetic fields);
 - Directive 89/391/EEC – The Occupational Health and Safety Framework Directive; and
 - Directive concerning the Minimum Safety and Health Requirements for the Workplace (89/654/EEC).
- 1.6.3 Where Mongolian regulations differ to the PRs and EU substantive environmental and social standards, the Project will be expected to meet whichever is more stringent. Further details on the relevant standards, legislation and policies are provided in **Chapter 4**.

1.7 ESIA Team

1.7.1 The ESIA Team is comprised of specialists from Arcadis, EcoTrend and Ocean Revive. The core ESIA Team is presented in **Table 1-1**. The Technical Specialists are presented in **Table 1-2**.

Table 1-1 ESIA Project Team

Name	Role	Company
Rachael Bailey	Project Director / Environmental Specialist	Arcadis
Katie Prebble	Project Manager / ESIA Specialist	Arcadis
Adam Khan	Project Coordinator	Arcadis
Dr Magnus Macfarlane	International Social and Gender Specialist	Ocean Revive
Amir Shah	Health and Safety Specialist	Arcadis
Sarah Winne	Climate	Arcadis
Enkhtulga Tumurbaatar	Team Leader	EcoTrend
Tserenkhand Gurbadam	Social and Gender Specialist	EcoTrend
Tuvshintugs Sukhbaatar	Ornithologist	EcoTrend

Table 1-2 Technical Specialists

Name	Role	Company
Martina Girvan	Biodiversity, Ecosystems, Natural Capital and Nature Based Solutions Expert	Arcadis
Richard Anderton	Ecology, Ornithology	Arcadis
Lisa Driscoll	Hydrology and Drainage	Arcadis
Thomas Wright	Air Quality	Arcadis
Mark Arnold	Noise and Vibration	Arcadis
Jenny Wylie	Cultural Heritage	Arcadis
Charles Hutchinson	Transport	Arcadis
Bruce Lascelles	Soils	Arcadis
Ben Hilder	Landscape & Visual Impact	Arcadis
Khurelsukh Dulmaa	Biology / Ornithology	EcoTrend
Sumjidmaa Tumurchudur	Social Expert	EcoTrend
Nomin-Erdene Battsooj	Ecology	EcoTrend
Bayarsaikhan Purevjav	Environmental Expert	EcoTrend
Uuriintsolmon Enkhtaivan	Botanist	EcoTrend
Munkhtsetseg Zorigt	Hydrology	EcoTrend

Name	Role	Company
Bilguun Bayarsaikhan	Air Quality, Noise and Vibration	EcoTrend
Ankhubayar Ochirbat	Soils and GIS	EcoTrend
Enkhtsetseg Byambaa	Resettlement	EcoTrend

1.8 Structure of this Report

1.8.1 This ESIA presents the findings of the assessment of the following environmental and social topics, includes the potential for significant effects and pertinent mitigation measures. A summary of the chapters and appendices is provided in **Table 1-3** below.

Table 1-3 ESIA Report Structure

Chapter	Description
1: Introduction	Introduction of the Project.
2: Description of the Project	Presents an overview of the Project, baseline information and details on construction activities and programme.
3: Consideration of Alternatives	Provides information on alternative sites and technologies that have been considered for the proposed design.
4: Standards, Legislative and Policy Context	Details the national and international environmental legislation that is of relevance to the Project. It also details EBRD policy and requirements.
5: Approach to the ESIA	Details the ESIA methodology for the environmental assessment.
6: Stakeholder Engagement	Summary of the approach to stakeholder engagement and feedback to date.
7: Air Quality 8: Noise and Vibration 9: Biodiversity, Flora and Fauna 10: Cultural Heritage 11: Landscape and Visual 12: Soils and Natural Hazards 13: Water Environment 14: Social and Community 15: Economy, Employment and Livelihoods 16: Land Use, Tenure and Displacement 17: Labour and Working Conditions 18: Climate 19: Cumulative Effects	Technical impact assessments of environmental and social topics.
20: Summary	Summary of all potential effects.

2 Project Description

2.1 Introduction

- 2.1.1 This chapter provides a description of the Project, covering the design, construction and operation and maintenance (O&M) phases. It also sets out the key assumptions used for the assessments set out in this report.
- 2.1.2 The Project description is based mainly on a review of the available documentation that was provided in Mongolian, namely:
- Design information:
 - Map of Integrated Energy System, 2021
 - Coordinates of turning points
 - Official letter regarding Grid study/Operating mode analysis review, 4 April 2021
 - Technical design of the 220kV Transmission line
 - Technical Conditions of the 220kV Dual-Circuit Overhead Line: Tsagaan Suvarga – Sainshand, 13 April 2021
 - Route Selection Brief for Overhead Transmission Line
 - Dornogovi Aimag – Budget for the Expansion of the 220/22kV Tsagaan Suvarga substation and the Tsagaan Suvarga–Sainshand 220kV Double-Circuit Overhead Transmission Line, 28 January 2022
 - Design of the Transmission line and Expansion of Tsagaan Suvarga substation
- 2.1.3 Meetings have also been held with the MoE, PIU and NPTG. According to the PIU and MoE, a feasibility study for the Project was not prepared as the Project was started during the period of COVID-19 and a decision was taken to progress it directly to a detailed design stage.
- 2.1.4 It has been supplemented by the Spring and Autumn 2024 bird survey reports related to the Project:
- Spring 2022 bird survey (Sustainability East Asia and Wildlife Science and Conservation Centre of Mongolia)
 - Autumn 2024 bird survey (Arcadis)
 - Mongolia: Sainshand - Tsagaan Suvarga TL project - Project Feasibility Assessment; Inception Report (INTEGRATION Umwelt & Energie GmbH, October 2025)
- 2.1.5 It is anticipated (and recommended) that the Project will be subject to micro-siting of the towers by the appointed Construction Contractor engaged by the MoE to construct the Project.

2.2 Energy Context

- 2.2.1 Mongolia's energy system serves about 3.5 million people, with most of the system use concentrated in the Central Region of Mongolia. The power system is made up of four regional electricity grids (see **Figure 2-1**): the Central Energy System (CES), the Western, the Eastern, and the Altai-Uliastai energy systems. The CES is the largest energy network in Mongolia, serving the primary load centre of Ulaanbaatar, the capital city, and accounting for 88.8% of the country's electricity production and sales. The Project is located in the CES. The operational capacity and power quality of these networks, particularly the three networks outside the CES, remain very low.

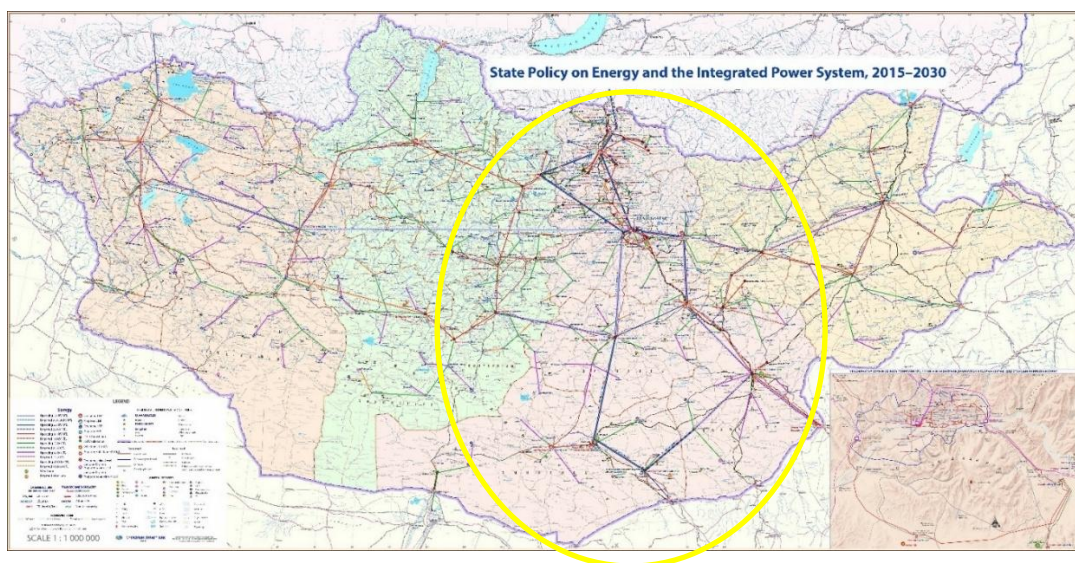


Figure 2-1 Electricity Networks and Transmission Systems in Mongolia (CES in yellow)

- 2.2.2 There has been an increase in electricity demand in the country following economic development over the last decade. Currently, 75.4% of the country's electricity needs are met through domestic generation, while the remaining 24.6% is covered by imports from Russia and the People's Republic of China¹. In 2024, Mongolia produced 8,754.7 million kilowatt hours (kWh) and 2,863.4 million kWh (24.6%) was imported².
- 2.2.3 In 2024, 90.6% of domestic electricity generation came from coal-fired combined heat and power plants, and 9.4% is sourced from renewable energy³ such as hydropower (9% of total renewables), solar (28.2% of total renewables), and wind (62.8% of total renewables), well below the estimated global average of 30% in 2023⁴. As of 2023, Mongolia has three wind farms, nine solar plants, and several small hydropower plants. As of 2024, the installed capacity of coal-fired thermal power plants in Mongolia was 1,319 megawatts (MW), while renewable energy sources such as wind, solar, and hydropower accounted for 336.8MW.

¹ Statistics on Energy Performance 2024. Available at: erc.gov.mn

² ERC, Energy Sector Statistics for 2024. Available at <https://erc.gov.mn/mn/>.

³ ERC, Energy Sector Statistics for 2024. Available at <https://erc.gov.mn/mn/>.

⁴ Available at: Эрчим хүчний зохицуулах хороо | Energy Regulatory Commission | STATISTICS ON ENERGY PERFORMANCE 2023

- 2.2.4 In 2024, the total installed capacity for power generation in the CES area was 826MW, with a gross electricity demand of around 729MW (which accounted for approximately 95% of the total load in the country). CES energy demand has increased over the years, with demand expected to increase by 78% by 2030 compared to a 2016 baseline, to meet the growing demand in the CES region. This increase in demand has arisen due to the major economic development and urban population increase in the region.
- 2.2.5 **Figure 2-2** sets out the various sources of power within the CES. The majority of the supply is from the Combined Heat and Power (CHP) Stations #3 and #4 in Ulaanbaatar. Aligned with Mongolia's Vision 2050 and the New Recovery Policy, the Government plans to implement additional renewable energy projects, including the 90MW Erdeneburen Hydropower Plant, a 200MW battery storage facility, and the 315MW Eg River Hydropower Plant. Under the Upscaling Renewable Energy Sector Project with the Asian Development Bank (ADB), the 10MW Moron solar power plant was connected to the CES in September 2024. A 50MW battery storage station built in Banaguur district of Ulaanbaatar began supplying energy to the CES in December 2024. A 17.5MW solar plant is also expected to begin operation, however, no further information is currently available on this development. Overall, the MoE explained that CHP accounts for 1,378MW, wind farms 155MW, Solar farms 130MW and battery storage 150MW.

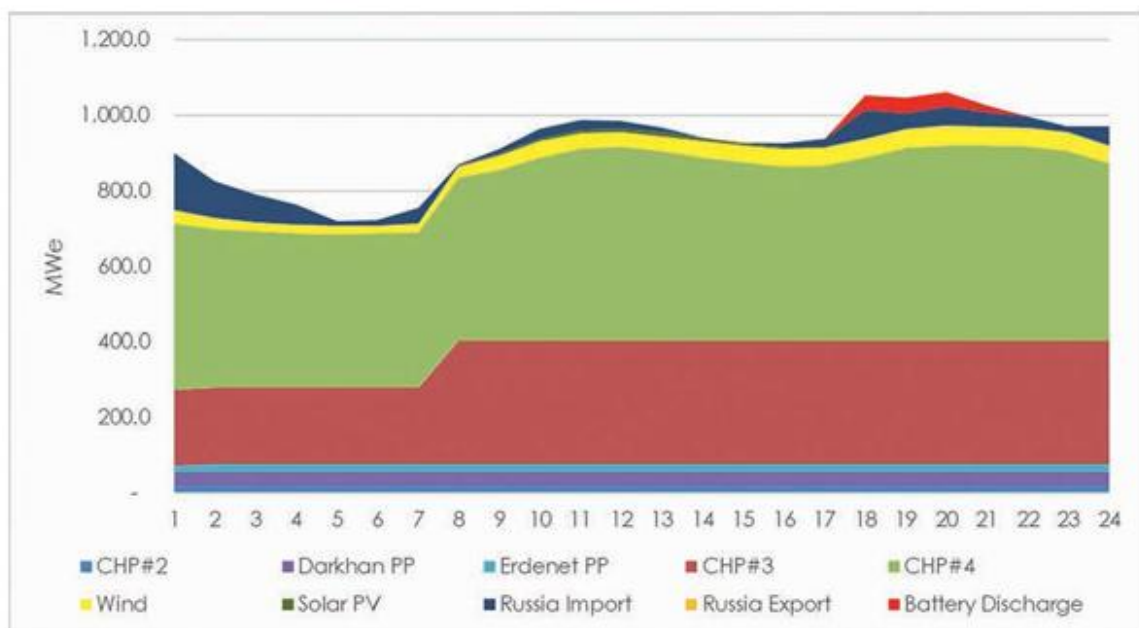


Figure 2-2 Daily Power Supply-and-Demand CES⁵

Key: CHP = combined heat and power, MWe = megawatt electric (1 million watts of electrical capacity), PP = power plant, PV = photovoltaic. Notes: 1. The data in this figure are based on a simulation for 2022. 2. The values along the horizontal axis indicate the hours during a theoretical day for which energy supply and demand were estimated.

⁵ Source: Asian Development Bank. 2020. Mongolia: Energy Storage Option for Accelerating Renewable Energy Penetration. Consultant's report. Manila (TA 9569-MON). Designing a Grid-connected Battery Energy Storage System - Case Study of Mongolia, April 2023.

- 2.2.6 After the parliamentary election in June 2024, at the Mongolian Economic Forum 2024 Prime Minister Luvsannamsrai Oyun-Erdene announced a goal of liberalising the energy sector. In 2024, the Government established a National Committee for Energy Reform, chaired by the Deputy Prime Minister in charge of Investment and Trade, Anti-Monopoly and State procurement, to oversee this transition, however in July 2025 this committee was dissolved by Cabinet with an aim to streamline decision-making bodies within the energy sector. Nonetheless, the reform agenda includes liberalising the energy market, revising tariffs, and restructuring state-owned enterprises to attract private investment and improve operational efficiency⁶. A working group has been tasked with overhauling key legislation, including the Laws on Energy, Renewable Energy, and Energy Conservation, to foster competition, decentralise energy production, and accelerate the green transition. These policy shifts align with Mongolia's Vision 2050 and the New Recovery Policy, which emphasise renewable energy development and grid reliability.
- 2.2.7 Development of the energy sector is outlined in Mongolia's Long-Term Development Policy: Vision 2050. Mongolia has a target to have 30% renewable energy capacity by 2030 and to reduce greenhouse gas emissions in the energy production and supply sector by 8.34 million tons by 2030, reflecting the country's commitment to transitioning to a low-carbon, green economy. Mongolia's renewable energy potential is estimated at 2,600 gigawatts (GW), including wind and solar. This is over 1000 times larger than the 1.6GW installed capacity of Mongolia's electricity system.

2.3 CES Transmission and Distribution Network

- 2.3.1 As of 2024, there were 2,038km of 220kV and 5,764km of 110kV transmission lines and 10,678km of 35kV distribution lines within Mongolia⁷. The existing and planned 220 kV grid in the CES is shown in **Figure 2-3** below. There are also eleven 220kV substations, seventy-eight 110kV substations and three hundred and six 35kV substations in the CES as of 2024. NPTG operates and manages the transmission lines and substations.

⁶ Available at: <https://www.esight.mn/post/2945>

⁷ Available at: Эрчим хүчний зохицуулах хороо | Energy Regulatory Commission | STATISTICS ON ENERGY PERFORMANCE 2023

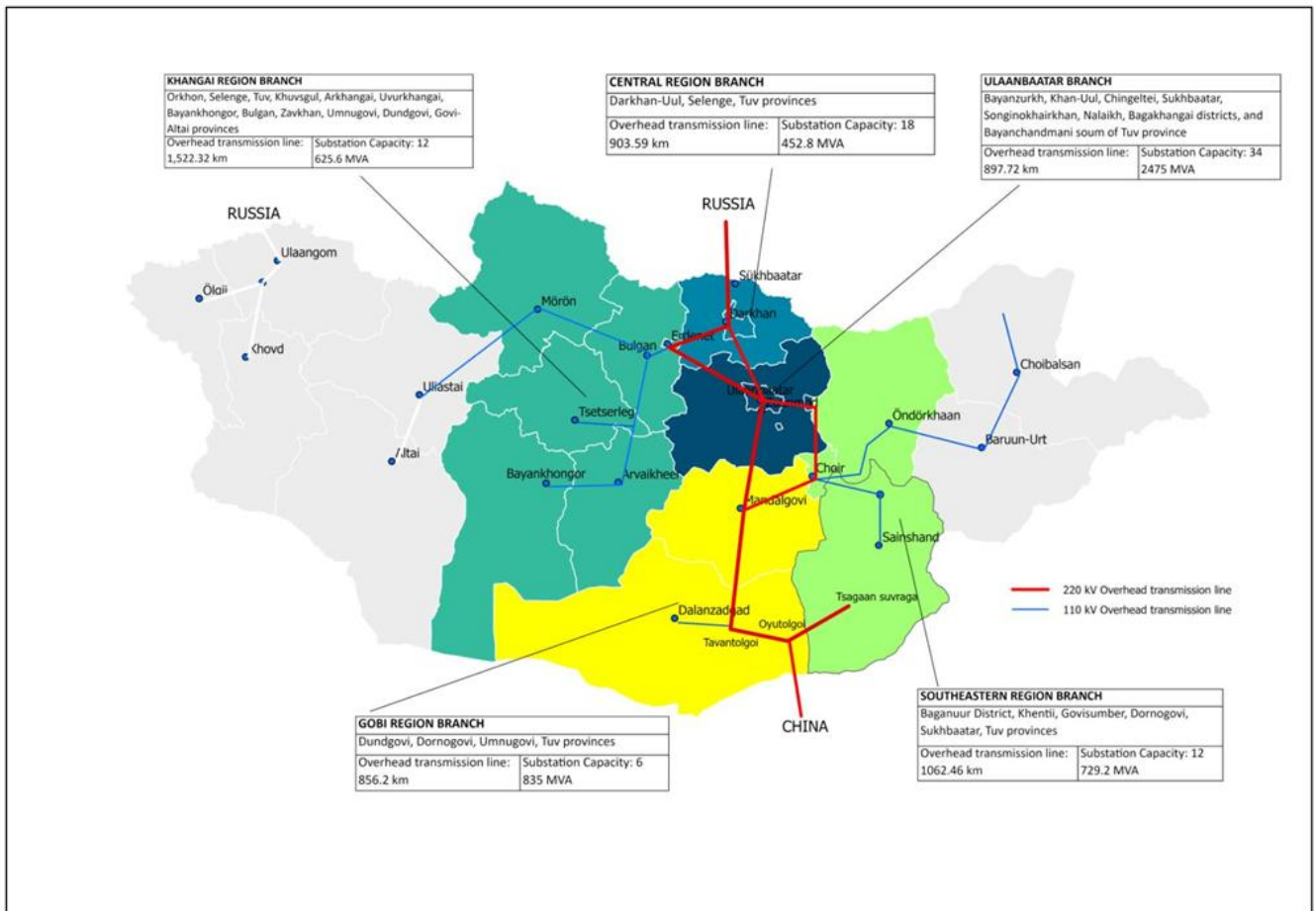


Figure 2-3 220kV transmission lines of CES⁸

2.3.2 According to the PIU, the following 220kV transmission lines are in operation in the CES:

- Selenge–Darkhan line, double circuit, 111.2km connects the grid with Russia
- Darkhan–Erdenet lines (201, 202), double circuit, 153km
- Ulaanbaatar–Erdenet lines (203, 204), double circuit, 257.7km linking Thermal Power Plant No. 4 with Erdenet substation
- Double circuit (205, 206) line with a route length of 29.5 km, connecting IHB 4-Ulaanbaatar substations
- Baganuur-Choir line (207), single circuit, 178km
- Ulaanbaatar-Darkhan line (208), single circuit, 197.7km connecting Thermal Power Plant No. 4 with Darkhan substation
- Ulaanbaatar-Baganuur lines (209, 210), double circuit, 117.17km connecting CHP-4 to Baganuur substation
- Double circuit lines (211, 212) with a route length of 16.5km, connecting IHB 4-Songino substations
- Songino-Mandalgovi lines (213, 214), 220kV, designed for 330kV, 249.1km long

⁸ Available at: <https://transco.mn/reports/report2024/index.html>

- Mandalgovi-Tavantolgoi lines (215, 216), double circuit, 249.8km
- Tavantolgoi-Oyu Tolgoi lines (217, 218), double circuit, 136.29km
- Double circuit line (219,220) with a route length of 12.1km, connecting Oyu Tolgoi-Central substations
- Double circuit line (221,222) with a route length of 159.4km, connecting Oyu Tolgoi-Tsagaan Suvarga substations.
- Single circuit line (225) with a route length of 184.8km, connecting Choir-Mandal substations.
- Double circuit line (261,262) with a route length of 71.2km, connecting Booroljuut CHP-Baganuur substation.
- Oyu Tolgoi-China, double circuit line, 175km

2.3.3 Currently planned or under construction are:

- Choir-Sainshand double circuit line, 220km

2.3.4 The transmission lines are shown graphically in **Figure 2-4**.

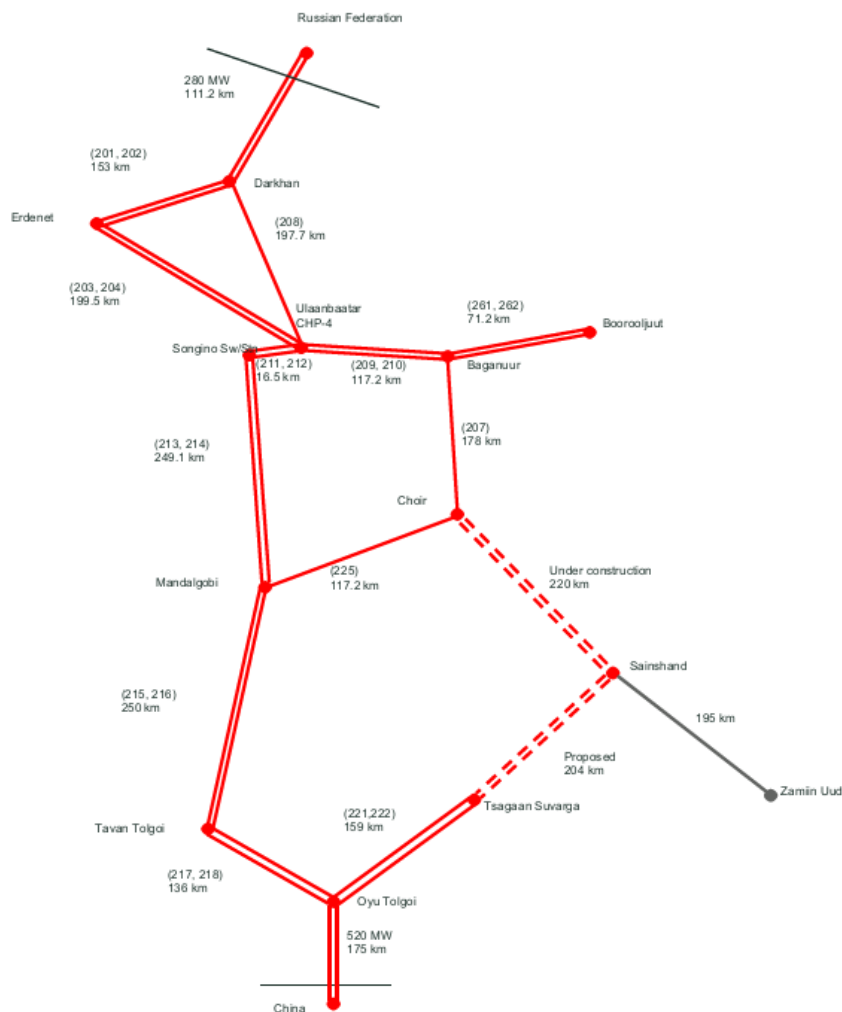


Figure 2-4 Transmission Lines in the CES

Source: INTEGRATION Umwelt & Energie GmbH Inception Report (October 2025)

- 2.3.5 In terms of electricity distribution, this is provided by State-owned and private companies across Mongolia. The Project lies within the Baganuur-Southeast Region Electricity Distribution Grid (BSRDG). NPTG supplies electricity to BSRDG. BSRDG was established in 1984. Its main areas of operation include:
- Distribution of electricity and regulated power supply;
 - Installation, maintenance, and commissioning of 0.4–110kV overhead transmission lines and substations;
 - Installation, repair, and sale of electromagnetic measuring instruments; and
 - Import of electricity and related services.
- 2.3.6 BSRDG supplies electricity to 58 soums and settlements across one district of the capital city and seven provinces. It serves a total of 49,637 consumers, including:
- 5,350 legal entities and organisations; and
 - 44,287 households (16,153 in apartment buildings, 28,134 in *ger*⁹ districts).

2.4 Project Rationale

- 2.4.1 Mongolia's existing power transmission infrastructure is aged, inefficient and unreliable with major losses of power along transmission lines. The main challenges facing the Mongolian energy sector are:
- Domestic capacity shortage for generating electricity;
 - Lack of investment to implement needed power generation and transmission network maintenance and expansion;
 - Uncertainty regarding energy sector investment;
 - Lower efficiency of the aging power supply infrastructure;
 - Limited capacity to absorb additional power from new sources, especially Variable Renewable Energy (VRE) sources like Photovoltaics (PV) and Wind power plants; and
 - Higher loss of electricity transmission network¹⁰.

⁹ A Mongolian ger is a circular, domed tent-like dwelling that is portable and easily assembled and disassembled. Gers may be temporary in terms of location though may represent the only household of a herder. The structure is formed from wooden lattice and poles, tied together with rope made of horse hair. It's then covered in several layers of felt made from the hide of animals and often is covered in canvas to further protect from the elements.

¹⁰ Ministry of Energy 2018. Energy Sector of Mongolia, Country Report.

- 2.4.2 Development of the energy sector is outlined in Mongolia's Long-Term Development Policy: Vision 2050. The 2021 New Recovery Policy, a supporting policy to enhance the implementation of Vision 2050, includes a section on energy policy, which focuses on enhancing energy production and supply reliability by developing renewable energy facilities. The Project is included in the Government's Action Plan for 2024-2028 which also supports Vision 2050.
- 2.4.3 In 2024, the CES transmission and distribution loss accounted for 11.67% of total power. The Project aims to ensure reliable power supply for development projects in the Gobi Region. It will form a circular transmission network by providing a closed-loop system between the Ulaanbaatar-Baganuur-Choir and Choir-Sainshand OHTLs (currently in the pre-construction phase) with the Ulaanbaatar-Mandalgovi-Tavantolgoi-Oyu Tolgoi-Tsagaan Suvarga corridor, which will significantly improve the reliability and resilience of power supply to key development projects across the Gobi region.
- 2.4.4 The newly constructed Booroljuit, Bayan, Baganuur, and Tavan Tolgoi substations, along with the ongoing Choir-Sainshand 220kV substation project and the Project (Sainshand-Tsagaan Suvarga), will help eliminate power grid capacity shortages and improve reliability. These facilities will supply electricity to newly established or under construction processing plants (such as the oil refinery, Sainshand Industrial Park, and copper processing plants), as well as to railway and road infrastructure, and associated loading and unloading facilities across the Gobi region. The Project is an integral connection between the Sainshand and Tsagaan Suvarga substations.
- 2.4.5 The MoE also stated that the Project will help enhance the transmission capacity of the CES, enabling technical integration of electricity generated by newly planned energy sources such as:
- Raid Mongolia CHP - 70MW /Oct 2027/
 - Darkhan CHP - 50MW /May 2028/
 - Dalanzadgad - 50MW /May 2028/
 - Tavantolgoi 600MW, Phase I-300MW /Oct 2027/, Phase II-300MW /May 2028/
 - Buuruljuut CHP 600MW
 - Phase I-300MW /Oct 2025/
 - Phase II-150MW /Oct 2027/
 - Phase III-150MW /May 2028/
 - Bayan CHP 660MW
 - Phase I-330MW /July 2027/
 - Phase II-330MW /May 2028/
 - CHP-2 300MW
 - Phase I-150MW /May 2028/
 - Phase II-150MW /Oct 2029/
- 2.4.6 The following existing and future users may benefit from the Project (subject to ultimate distribution connections):
- Existing users:
 - Dornogovi *aimag* and their *soums*, various businesses and mines, where currently connected to the grid, through more reliable transmission that then feeds into the distribution

network. BSRDG supplies electricity to 58 soums and settlements and serves a total of 49,637 consumers (including households).

- Planned developments, such as:
 - Power supply projects as identified in section 2.4.5 above
 - Tsagaan Suvarga copper mine expansion.
 - Oil refinery in Altanshireet soum.
 - Altanshireet Metallurgical Complex.
 - Zамын Ууд Free Economic Zone development.

2.5 The Existing Site

Site Location

- 2.5.1 The proposed OHTL route runs from Sainshand city in the east to Tsagaan Suvarga mine in the west of Dornogovi aimag. It passes through four soums, as summarised in the table below.

Table 2-1 OHTL Route and Soums Traversed

Soum name	OHTL	
	Length, km	Proportion (%)
Sainshand	79.2	38.7
Ulaanbadrakh	25.3	12.4
Saikhandulaan	14.1	6.9
Mandakh	85.9	42

- 2.5.2 Sainshand city is the administrative capital of Dornogovi aimag and is located approximately 415km south-east of Mongolia's capital city, Ulaanbaatar. Sainshand city is an important railway hub along Trans-Mongolian Railway. Several spur lines pass through Sainshand, including a line to Zuun-Bayan, a bagh in Sainshand soum in Dornogovi aimag.
- 2.5.3 Tsagaan Suvarga is the location of a copper mine in the west of Dornogovi aimag, approximately 180km south-west of Sainshand. No direct paved road connects Tsagaan Suvarga mine and Sainshand city along the proposed Project route.
- 2.5.4 Sainshand substation will be located approximately 4.4km north-east of Sainshand city, in an area called Khuurai Bazyn Khyar (at around 1,010m above sea level), and is being constructed as part of the EBRD-funded Choir-Sainshand OHTL project (**Plate 2-1**). At the time of writing, procurement was underway by the MoE/PIU to appoint a Construction Contractor, and it is anticipated that the substation will be operational by 2028. Whilst the Sainshand substation does not need the (Sainshand-Tsagaan Suvarga) Project to operate, the Project OHTL will need the Sainshand substation to operate. The existing 220/35/22kV substation at Tsagaan Suvarga (**Plate 2-2**) is located within the Tsagaan Suvarga licensed mining area.



Plate 2-1 View from planned Sainshand substation location towards Sainshand city



Plate 2-2 View of Tsagaan Suvarga substation

2.5.5 A review by the ESIA Team indicates that the route corridor will pass over the following (**Table 2-2, Figure 2-5 and Plates 2-3 to 2-8**):

- 110kV lines: 3 times
- 35kV lines: 5 times
- 10kV lines: 1 time
- Fibre optic cable: 1 time
- Main paved roads: 2 times
- Upgraded earth road: 5 times
- Railways: 3 times

Table 2-2 Project Route Crossing of Local Infrastructure

	Tower Number	Location	E	N	Tower Type	Infrastructure
1	54	ПК156+54.32	287064.7	4877197	Y220-2+9	Intersection-35kV double-circuit OTL
2	57	ПК165+64.32	287927.3	4877486	ΠC220-2	Intersection-Fiber optic cable
3	77	ПК224+59.34	293515.5	4879363	ΠC220-2	Intersection-Upgraded earth road
4	99	ПК290+69.34	299781.4	4881468	ΠC220-2	Intersection-35kV double-circuit OTL
5	125	ПК368+13.76	307122.8	4883934	ΠC220-2	Intersection-Upgraded earth road
6	133	ПК392+48.76	309431	4884710	ΠC220-2	Intersection-Upgraded earth road
7	134	ПК395+28.76	309696.4	4884799	ΠC220-2	Intersection-Upgraded earth road
8	146	ПК431+46.33	313253.9	4885171	ΠC220-2	Intersection-Upgraded earth road
9	210	ПК624+96.67	331562.3	4889836	Y220-2+9	Intersection-Railway

	Tower Number	Location	E	N	Tower Type	Infrastructure
10	212	ПК631+12.31	331807.9	4890277	ΠC220-6	Intersection-35kV double-circuit OTL
11	640	ПК1906+58.53	429541.5	4965695	Y220-2+9	Intersection-Railway
12	645	ПК1920+45.90	430793.1	4966294	Y220-2+9	Intersection-Auto road
13	651	ПК1937+72.72	432358.4	4967044	ΠC220-2	Intersection-10kV OTL
14	655	ПК1950+17.21	433471.8	4967577	Y220-2+9	Intersection-35kV OTL, 110kV OTL
15	670	ПК1994+86.66	436811.3	436811.3	ΠC220-2	Intersection-110kV OTL
16	673	ПК1999+44.35	437148	437148	Y220-2+5	Intersection-Auto road
17	673	ПК2001+66.98	437285.3	4970938	ΠC220-6	Intersection-35kV OTL
18	674	ПК2004+04.68	437432	4971125	Y220-2+9	Intersection-110kV OTL
19	678	ПК2015+37.55	437643.1	4972238	Y220-2+9	Intersection-Railway
20	684	ПК2030+09.14	437407	4973673	ΠC220-6	Intersection-110kV OTL

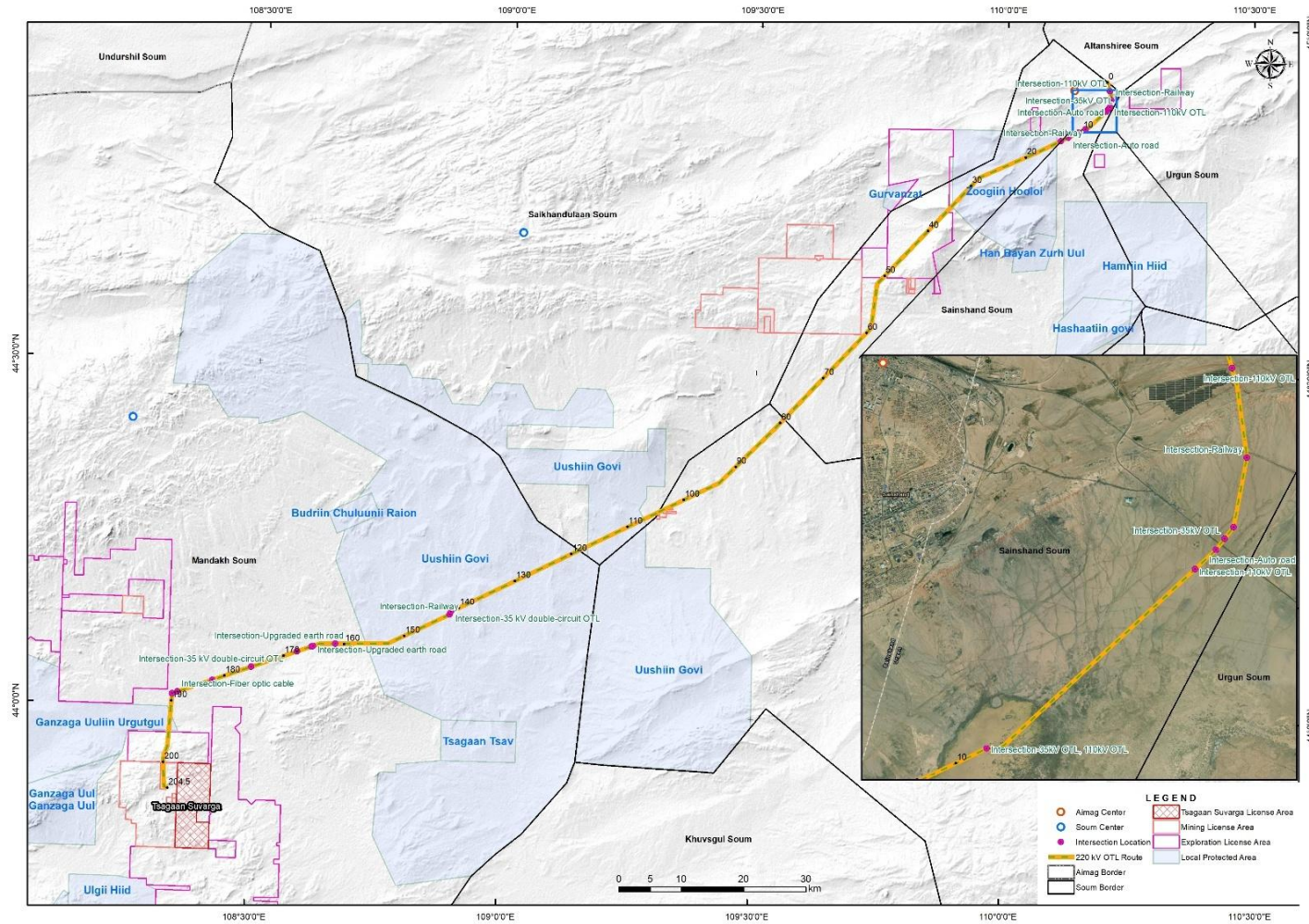


Figure 2-5 The Project Route and Local Infrastructure



Plate 2-3 View from the southwest to the northeast where the OHTL route crosses the Sainshand-Zamiin-Uud road and railway, approximately at km5



Plate 2-4 View from east to west of the section where the OHTL route crosses the existing transmission line, approximately at km5



Plate 2-5 View of location of second railway crossing



Plate 2-6 Third railway crossing embankment



Plate 2-7 View from northeast to southwest at turning point approximately KM59



Plate 2-8 Existing 35kV OHTL along the route

Project Surroundings

- 2.5.6 The Project surroundings are shown in **Figure 2-6** and **Plates 2-9 to 2-14**. The Project Area is situated within the East Gobi Depression Zone of the Greater Gobi region. This landscape is characterized primarily by expansive plains lying below 1,000m in elevation, interspersed with gently rising low hills typically ranging from 1,000 to 1,100m.
- 2.5.7 Sainshand city is the closest residential centre, approximately 4.4km from the proposed Sainshand substation. Excluding Sainshand, the proposed OHTL is in a rural, largely uninhabited, areas. Zuun-Bayan and Mandakh are the closest non-Sainshand permanent urban areas to the proposed route and are located approximately 44km away. Ulaanbadrakh soum town is the closest permanent urban area to Tsagaan Suvarga and is located approximately 93km to the north.

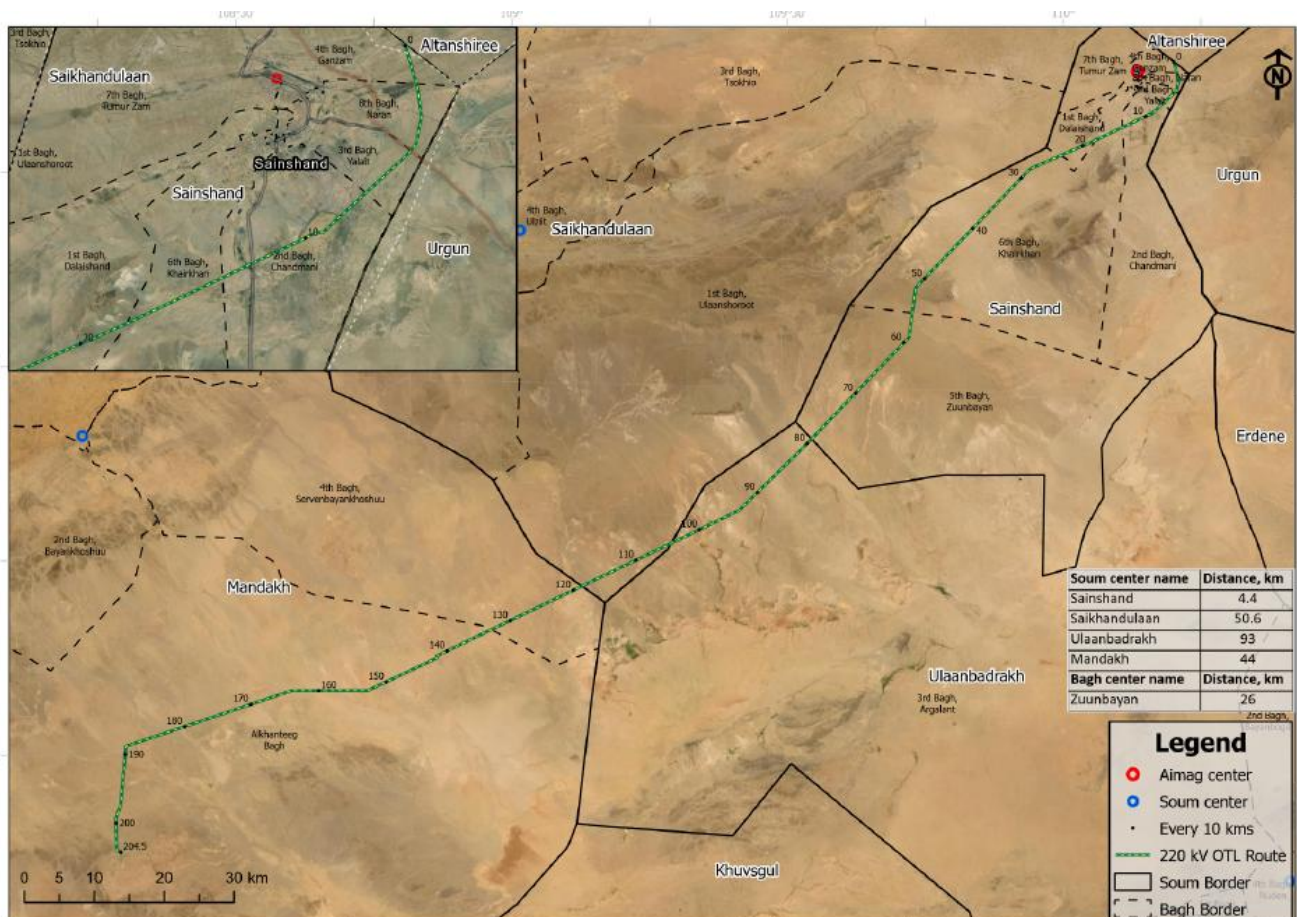


Figure 2-6 The OHTL route and nearest settlements



Plate 2-9 View of existing wind turbines and solar park from Sainshand



Plate 2-10 View along the OHTL route



Plate 2-11 Area of higher elevation in the distance



Plate 2-12 Herder camp located in the Project Area



Plate 2-13 Herding in the Project Area



Plate 2-14 Herding in the Project Area

2.6 The Proposed Project

Transmission Line

- 2.6.1 The proposed OHTL comprises a 204km 220kV double circuit overhead line. This circuit will have no tee off connections at any point, which will help to improve transmission between the two substations. The conductor wire will be AS-400/51, the groundwire jd70-2000. A 48 core optical cable and lighting protection cable will also be provided (specification OKT-Ц-a-48). The towers and lines for the transmission lines will be made from steel and aluminium; with materials sourced from international companies.
- 2.6.2 As the OHTL route will require changes in direction and elevation, different tower types are required depending on whether the power line maintains a constant direction or a change in angle or elevation. The Project will require 690 towers, as summarised in **Table 2-3** and **Figure 2-7**. The towers range in height between 36m to 41.5m. The foundation specifications for the different towers are shown in **Figure 2-8**. There is a variation in distance between individual towers that accounts for differences in surface elevation along the route and the characteristics of the terrain (rocks, dry stream beds, hills, and valleys), ranging from 139m to 323m for the anchor span and 139m to 7,449m for the transition span.

Table 2-3 Overhead transmission line towers

Type (see Figure 2-7)	Foundation System (see Figure 2-8)	Quantity	Height
PS220-2/ΠC220-2	4xΦ3-2, 4xAP-6	612	36m
PS220-2/ΠC220-6	4xΦ3-2, 4xAP-6	31	41.5 m
U220-2/Y220-2	4xΦ5-AM, 16xAP-6	31	31.6 m
U220-2+5/Y220-2+5	4xΦ5-AM, 16xAP-6	7	36.2 m
U220-2+9/Y220-2+9	4xΦ5-AM, 16xAP-6	8	40.6 m
U220-2+9/Y220-2+9	4xΦ3-2, 4xAP-6	1	40.6 m

Хэлхээний тоо	Хоёр хэлхээт	Хоёр хэлхээт	Хоёр хэлхээт	Хоёр хэлхээт	Хоёр хэлхээт
Тулгуурын төрөл	Завсрын тулгуур	Завсрын тулгуур	Эргэлтийн ба таталтын анкер тулгуур	Эргэлтийн ба таталтын анкер тулгуур	Эргэлтийн ба таталтын анкер тулгуур
Месжилтийн район	III-IV	I-IV	I-IV	I-IV	I-IV
Дамжуулагчийн хэлбэр	АС-300/39, АС-400/51	АС-300/39, АС-400/51	АС-300/39, АС-400/51	АС-300/39, АС-400/51	АС-300/39, АС-400/51
Трассын хэлбэр	ОКГТ-Ц-А-4В G.652D-14,0	ОКГТ-Ц-А-4В G.652D-14,0	ОКГТ-Ц-А-4В G.652D-14,0	ОКГТ-Ц-А-4В G.652D-14,0	ОКГТ-Ц-А-4В G.652D-14,0
Төрөл					
Тулгуурын маяг	ПС 220-2	ПС 220-6	У220-2	У220-2+5	У220-2+9
Тулгуурын жин, кг	Цинкгүй	5503	8467	14398	17603
	Цинктэй	5517	8798	14981	18290
				17603	19486
				18290	20245

Figure 2-7 Tension Towers

Foundation Specification Sheet

Foundation type	Ф3	Ф5	AP-6
Model			
Type	Ф3-2	Ф5-Ан	AP-6
Pylon	(P) П220-2	(У) У220-2, У220-2+5, У220-2+9	П220-2, ПС 220-6, У220-2, У220-2+5, У220-2+9
Page number	(MP) МП-020-21-И-3-11-1	(MP) МП-020-21-И-3-9	(MP) МП-020-21-И-3-13
Height, m	2.7	3.1	3.5
Area of foundation, m	1.8x1.8	2.7x2.7	0.5x0.2
Area of foundation, m	1.8x1.8	2.7x2.7	2.7x2.7
Installation depth, m	2.5	3	-
Volume of steel-reinforced concrete, m3	1.11	2.5	0.275
Weight of steel, kg	133	587	760

Figure 2-8 Tower foundation specifications

2.6.3 The construction of the foundations will be undertaken in accordance with national regulations on construction (BND20-03-11 and 20- 02-11) to protect steel and reinforced concrete structures from collapse. As identified above, two types of two types of foundation system will be used: '4x Φ 5-Am' and '4x Φ 3-2'. The AP-6 element is a horizontal reinforced concrete component, which is integrated into the foundation to provide additional structural support. The tower foundations or these are shown in **Figure 2-9**. Concrete foundation footings for towers and portals and concrete cable trays will be purchased from domestic producers and be transported to the project site. On average, four to six tower foundation footings can be loaded and transported by a truck trailer.

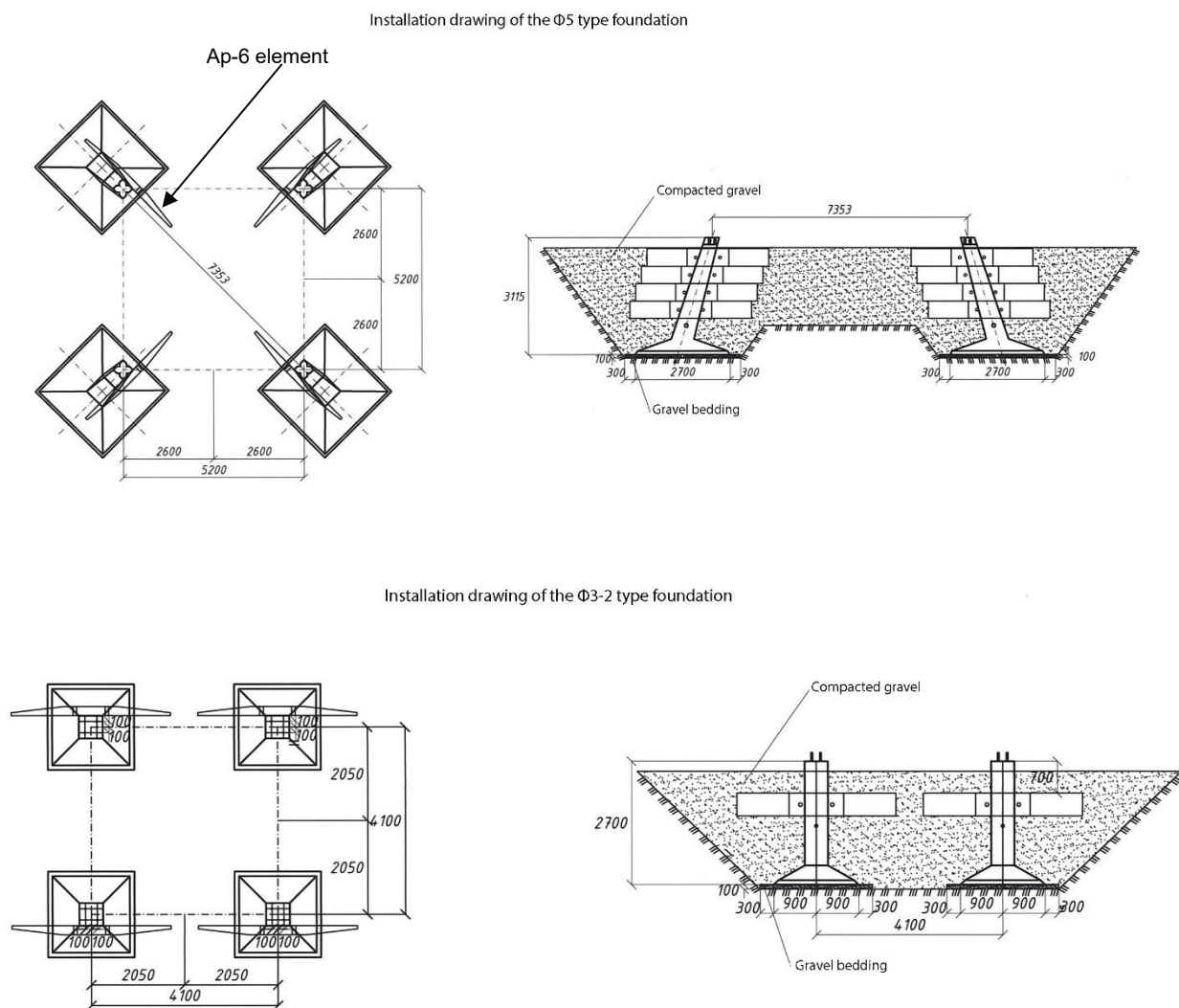


Figure 2-9 Indicative installation drawing for tower foundations

Sainshand Substation

- 2.6.4 The location of the planned Sainshand substation that will be constructed as part of the Choir-Sainshand OHTL Project is shown in **Figure 2-10**. This substation is due to be constructed before the (Sainshand-Tsagaan Suvarga) Project commences construction.

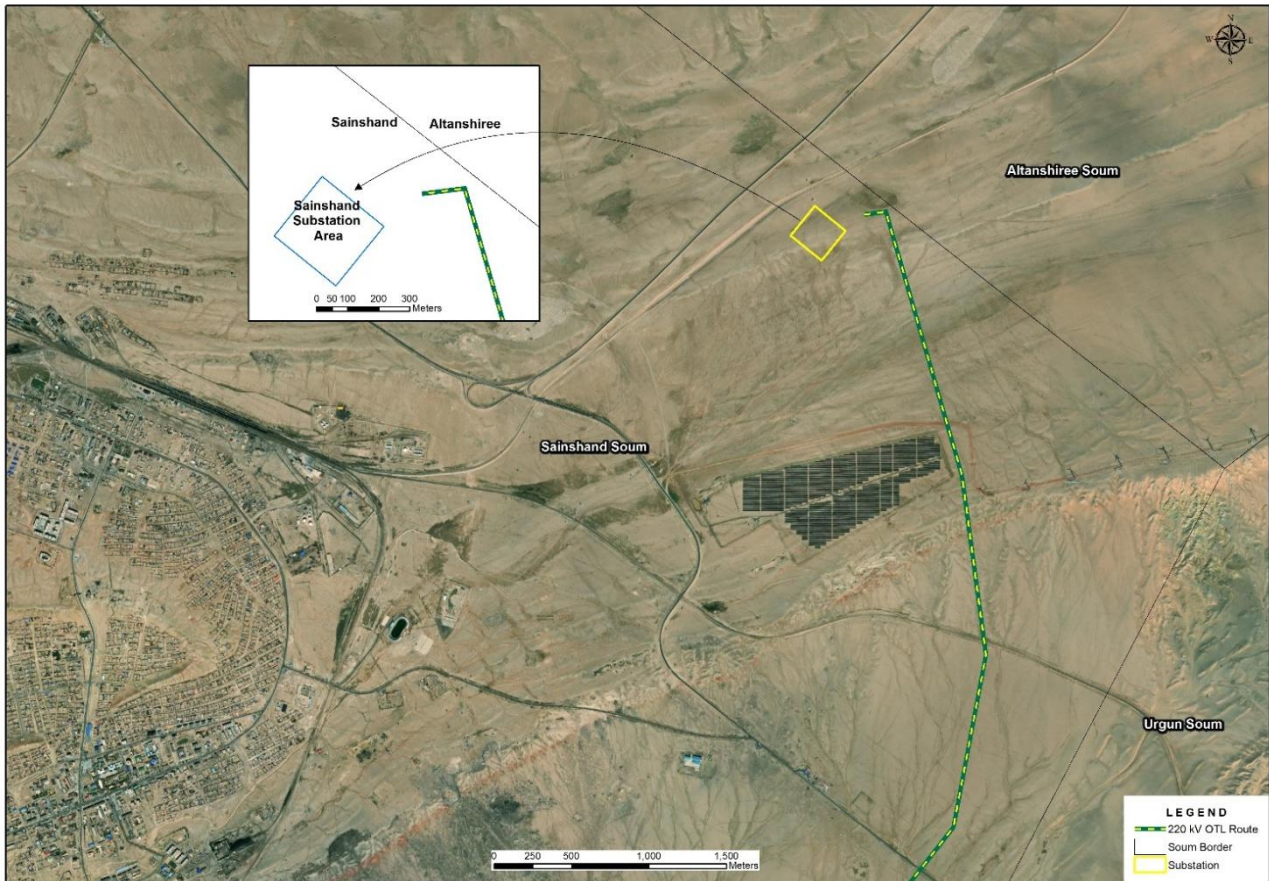


Figure 2-10 Sainshand substation location

- 2.6.5 Full details of the equipment required at this substation for the Project have not been provided to date, however, are likely to include: 220/110/35 kV autotransformers with 200 mega volt ampere (MVA) capacity;
- 220 kV distribution equipment;
 - Transformer for internal use;
 - Direct Current (DC) system;
 - Cables;
 - Lighting;
 - Lightning rod;
 - Control system;
 - Relay and automation system;
 - Security camera;

- System for protecting natural disaster; and
- Communications system.

Tsagaan Suvarga Substation

- 2.6.6 The Project will connect to the existing Tsagaan Suvarga substation, which is located within the Tsagaan Suvarga mining license area and adjacent the mine itself, owned and operated by Mongolian Alt Corporation (MAK) (**Figure 2-11**). Whilst the substation is owned and operated by the NPTG, it is located on land owned by MAK. The Government of Mongolia is currently in negotiation with MAK to become a shareholder of the mine. As part of this negotiation, the land within the substation would be transferred to state ownership (i.e. NPTG) under a concession agreement. It is anticipated that this concession agreement will be in place by 2026.
- 2.6.7 There are five existing grid connections to/from Tsagaan Suvarga substation; the 22kV OHTL from this substation provides power to consumers in Khatanbulag soum in Dornogovi aimag. An area within the substation has been identified for the Project connection.

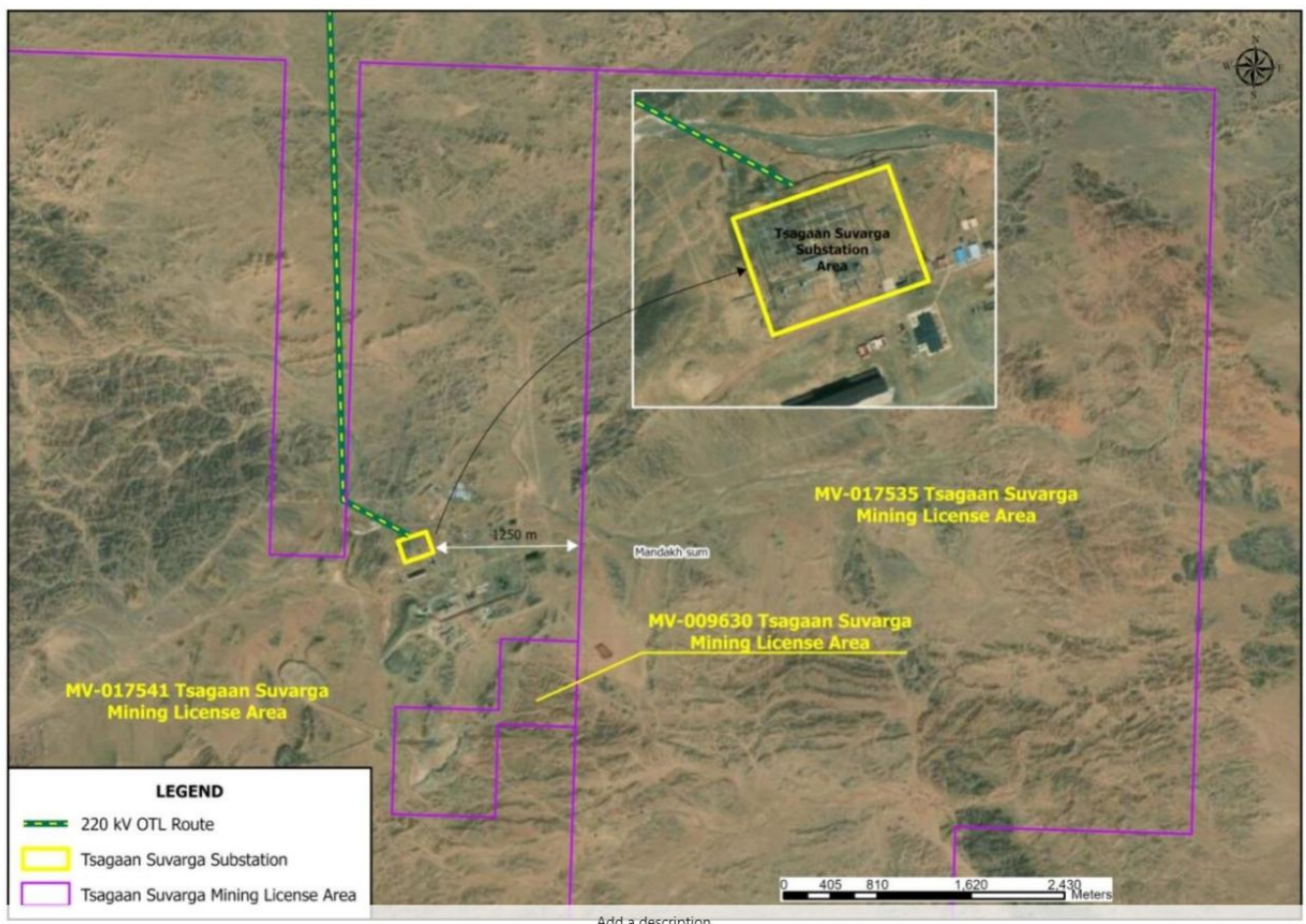


Figure 2-11 Tsagaan Suvarga substation location

2.6.8 The Tsagaan Suvarga substation equipment required specifically for this Project will include transformers and associated equipment:

- 220kV SF₆ Gas Circuit Breaker
 - Rated voltage: 252kV, Frequency: 50Hz
 - Rated current: 4000A, Short-circuit current: 50kA
- 220kV Three-Pole Disconnecter with Two Earthing Blades (Dry Type)
 - Rated voltage: 123kV, Frequency: 50Hz
 - Rated current: 2500A, Short-circuit current: 50kA
- 220kV Three-Pole Disconnecter with One Earthing Blade (Dry Type)
 - Rated voltage: 123kV, Frequency: 50Hz
 - Rated current: 2500 A, Short-circuit current: 50kA
- 220kV Single-Pole Disconnecter with One Earthing Blade (Dry Type)
 - Rated voltage: 123kV, Frequency: 50Hz
 - Rated current: 2500A, Short-circuit current: 50kA
- 220kV Surge Arrester
- 220kV Single-Phase Capacitive Voltage Transformer
- Three windings, Rated voltage: 220kV, Frequency: 50Hz
 - Accuracy class: 0.5 / Protection (ZP)
 - Burden capacity: 30 / 80VA
- 220kV Current Transformer
 - Rated voltage: 220kV, Frequency: 50Hz
 - Secondary winding accuracy classes: 0.2S / 0.5 / 10P / 10P / 10P
 - Burden: 30 / 30 / 50 / 50 / 50VA
 - Transformation ratio: 1000 / 5A
- Control and Monitoring Systems
 - Complete Set of 220kV Line Relay Protection and Automation Panel
 - Complete Synchronous Monitoring Panel
 - Complete Communication Panel
 - Fiber Optic Communication System

2.7 Establishment of the Right of Way

2.7.1 The Mongolia Law on Energy 2001, as amended, states that Governors should take measures to evacuate buildings and facilities constructed within the protection strip of linear energy infrastructure, including measures to remove households, trees, shrubs and they should also take measures to protect the safety zone [referred to as the RoW within this document]. Article 33 of the Law covers the boundaries of network safety zones and states that lines and networks should have established boundaries of their safety zones, within which is prohibited to build any *gers*, housing or building or conduct any activities other than those permitted by the network owners or possessors within such boundaries; it does not state the type of activities that are or are not permitted.

- 2.7.2 Article 33 also requires that Governors of aimags and soums verify sizes of boundary lines in accordance with safety rules for lines and networks. It goes on to state that owners or possessors of trees or shrubs planted or growing within the safety zone are obliged to move or cut them, if the trees and shrubs could cause damage to the network or obstruct its inspection or servicing; and that a state energy inspector or an authorized employee of supplier has the right to enter or to pass through land and premises owned or used by others which are located alongside the safety boundary. In case of failure of an owner to meet its obligations set forth in paragraph 33.3 of this Law, a state energy inspector or an authorized employee of supplier shall take steps to cut or move trees or shrubs, or where not possible to do so, to have the trees or shrubs cut.
- 2.7.3 The Mongolian Government Resolution No. 97 of 18 March 2020 also stipulates the establishment of protection zones for transmission lines, in line with Article 33 of the Law on Energy. It states that the Governor of the aimag, soum, or district will establish this protective zone based on a request submitted by the entity or organization possessing the power grid and the power grid zone map. It also states that a decision (permission) should be obtained from the Governor of the aimag, soum, and district on the location of the power grid protection strip and determination of the protection strip. However, the Resolution also sets out specific safety zones as provided in **Table 2-4** below. The requirements for 220 kV lines are highlighted in yellow.

Table 2-4 Right of Way for transmission lines in Mongolia

Powerline, kV	Unpopulated areas	Populated areas	Substation and distribution infrastructure	Forested areas and Parks
	From the outside of the tower, m		Every direction, m	From the outside of the tower, m
Up to 1kV		1-1.5m		
1- 20kV	10m	2m	10m	2m
35kV	15m	4m	15m	3m
110kV	20m	5m	20m	3m
220kV	25m	6m	25m	4m
330-500kV	10m	30m	30m	5m

- 2.7.4 The Resolution also stipulates that it is prohibited to construct buildings, apartments, homes, fences, or conduct any activities within the protection strip except those permitted by the network owner. Activities that disrupt the operation and regime of the energy line network and equipment in the protective zone are prohibited.
- 2.7.5 No trees and any agricultural plantation are allowed within 25m surrounding substations or any power distribution infrastructure. Owners of trees or shrubs planted or growing within the protective zone shall be obliged to move or cut them, if the former may possibly cause damage to the network or obstruct inspection or maintenance of the powerlines.

- 2.7.6 It is noted that the Resolution does not mention what activities are permitted within the protective zone; but the implication is that permission would be required from the operator and/or the local Governors.
- 2.7.7 The Resolution states that if it is necessary to construct an energy network on land owned or used by others, all costs incurred will be borne by the business entity or organization constructing the network.
- 2.7.8 Article 5.1 states that the implementation of the Regulation will be by the Governors of aimags, soums, and districts, energy regulators and state inspectors, and business entities and organizations that own energy networks.
- 2.7.9 It is also noted that the Resolution requires that, after carrying out earthworks within the protective zone, the area of the protective zone will be restored to its normal condition.

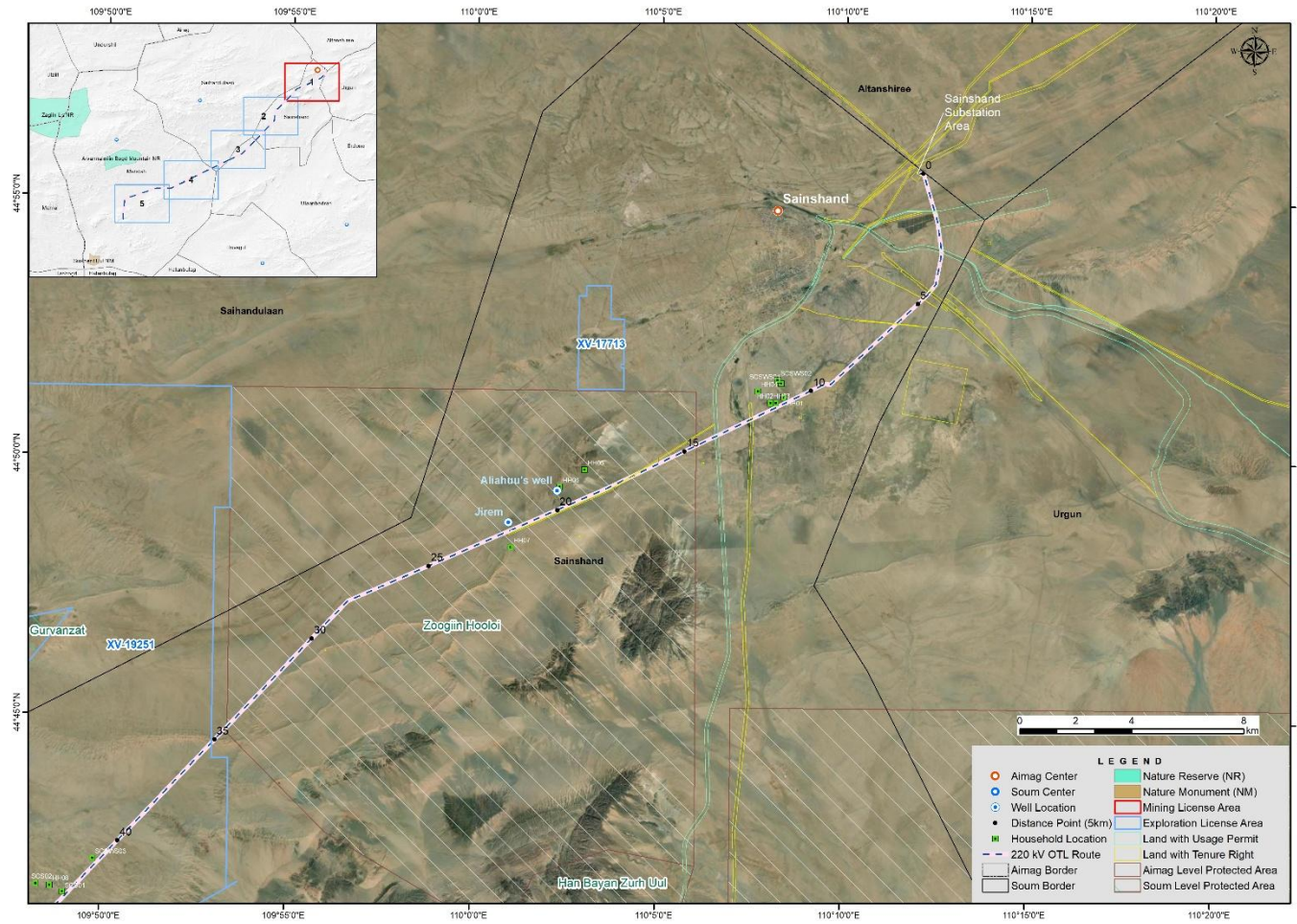
2.8 Land Acquisition

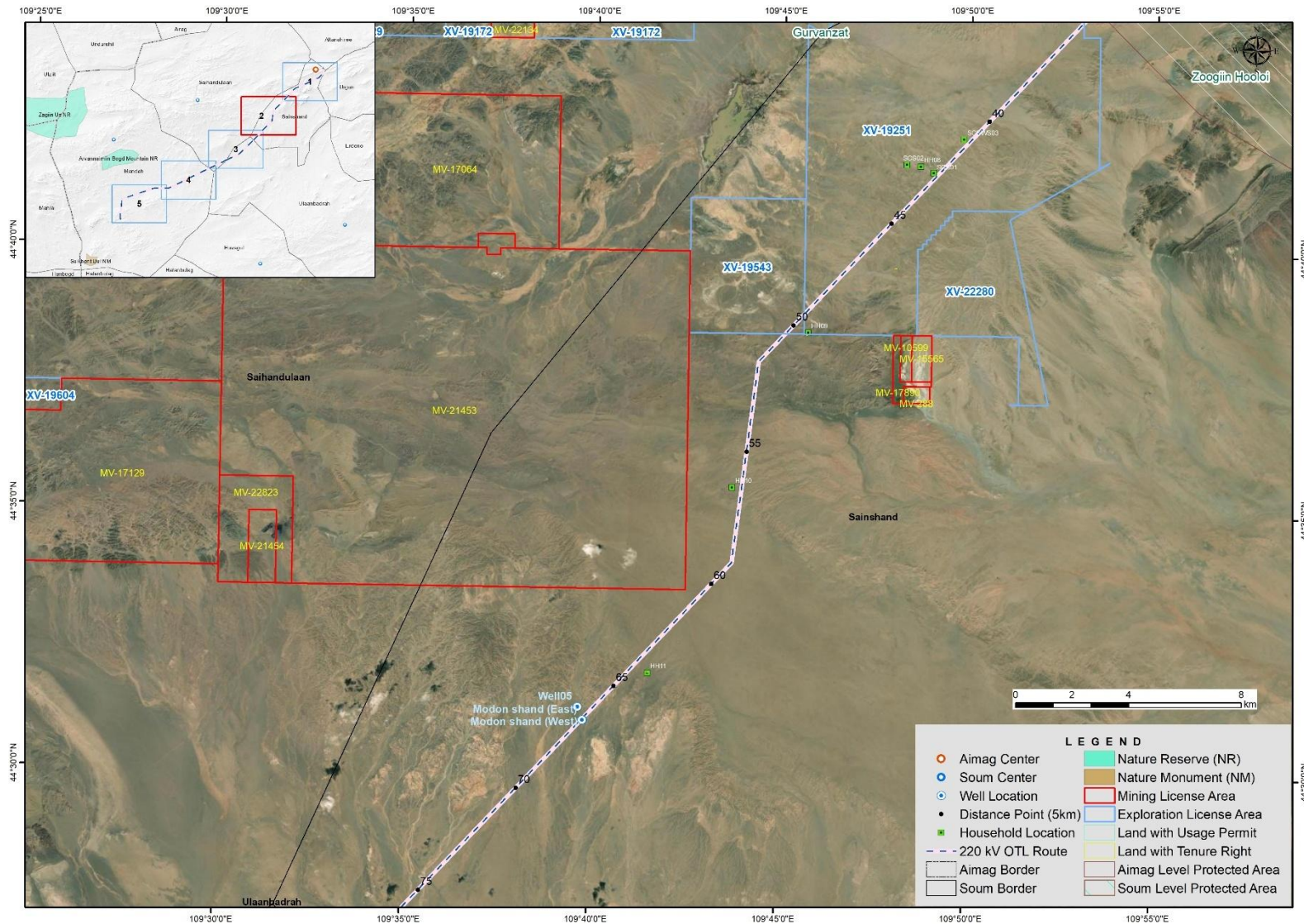
- 2.8.1 To obtain agreement on the preferred route for the OHTL, the design team that identified the route for the MoE, MasterPoint LLC, obtained an approval page with signatures from the following organisations: NPTG, Dornogovi Aimag, Mongolian Railways, National Emergency Management Agency, National Dispatching Center, Baganuur-South East Region Power Transmission, Land Relation, Urban Development Agency and the Dornogovi Branch of the Information & Communication Network.
- 2.8.2 In line with the requirements of Resolution No. 97 of 18 March 2020 (as discussed above), the NPTG will need to obtain a Decree from the relevant Governors at the aimag and soum level for the official permanent transfer of the land to the Project i.e. to the permanent ownership of the MoE. As per EBRD requirements, any land required that affects local herder camps or assets should also be subject to engagement with those households; further details are provided in this report.
- 2.8.3 **Figure 2-12** shows the land uses along the Project route. As of 2025, the following mining licences are applicable:
- Three exploration licences crossed by the route – Ungut to the south of Sainshand (crossing Sainshand and Saikhandulaan soums), Tsagaan tsaviin khudag to the immediate north of the Tsagaan Suvarga mine (in Mandakh soum) and Dovtsog Khudag to the immediate north of the Tsagaan Suvarga (in Mandakh soum).
 - One mining licence, Tsagaan Suvarga mine and Tu'men O'lzii uul | Tsagaan Suvarga to the immediate north of Tsagaan Suvarga –owned by MAK.
- 2.8.4 According to the Mineral Resources and Petroleum Authority (Key Informant Interview (KII) held 8 July 2025), in accordance with the Law on Energy and Government Resolution No. 97 of 18 March 2020, if a power line passes through an area where the resource deposit has already been found and assessed, the project developer (i.e. in this case MoE/NPTG) must coordinate with the company that holds the rights to that resource to obtain a “no objection” for the OHTL route. It is noted that in the KII, it was stated that in their experience, mining companies may have one of two views: some companies will provide a no objection as they see the development positively, as the transmission line enables a local substation to be constructed to support operations; whereas others see the

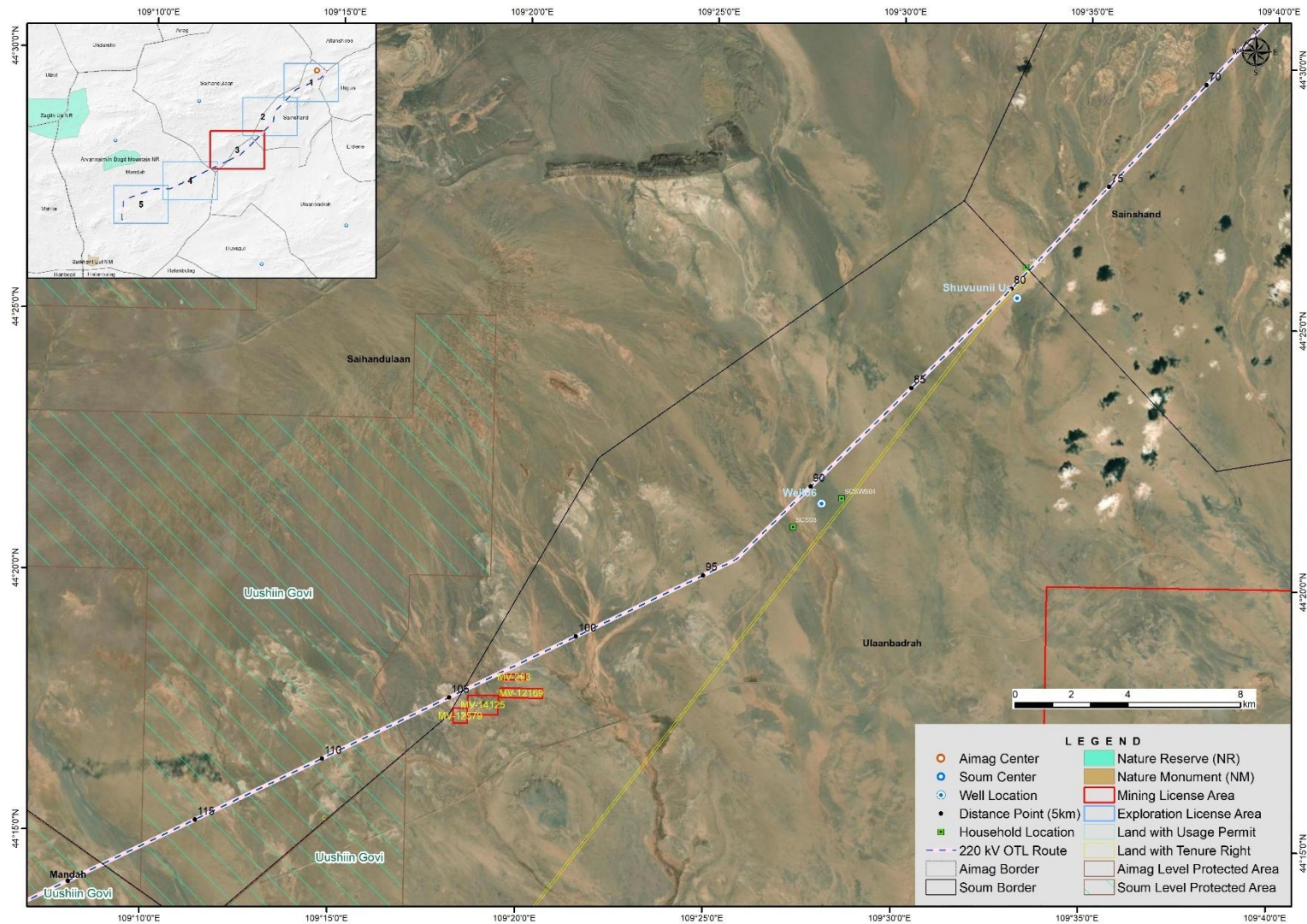
development as a challenge for activities such as blasting. It is understood that to date, the MoE has not entered into negotiations with the companies with the exploration licences crossed by the Project; however, they have liaised with MAK (Tsagaan Suvarga mine and Tu'men O'lzii uul | Tsagaan Suvarga mines).

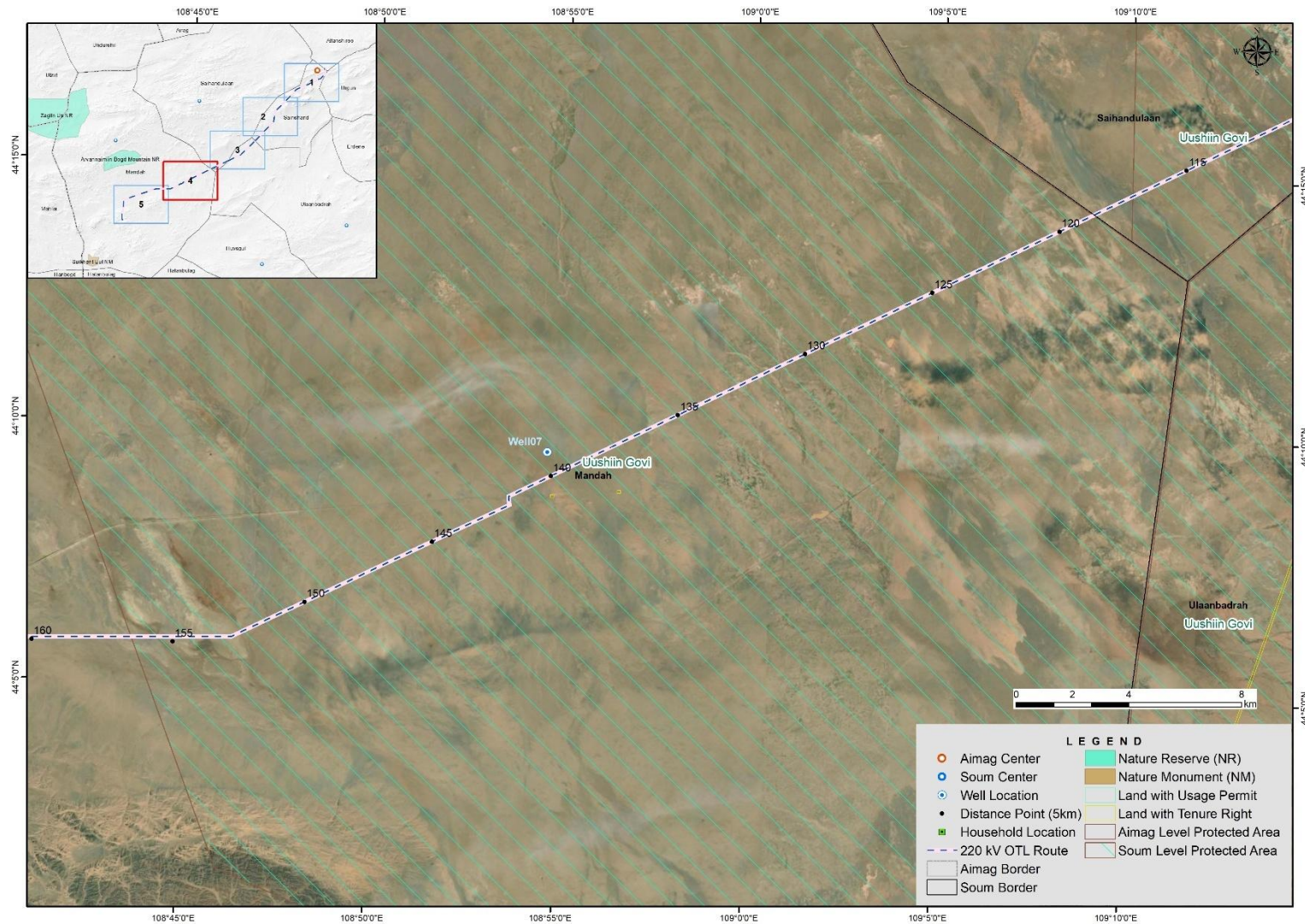
- 2.8.5 It is understood that Ungut exploration licence expires in 2027, the Tsagaan tsaviin khudag in 2049 and the Dovtsog Khudag in 2027. It is noted that boundaries of exploration license may be modified or reduced however, the MoE will still need to consult with those license holders to agree this.
- 2.8.6 According to data provided by the Land Agency in the Project soums, there are several areas that have been identified as land allocated for development, as follows:
- A land parcel allocated to an industrial and technological park. The landholder (Erdenes Tsagaan Suvarga LLC) has not yet commenced any development activities on this site.
 - A land parcel allocated to commercial and public service facilities, centres, and complexes. At present, the landholder, Kh. Saruulbuyan, has not undertaken any development activities.
- 2.8.7 In addition to the above, there are three locally protected areas (LPAs) under aimag designation crossed by the OHTL and one priority conservation area, though Zoogiin Hooloi was released from protection in 2019:
- Zoogiin Hooloi
 - Uushiin Govi
 - Ganzaga Uuliin Urgutgul
 - Priority Conservation Area
- 2.8.8 The LPAs are aimag level designations, therefore the Dornogovi aimag Governor has the authority to grant access over these areas (as set out in **section 2.8.1** above). Further details of these sites are provided in **Chapter 9: Biodiversity Flora and Fauna** and **Chapter 10: Cultural Heritage**.
- 2.8.9 There are no residential structures or other structures within the OHTL route or its RoW, though there are water wells and herder households (and associated *gers*) within a 25m-1km buffer zone either side of the OHTL centreline (2km buffer zone in total).
- 2.8.10 Within the substation sites and 25m around both the existing and proposed substations' connections, there are no buildings or structures (other than the existing substation structures at Tsagaan Suvarga). Further details are provided in **Chapter 16: Land Use, Tenure and Displacement**.

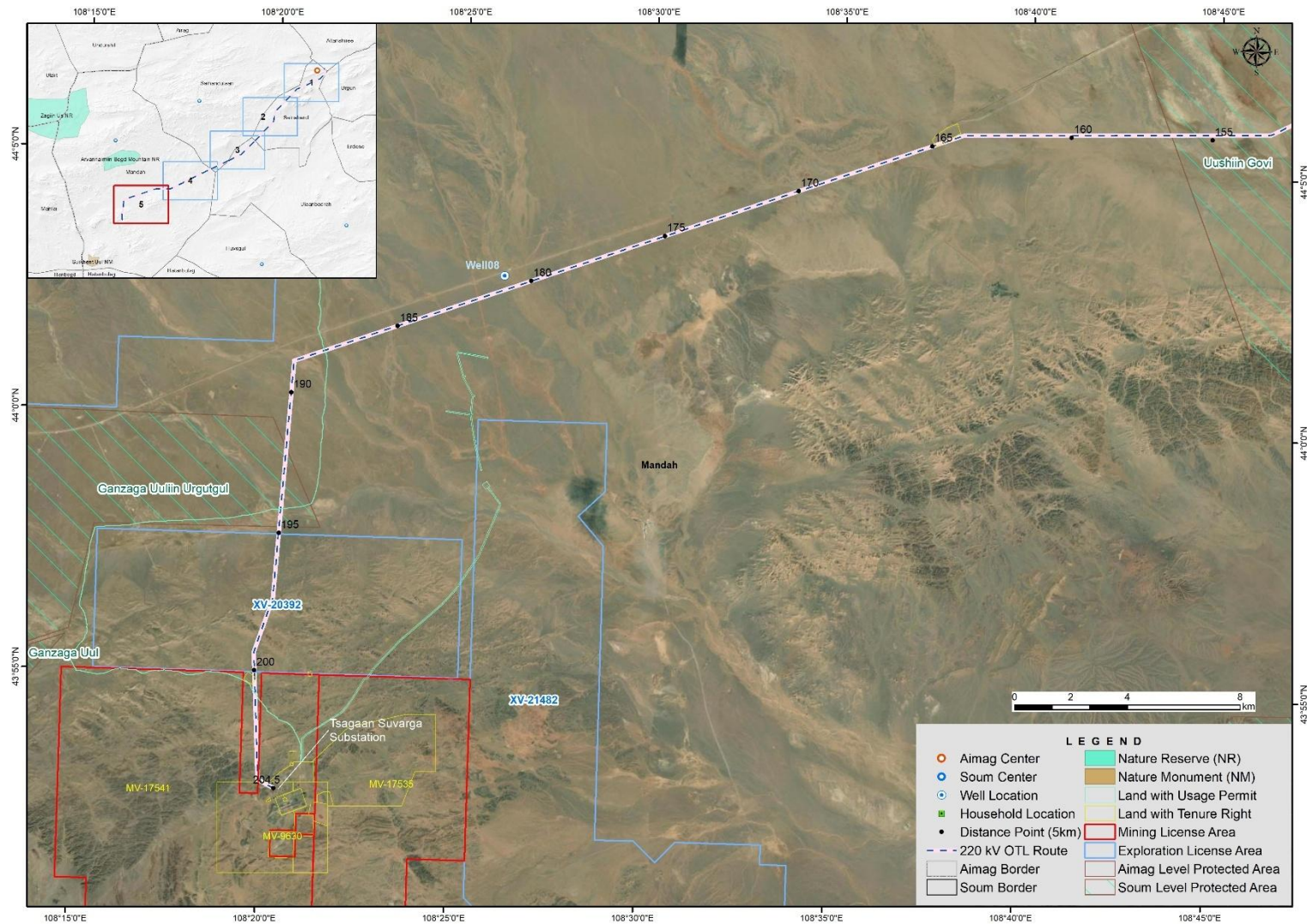
Figure 2-12 Land Uses along the OHTL Route











2.9 Associated Facilities

- 2.9.1 Associated facilities are defined in the EBRD ESP as “facilities or activities that are not financed by EBRD as part of the project but which in the view of EBRD are significant in determining the success of the project or in producing agreed project outcomes. These are new facilities or activities: (i) without which the project would not be viable, and (ii) would not be constructed, expanded, carried out or planned to be constructed or carried out if the project did not exist.”
- 2.9.2 The use of pre-fabricated concrete foundations manufactured in the factory eliminates the need for quarrying. The Tsagaan Suvarga substation already exists and the Sainshand substation is anticipated to have been constructed by the time the Project is under construction. Therefore, at most, limited quantities of sand and aggregates may be required for tower construction and substation bases and will be sourced from local suppliers as needed. Therefore, it is considered there is unlikely to be a requirement for borrow pits or quarries. However, this, together with their location, would be determined by the Construction Contractor. The Construction Contractor is required to select sites based on minimal environmental and social impacts and in accordance with relevant permits.
- 2.9.3 During construction, access to all tower locations will be necessary to perform the civil works, structure erection and stringing of conductors and shield wires. Access will be determined by the Construction Contractor. Where feasible, the Construction Contractor will be obliged to use existing paved roads. Where there are no official roads, during the pre-construction phase the Construction Contractor will be required to identify the route to/from and along the Project route and ensure that this is demarcated for the safety of livestock/herders and other land users, and to reduce environmental damage of using multiple different dirt tracks to the site. During O&M, it would be anticipated that existing roads and paths will be used wherever possible. Once access to the route has been obtained, vehicles should be restricted to driving along the RoW to avoid multiple tracking to/from the OHTL. The use of existing roads is mandatory wherever possible.
- 2.9.4 During construction, the Construction Contractor will need to install site facilities to support the construction activities: Site Offices, storage areas, worker accommodation, parking areas, etc. Whilst this will be determined by the Construction Contractor, the PIU has proposed that a main camp and workers’ accommodation would be located near to Sainshand substation, with smaller camps being used along the OHTL route during the period in which nearby work is completed. As an indicative number, one secondary camp per 100km of route is a standard procedure, therefore around two or three camps are anticipated.
- 2.9.5 No batching plant will be used. Pre-fabricated concrete foundations will be transported to the site.

2.10 Project Phases

- 2.10.1 The MoE has overall responsibility for the delivery of the Project and will be assisted in this role by a PIU Consultant. A Construction Contractor will be appointed to construct the Project, and they will be overseen by an MoE appointed Supervision Engineer.

Pre-Construction

- 2.10.2 It is understood that no further detail design is planned. However, the final position of the individual tower structures will need to be determined by the Construction Contractor, based on factors such as ground conditions, elevation, and distance between towers. The Construction Contractor will therefore need to undertake a detailed topographic, soil geotechnical survey of the RoW and to inform this micro-siting exercise.
- 2.10.3 A pre-construction survey will need to be undertaken to capture video/photo description of any sensitive receptors – which according to current surveys would be well structures and *gers* within a 1km distance from the proposed OHTL centreline as well as any other working areas to be used by the Construction Contractor (e.g. a 25m buffer zone should be included around camps). The purpose of this baseline will be both to (i) verify any changes in the baseline in relation to the baseline set out in this ESIA and to confirm whether additional mitigation measures are required and (ii) to provide a baseline in relation to the construction works, to demonstrate that no additional damage was caused during the construction works so that sites can be “made good” following construction.
- 2.10.4 Tower spotting will need to take place; this refers to the determination of individual sites for the installation of the towers. This will be informed by the above pre-construction survey, confirming that no structures are located within the RoW and any working areas. Where this is the case, adjustment should be made to the tower locations to avoid impacts on any assets; or where this is not possible, sited to minimise impacts.
- 2.10.5 During pre-construction, the MoE will also need to obtain the national EIA permit for the proposed works. This includes the submission of documents to the Ministry of Environment and Climate Change (MECC) to obtain a General EIA (GEIA) then the preparation of a Detailed EIA (DEIA) is developed based on the GEIA. A public consultation period is then undertaken, and once updates have been made, as necessary, to the DEIA, the DEIA is submitted to the MECC for approval. This legislative process is outlined in more detail in **section 4.3.9** of this report. At the time of writing, the required documents for the request of a GEIA have been prepared and submitted to the MECC. It is anticipated that public consultation will be undertaken in Quarter 1 2026 and a DEIA submitted thereafter. The MECC may take a period of around 1-2 months to determine on the DEIA.
- 2.10.6 The MoE will also be responsible for physical and economic displacement reporting. The land acquisition process should fully meet EBRD’s PR 5 *Land Acquisition, Involuntary Resettlement and Economic Displacement*. As such, a LARF has been prepared to report on the activities to date and set out further actions that will need to be taken to meet EBRD requirements. A Resettlement Action Plan (RAP) and/or Livelihood Restoration Plan (LRP) will be required for the detailed design and as necessary, for any temporary land take required by the Construction Contractor that results in

involuntary economic or physical displacement (permanent or temporary). Overall, no physical or economic displacement has been identified to date with mitigation measures in place however, given the transient nature of herder camps this will need to be confirmed prior to construction on site and taking into account the final tower locations.

- 2.10.7 Prior to construction, access tracks will need to be established and clearly demarcated to avoid unnecessary damage to vegetation and to manage potential health and safety impacts associated with herders and livestock.
- 2.10.8 A Construction Contractor will be selected by the MoE based on a tender process. The ESIA Disclosure Package, including this, will form part of the contract requirement for the Construction Contractor. Further details on the approach to this are provided in the stand-alone **ESMP**.

Construction Phase

- 2.10.9 This ESIA and its associated documents, including the ESMP, will form part of the tender documentation for the Construction Contractor's contract. The Construction Contractor shall provide sufficient staffing to manage the environmental and social performance of the Project. The capacity of the Construction Contractor to meet these obligations will be reviewed by the PIU Consultant and the Supervision Engineer. Prior to construction, the Construction Contractor will have in place a community grievance mechanism that meets the requirements of the Project (i.e., EBRD PRs). A labour grievance mechanism is required within the Construction Contract organisation, to manage labour grievances during Project construction.
- 2.10.10 At the time of writing, no information is available on whether the Construction Contractor will use workers' accommodation camps or the use of other temporary sites such as works areas, compounds and haul/access roads. The PIU has proposed that a main camp and workers' accommodation would be located near to Sainshand substation, with smaller camps being used along the OHTL route during the period in which nearby work is completed. As an indicative number, one secondary camp per 100km of route is a standard procedure, therefore around two or three camps are anticipated.
- 2.10.11 Given the precise location of these camp areas and compounds is not currently known, the Construction Contractor will be required to select sites based on minimal environmental and social impacts, avoiding, or if this is not possible, minimising, economic or physical displacement, in line with the requirements set out in this ESIA, the ESMP and the LARF. The Construction Contractor will also be required to assess final sites chosen so that, where necessary, additional mitigation measures can be applied to reduce adverse impacts. The Construction Contractor will be required to:
 - (i) undertake environmental and social screening of any temporary sites (e.g., workers' accommodation camp, lay down areas, etc.), to the approval of MoE/PIU and EBRD;
 - (ii) develop land entry and land exit procedures/protocols to facilitate land/site hand-over at the end of construction;
 - (iii) pre-construction surveys, as outlined in the ESMP; and
 - (iv) develop a detailed set of management plans that form the Construction ESMP (CESMP).

Construction Programme

- 2.10.12 The Project tendering and contract award programme is not currently known. Construction is currently anticipated to take approximately 24 months starting in 2026. This construction programme allows for pre- and post-construction activities such as mobilisation, enabling works, testing and commissioning. A detailed construction programme will be prepared by the appointed Construction Contractor.

Key Construction Activities

- 2.10.13 Details of the workforce and equipment required during the construction phase will be determined by the Construction Contractor once appointed. However, typical site installation and preparatory work for overhead transmission line projects includes:

- Development of the lay down areas, work compounds and workers' accommodation camp, including power generation where required;
- Mobilisation of supplies and materials necessary for construction (vehicles, trucks, construction equipment) to site;
- Temporary signage and the setting up of deviations where necessary;
- Levelling and excavation of pole and tower foundations - topsoil will be stripped from areas of excavation prior to any further excavation which may be required. The proposed pole/tower base areas will be levelled; where possible, cut soil will be used for levelling the site to design levels.
- Erection of towers/poles - the towers will be erected with cranes;
- Stringing of lines - once the towers/poles are erected, the conductors and shield wires will be strung and appropriately 'tensioned' to provide the minimum clearance between ground level and the wires. In most cases, conductors will be strung by manual labour. When oversailing properties, overhead line conductors will be strung between the towers with scaffolding;
- Civil works and installation of substation equipment at both substations;
- Temporary power generation;
- Waste management; and
- Testing and first operation of equipment - once the poles/towers have been erected and the lines strung, tests and measurements will be carried out to ensure that the line performs as expected. Minimum distances such as clearance between the lines and the ground level shall be checked and the lines shall be 'tensioned' as per specifications.

- 2.10.14 The types of equipment that will be required includes:

- Tractor 96/130
- Tractor-mounted crane
- Tractor 30-2621
- Electric winch
- Machine with ladder
- Conductor tensioning/filling unit
- Bulldozer
- Truck crane 5 tons
- Truck crane 6.3 tons
- Truck crane 16 tons

- Truck crane 10 tons
- Automobile / Vehicle
- Cargo truck
- Welding machine
- Compressor
- Demolition hammer
- Drilling machine
- High-productivity excavator (0.5m³)
- Service vehicle
- Bulldozer with 140 horsepower

Materials Use

- 2.10.15 The construction phase will result in the consumption of natural and non-renewable resources. Limited quantities of sand and aggregates may be required for tower construction and substation bases and will be sourced from local suppliers as needed. The volumes are not anticipated to be such to reduce available materials supply.
- 2.10.16 The PIU also confirmed that materials used for the towers are typically imported from China, supplemented by select items sourced from the local market. Specific procurement details will be clarified during the tender process.

Excavated Materials

- 2.10.17 The majority of the material generated during the construction phase is anticipated to be excavated spoil. The main activity that will generate excavated spoil is the excavation of soils for laying the tower foundations. An estimate of 10m x 10m has been used to account for the area of land underneath each tower. However, not all of this area will need to be excavated, therefore based on the foundation data available the total potential excavated volumes has been calculated in **Table 2-5**. The AP-6 is installed above ground, and therefore no excavation wastes are anticipated from their installation.

Table 2-5 Excavation amounts based on tower foundation specifications

Foundation System	Quantity	Number of feet	Depth, m	Area, m	Estimated excavated volume m ³
Φ3-2	644	4 x 644	2.5	1.8 x 1.8	20,865.6
Φ5-AM	46	4 x 46	3	2.7 x 2.7	4,024.08
TOTAL					24,889.68

- 2.10.18 Proposed waste management methods for excavated material (other than removal by truck to landfill) include material to be used as back fill, left on-site and graded to levels; and materials to be recycled (on or off site) or screened and re-used (on or off site).
- 2.10.19 Undertaking such on/off-site reuse and recycling reduces the amount of waste leaving site. This in turn will reduce the amount of site traffic for trucks removing material and reduce the burden on limited local waste management infrastructure. It is anticipated that all the topsoil removed will be re-used on and around the site. However, the intention should be to avoid stockpiles that are then left in situ as appears to have happened in relation to the railway construction in the Project Area.

Waste Management

- 2.10.20 The Project will generate solid non-hazardous and hazardous wastes throughout the construction phase such as construction wastes (such as construction debris, packaging waste, waste wood and metals) and general domestic waste including sanitary and food waste, organic material, and hazardous wastes (e.g., oils and lubricants, paint and emulsion and fuels, small amounts of machinery maintenance materials such as oily rags, used oil filters, used oil, and spill clean-up materials from oil and fuel spills).
- 2.10.21 Municipal solid waste (MSW) will be generated from the site-based workforce during construction, in particular if a workers' accommodation camp is used. MSW will be taken to a licensed landfill.
- 2.10.22 The generation, storage and disposal of waste can have an adverse effect through degradation of the environment and reduction in landfill capacity, and through nuisance and health and pollution risks to workers, the local community and other receptors such as soils, water, flora and fauna.
- 2.10.23 Sufficient detail is not currently available on volumes to calculate waste rates. Generally, in Mongolia construction waste is discharged at this point and no waste is recycled. However, the Project should strive for recovery rates of 60% as a minimum. If careful planning and management measures are used, it will aid the prevention, reuse and recycling the materials where possible and will minimise the overall amount of material disposed of in landfill.
- 2.10.24 Minimisation of potential waste impacts during construction will therefore depend on the implementation of appropriate procedures, protocols and monitoring of materials being delivered, handled and stored prior to disposal. These measures are set out in the ESMP and will be followed by the Construction Contractor.

Operational and Maintenance Phase

Design Life

- 2.10.25 It is anticipated that the Project would be in operation in 2-28/9. The operational life of a tower is typically around 60 years. The conductors, insulators and fittings on high-voltage overhead lines normally last for about 40 years. Therefore, the towers and overhead lines need to be refurbished periodically in order to maintain the network and ensure it continues supplying electricity safely and securely.

Operation and Maintenance

- 2.10.26 The operation and maintenance of equipment will be conducted based on accepted international standards and in accordance with national legislation and practices as set out by the MoE. The main activities to be carried out during the operation of the Project include: operation of the substations, surveillance of the condition of the overhead lines, towers and RoW; routine, planned and emergency maintenance and repairs; and vegetation control. Public safety signs will be provided at substations and at the towers to indicate the danger they pose to the general public.
- 2.10.27 Routine maintenance to ensure the integrity and safety of the OHTL will include:
- Foot patrols: routine physical examinations of the OHTL and its component parts to ensure safety, security and integrity of the line;
 - Security patrols: to check on segments of the line close to populated areas for signs of vandalism, branches of trees interfering with lines, tampering, and the general security of the lines. This should ensure early detection of and rapid response to acts of vandalism and to rectify such situations as promptly as possible; and
 - Tower auditing and repairs: annually 10% of all towers should be thoroughly examined. The detection and tightening of loose bolts on supports and hardware can reduce premature wear and indicate for replacement of worn components before failure.
- 2.10.28 Planned maintenance programmes should be carried out on the OHTL in accordance with manufacturer equipment specifications or due to the need to repair equipment. Some of the activities carried out under planned maintenance will include:
- Replacement of the insulation of sections of the overhead line;
 - Treatment of rust and re-painting of tower components;
 - Replacement of conventional bolts and nuts with anti-theft fasteners on older line sections;
 - Rehabilitation of access roads and tracks; and
 - Inspection and maintenance of switchgears and protection systems as well as any other equipment scheduled.
- 2.10.29 Emergency maintenance describes activities relating to correction of unplanned events. This could include spectrum of minor faults (e.g. insulator failure) to major defects such as tower failures.

Wastes

- 2.10.30 The nature of route O&M and repair works during the operational phase is unknown at this stage, therefore the volume of expected operational waste cannot be calculated. However, the anticipated waste streams are likely to be both non-hazardous/ inert and hazardous, as follows:
- Oil and lubricants
 - Waste electrical and electronic equipment (WEEE)
 - MSW at substations

- 2.10.31 Maintenance and repair works may also require workers to be based on-site (daily) for an extended period of time, requiring temporary welfare facilities. Operational waste types that are likely to be generated by maintenance staff are:
- Organic waste
 - Paper
 - Plastic
 - Glass
 - Metal
 - Other (hazardous or non-hazardous)
- 2.10.32 Uncontrolled MSW may also arise along the OHTL route.
- 2.10.33 Waste management procedures for O&M should include:
- Provision of regular training for staff on recycling and waste reduction and the practices necessary to minimise waste and facilitate good practice waste management.
 - Provision of a dedicated area for the storage of hazardous waste arisings (including clinical waste, batteries and WEEE).
 - Recycling of vehicle and plant maintenance waste i.e. oil or grease contaminated filters and recycling or re-use of empty chemical containers or bags.
 - Provision of a dedicated area for the storage of hazardous waste arisings. Removal of hazardous waste by a specialist licensed company.

Decommissioning

- 2.10.34 In terms of decommissioning of the Project in the future, since this would take place in excess of 30 years' time, it is not possible at present to identify with accuracy all decommissioning requirements. Ultimate responsibility for decommissioning will reside with the MoE and NPTG. In general management and mitigation during decommissioning will follow the same requirements as during construction. Before any closure and decommissioning activities are undertaken, a formal assessment of the requirements should be undertaken, based on the design at the point of decommissioning and potential issues which may arise at that time and will require management and mitigations. The potential issues and associated management and mitigation measures should be encompassed in a Decommissioning Plan, approved by the appropriate regulatory parties. Machinery, steel and dismantled materials would be recycled where possible and disposed of at licensed disposal sites.

2.11 Project Proponent and Responsible Organisations

- 2.11.1 A summary of the relevant responsible bodies and relevant energy organisations is shown in **Table 2-6**.

Table 2-6 Project Proponent and Other Relevant Project and Energy Organisations

Organisation	Project Function	Report To
MoE	Loan beneficiary, responsible for energy sector policy and for associated infrastructure development. MoE is responsible for developing and implementing the Project as well as for all land acquisition and O&M activities.	GoM
Project Implementation Unit (PIU) Consultant	Set up within the MoE to help deliver Project implementation.	MoE
Local Provincial (aimag) governments	Support MoE in all permanent and temporary acquisition of land for the Project. Liaise with local communities.	MoE
Regional Departments of various Ministries	Project approval, issue of permits for various construction works.	Ministries
EBRD	Funding of Project.	EBRD Board
Construction Contractor	Responsible for constructing the Project to tender specifications.	MoE
Supervision Engineer	During construction, the MoE will appoint a Supervision Engineer to assist the MoE in the selection of the Construction Contractor and to monitor the Construction Contractor on site.	MoE
NPTG	Will be responsible for operation and maintenance of the OHTL.	MoE
O&M Contactors	Contractor for various O&M activities.	MoE
Energy Regulatory Commission	Regulates the generation, transmission, distribution, dispatching and supply of energy, determining prices and tariffs, and implementing policy on energy reserving.	GoM

3 Consideration of Alternatives

3.1 Introduction

- 3.1.1 This chapter outlines the main alternatives to, and within the Project, such as alternative route alignments, together with the principal reasons for proceeding with the options selected for the Project.
- 3.1.2 Alternatives include consideration of different means to meet the purpose and requirements of Project activities, and may include alternatives, in the context of the available information, to:
- a) **the type of activity to be undertaken** - this requires a change in the nature of the proposed activity; this includes the 'do nothing' option i.e., the option of not implementing the activity;
 - b) **the site location and layout**- alternative locations for the entire project proposal, or for components of the project proposal and the different spatial configurations of an activity on a particular site; and
 - c) **the process and operational aspects of the activity** - also referred to as technological or equipment alternatives; the purpose of considering such alternatives is to include the option of achieving the same goal by using a different method or process.

3.2 Requirement for Consideration of Alternatives

- 3.2.1 The EIA Directive states that an EIA should include:
- "...a description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment".*
- 3.2.2 EBRD PR1 states that an ESIA should include:
- "...an examination of technically and financially feasible alternatives [...], including the non-project alternatives, and document the rationale for selecting the particular course of action proposed".*

3.3 The Do-Nothing Scenario

- 3.3.1 A 'do-nothing' scenario has been considered as an alternative to the Project. In this case, not developing the Project would mean that the future Sainshand substation would not connect to the existing Tsagaan Suvarga substation. This would prevent the provision of a circular transmission network, which is intended to substantially improve reliability and resilience of the transmission network. This improved energy network is particularly important for many of the key development projects occurring across the Gobi region. Development of the Project would contribute to the goals of the Government of Mongolia, to improve supply and efficiency of energy generation, transmission and distribution networks.

- 3.3.2 In general, if the Project is not constructed the regional energy connectivity and economic development will be more likely to stagnate and opportunities to improve quality of life and reduce environmental impacts will be missed.
- 3.3.3 Conversely, the potential negative impacts associated with the Project would be avoided in a 'do-nothing' scenario. However, given the proposed location of the OHTL and taking into account the implementation of mitigation measures, the social, economic, and health and safety benefits of the Project are expected to outweigh any adverse impacts.

3.4 Alternatives Sites

- 3.4.1 As identified earlier in this report, the MoE did not undertake a feasibility study for the Project; works were progressed directly to detailed design. The route selection process was set out on the detailed design report. According to the PIU, Master Point LLC undertook a field visit between August 15–25 2021. According to the report and liaison with the MoE and PIU, based on the field survey, an optimal route was selected with turning points determined through geodetic measurements. No alternatives were considered.
- 3.4.2 Key considerations in the selection of the route included:
- Routing through less rugged terrain (e.g., low hills, open plains, sand dunes, ravines, springs, lakes);
 - Avoiding encroachment on mining lease areas and privately or corporately owned property; and
 - Minimising alignment along the direct axis connecting Tsagaan Suvarga substation to the future Sainshand substation.
- 3.4.3 To agree to the preferred OHTL route, the design team that identified the route for the MoE, MasterPoint LLC, obtained an approval page with signatures from the following organisations: NPTG, Dornogovi Aimag, Mongolian Railways, National Emergency Management Agency, National Dispatching Center, Baganuur-South East Region Power Transmission, Land Relation, Urban Development Agency and the Dornogovi Branch of the Information & Communication.
- 3.4.4 It is understood that this did not include discussions with the local communities or herders. It is acknowledged that the Project Area has little development and does not pass near to any local communities and therefore, that a route looking at localised impacts rather than multiple alternatives may be appropriate. Whilst no structures have been identified as part of the ESIA within the RoW, there are 16 herders camps (winter, summer and autumn) belonging to 12 households within a 1km buffer each side of the OHTL route. Further engagement on the route should be undertaken with these households prior to the finalisation of the route.
- 3.4.5 As mentioned earlier, according to the Mineral Resources and Petroleum Authority (KII held 8 July 2025), the MoE as the developer will be required to negotiate with license holders to obtain a “no objection” for the OHTL route. To date, no agreement has been reached with the license holders of the sites crossed by the Project route.

- 3.4.6 In addition to mining licences, there are three LPAs and one Priority Conservation Area crossed by the OTHL:
- Zoogjiin Hooloi
 - Uushiin Govi
 - Ganzaga Uuliin Urgutgul
 - Priority Conservation Area
- 3.4.7 These are owned at the aimag and soum level and therefore, the route has been approved at this level to date. Further details on the ecological impacts are addressed in **Chapter 9: Biodiversity, Flora and Fauna**.
- 3.4.8 As part of this ESIA, the route has also been assessed, and a re-routing is proposed to avoid sensitive ecological features at the western end of the transmission line (between 165km and 190km approximately). Where the current proposed route deviates from the railway line for approximately 22km, it is proposed that the route is adjusted to continue along the railway line, until a crossing of the rail line is required. The alternative route is demonstrated in Figure 3-1 below, between pylon numbers 139 and 210; this alternative does not result in additional turning points however avoids habitat of good condition and within 100m of the ephemeral pond that has the potential to support high numbers of birds (when wet) and therefore would increase bird collision risk. At the time of survey there were no known herder households in this location and given the proposal to re-locate the route closer to existing infrastructure, the impacts of this are considered to be minimal; however, this should be ground truthed if the proposed adjustment is agreed.

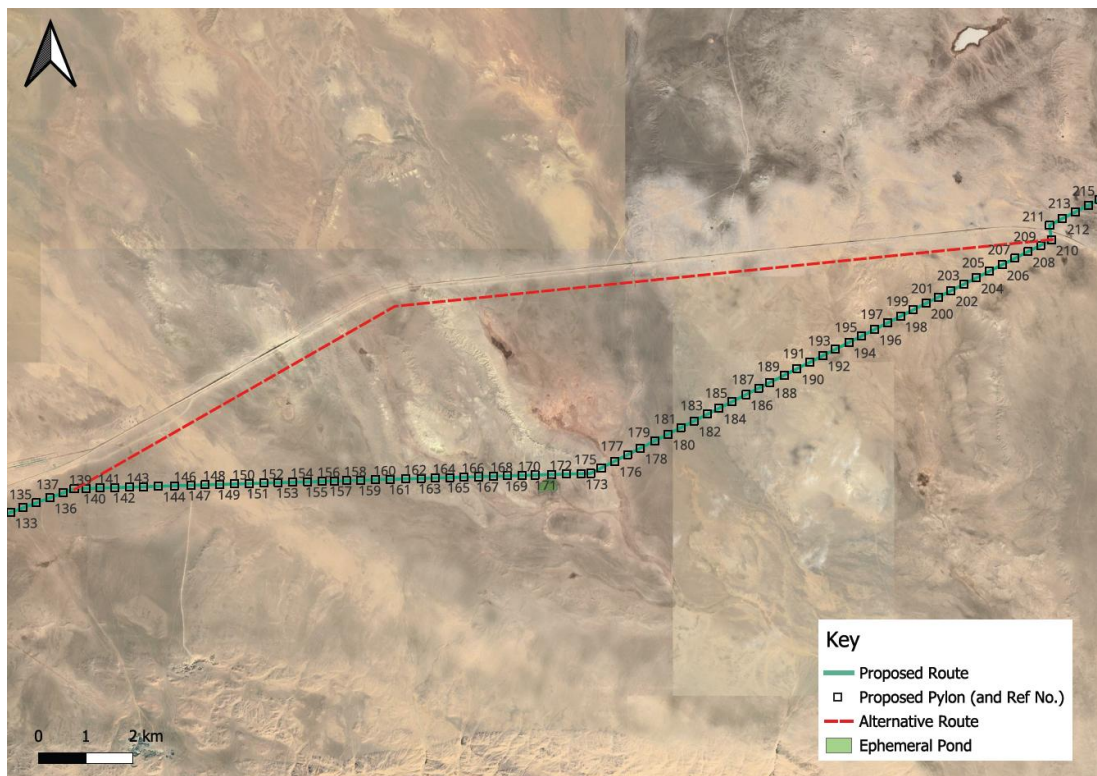


Figure 3-1 Recommended Route Alignment Adjustment

- 3.4.9 In addition to the above, individual tower spotting will need to take place pre-construction to optimise the current alignment at a micro-siting level; this refers to the determination of individual sites for the installation of the towers. This will be informed by a pre-construction survey, confirming that no structures are located within the RoW and any working areas. Where this is the case, adjustment should be made to the tower locations to avoid impacts on any assets; or where this is not possible, sited to minimise impacts.
- 3.4.10 The final route should take into account:
- Herder household engagement for those within 1km of the proposed OHTL route
 - Final agreement with mine licence holders
 - Sensitive ecological areas – see **Chapter 9: Biodiversity, Flora and Fauna**
- 3.4.11 With respect to the substations, the most logical option is to use land within the existing Tsagaan Suvarga substation and within the future Sainshand substation. From an economic point of view, this is the cheapest option, both in terms of the cost of construction and subsequent operation and maintenance but also reduces the need for additional land take and potential additional environmental and social impacts.

3.5 Process and Operational Aspects

- 3.5.1 Two main options exist for transmission lines, either overhead lines or underground lines. The major advantage of overhead lines is that they are generally cheaper than underground lines (as much as up to 2.5 times cheaper). Overhead lines tend to have a longer lifespan, shorter outage durations (as faults are easier to identify and repairs are easier to address). Overhead lines can also more readily withstand overloads. Overhead power lines are more easily tapped, rerouted or modified to serve customers. Such modifications to underground power lines are more expensive because of the inability to readily access lines or relocate sections of lines.
- 3.5.2 Conversely, overhead lines have a higher visual impact and can be more susceptible to damage such as high winds and ice-loading conditions from extreme weather. Underground options provide less risk to the public (in terms of potential illegal access), can be more reliable (i.e. fewer short and long-duration interruptions to supply) and have less voltage drop as reactance is lower. However, underground lines are more difficult to modify after the cables have been installed. Given the precedence for overhead lines in Mongolia, the low level of development in the Project Area and the cost, overhead lines have been selected as the preferred option.
- 3.5.3 In terms of single or double circuit systems and connections, there is no alternatives assessment available. To provide for enough system reliability a substation must be connected to at least two transmission lines: one incoming and one outgoing. Improving transmission system interconnections is one of the priority tasks of the Mongolian energy sector development and therefore, use of a double circuit systems meets the criteria to make the transmission network more reliable.
- 3.5.4 In terms of the material for the transmission tower/pylon/poles that can be used, options include wood, concrete and steel.
- Wooden poles are suitable for relatively shorter spans and lower voltages. They are also cheap,

however have less strength than steel or concrete poles, however, would not be suitable for the length or voltage of the Project line.

- Steel towers possess greater mechanical strength, can withstand most severe climatic conditions, have a longer life span, and allow for a greater span between poles to be used than wood poles. Steel poles can be fabricated with uniform dimensions and conformance to international specifications and tolerances. However, steel can corrode and therefore needs regular maintenance.
- Reinforced concrete poles or towers have greater mechanical strength, a longer life span and permit a longer span between poles than either wooden or steel poles and require little maintenance. Prestressed concrete poles have consistent material properties throughout their length. They also maintain their strength throughout service. The main disadvantage is their weight, which results in high transport costs and difficulty in working in less accessible areas.

3.5.5 Steel is typically used for 220kV transmission lines and therefore has been selected for this Project.

3.5.6 The structure of the tower or pylon used depends on whether a single or double circuit is being used, the terrain and whether or not the purpose of the structure is suspension, tension, terminal (at the end of the line) or transposition. Different types of tower structure have been identified to address the terrain and positioning of the line. Optimisation of the overhead line design, to be undertaken by the Construction Contractor, may identify other areas where different towers could be employed.

4 Standards, Legislative and Policy Context

4.1 Introduction

- 4.1.1 The Project is subject to the environmental requirements of both Mongolia and the EBRD. The policy, legal and institutional framework relevant to the Project, covering the EBRD requirements and the Mongolian administrative framework and national legislation, standards and guidelines are discussed in turn below.

4.2 EBRD Performance Requirements

Environmental and Social Policy

- 4.2.1 The EBRD's Environmental and Social Policy (ESP) and related Performance Requirements (PRs) guide the EBRD's commitment to promoting "*environmentally sound and sustainable development*" in the full range of its investment activities. The 2019 Policy is relevant to this Project and aims to ensure that issues such as environmental and social sustainability, the rights of affected workers and communities and compliance with relevant regulatory requirements and Good International Practice (GIP) are built in at every relevant stage of the project cycle.

- 4.2.2 The ESP requires a Project to comply with the relevant PRs, relevant EU standards, and national law.

Performance Requirements

- 4.2.3 The PRs provide a solid base from which the sustainability of business operations can be delivered. Where possible, projects should avoid adverse impacts on workers, communities, and the environment. If avoidance is not possible, negative impacts should be reduced, mitigated or compensate for, as appropriate. The PRs identified as relevant to the Project are summarised in **Table 4-1**. PR9 Financial Intermediaries is not relevant as it does not apply to this Project. PR7 is not considered relevant as there are no Indigenous Peoples in the Project Area, or indeed Mongolia.

Table 4-1 Summary of EBRD Performance Requirements and their Relevance to the Project

Performance Requirement	Summary and Objectives	Areas Covered	Relevance and Compliance
PR1: Assessment and management of environmental and social risks and impacts	<p>Summary This PR outlines the responsibilities of the client in the process of assessing the potential environmental and social risks and impacts associated with the Project and developing and implementing procedures for managing and monitoring these risks and impacts.</p> <p>Objectives</p> <ul style="list-style-type: none"> Identify and assess environmental and social risks and impacts of the Project; Adopt a mitigation hierarchy approach to address environmental and social risks and impacts from project activities on workers, affected communities and the environment; Develop an environmental and social management system (ESMS) commensurate to the environmental and social risk impacts of the Project in a manner consistent with the relevant PRs; and <p>Promote continuous improvement of the client's environmental and social performance through the effective use of management systems.</p>	<ul style="list-style-type: none"> ESIA Environmental and Social Management System (ESMS) Environmental and Social Policy Environmental and Social Management Plan (ESMP) Organisational capacity and commitment Supply chain management Project monitoring and reporting 	<p>The project comprises the construction of a new overhead transmission line approximately 204km in length. This meets the criteria for Category A projects in accordance with Appendix 2 of the ESP 2019, and as such, this Project is classed as a Category A project.</p> <p>As required under EBRD requirements, for Category A public sector projects, there is need for a comprehensive ESIA, followed by full public disclosure for a minimum period of 120 days.</p> <p>This document presents the ESIA for the Project.</p>
PR2: Labour and working conditions	<p>Summary This PR recognises that for clients and their business activities, the workforce is a valuable asset, and that good human resources management and a sound worker-management relationship based on respect for workers' rights, including freedom of association and the right to collective bargaining, are key ingredient to the sustainability of business activities.</p> <p>Objectives</p>	<ul style="list-style-type: none"> Human resources policies Working relationships Child labour Forced labour Non-discrimination and equal opportunity 	<p>This PR is mainly applicable to the construction phase of the Project when additional suppliers and workers will be employed.</p> <p>It is also relevant to maintenance works in the O&M phase.</p> <p>The labour and working conditions impact of the Project have been assessed in this ESIA.</p>

Performance Requirement	Summary and Objectives	Areas Covered	Relevance and Compliance
	<ul style="list-style-type: none"> • Respect and protect the fundamental principles and rights of workers; • Ensure fair treatment, non-discrimination and equal opportunities of workers in accordance with the decent work agenda; • Establish, maintain and improve a sound worker-management relationship; • Ensure compliance with national labour and employment laws and any collective agreements to which the client is a party; • Protect women and men at work, including vulnerable workers such as young workers, persons with disabilities, migrant workers and refugees, workers engaged by third parties and works in the client's supply chain; • Prevent the use of forced labour and child labour (as defined by the International Labour Organisation (ILO)); and <p>Ensure that accessible and effective means to raise and address workplace concerns are available to workers.</p>	<ul style="list-style-type: none"> • Workers' organisations • Wages, benefits and conditions of work • Worker accommodation • Collective dismissals • Grievance mechanism • Non-employee workers • Supply chain 	<p>The ESMP identifies the requirement for a Labour Management Plan and Labour Grievance Mechanism.</p>
PR3: Resource efficiency and pollution prevention and control	<p>Summary This PR outlines a project-level approach to climate impacts and greenhouse emissions, resource management and pollution prevention and control. This PR also recognises the concept and practice of Circular Economy and the importance of using best available techniques and good international practice to optimise resource use and efficiently prevent and control pollution.</p> <p>Objectives</p> <ul style="list-style-type: none"> • Adopt the mitigation hierarchy approach to addressing adverse impacts on human health and the environment arising from the resource use and pollution released from the project; • Avoid, minimise and manage project-related greenhouse gas (GHG) emissions; 	<ul style="list-style-type: none"> • Resource efficiency • Pollution prevention and control • Greenhouse gases <p>Resource Efficiency</p> <ul style="list-style-type: none"> • Water • Waste <p>Pollution Prevention and Control</p> <ul style="list-style-type: none"> • Greenhouse gases (GHG) • Safe use and management of 	<p>Construction works may give rise to pollution through increased traffic, general construction practices, and construction wastes.</p> <p>During operation, the Project will give rise indirectly to GHG from the power supplies required to operate the transmission line.</p> <p>The potential pollution impacts and resource use of the Project have been assessed in this ESIA.</p> <p>The ESMP identifies measures for resource efficiency and pollution prevention to be implemented during the Project.</p>

Performance Requirement	Summary and Objectives	Areas Covered	Relevance and Compliance
	<ul style="list-style-type: none"> Avoid, minimise and manage the risks and impacts associated with hazardous substances and materials, including pesticides; and <p>Identify, where feasible, project-related opportunities for resource efficiency improvements.</p>	<p>hazardous substances and materials</p> <ul style="list-style-type: none"> Pest management 	
PR4: Health, safety and security	<p>Summary</p> <p>This PR recognises the importance of managing health, safety and security risks to workers, project-affected communities and consumers associated with project activities, in accordance with the hierarchy of risk control. The client has the primary responsibility to provide safe and healthy conditions for their workers.</p> <p>Objectives</p> <ul style="list-style-type: none"> Protect and promote the health, safety and security of workers, by ensuring safe, healthy and secure working conditions and implementing a management system, appropriate to risks associated with the project; and <p>Identify, assess, and manage health, safety and security risks to project-affected communities and consumers during the project life cycle from both routine and non-routine activities.</p>	<p>General requirements for health and safety management</p> <ul style="list-style-type: none"> Occupational health and safety Community health and safety Gender-Based Violence Specific requirements for health and safety management Infrastructure, building and equipment design and safety Hazardous materials safety Product safety Health and Safety Risks in Community Services Traffic and road safety Natural hazards Exposure to disease 	<p>The Project may give rise to adverse impacts on community health, safety and security during construction, for example, increased construction vehicles along roads and/or tracks, increased dust due to construction activities and risk of construction activities at height.</p> <p>During operation, the Project will have a positive impact in relation to improved reliability of electricity transmission, having an indirect effect on local businesses and users of CES.</p> <p>Operation of high voltage lines may result in EMF risks and risks of electrocution. Maintenance activities may also give rise to pollution risk and wastes.</p> <p>The health, safety and security risks of the Project have been assessed in this ESIA.</p> <p>The ESMP identifies the requirement for a Community Health, Safety and Security Plan.</p>

Performance Requirement	Summary and Objectives	Areas Covered	Relevance and Compliance
		<ul style="list-style-type: none"> • Security 	
PR5: Land acquisition, restrictions on land use and involuntary resettlement	<p>Summary This PR addresses impacts of project-related land acquisition. Application of this PR is consistent with the universal respect for, and observance of, human rights and freedoms, specifically the right private property, the right to adequate housing and to the continuous improvement of living conditions.</p> <p>Objectives</p> <ul style="list-style-type: none"> • Avoid involuntary resettlement or, when unavoidable, minimise involuntary resettlement by exploring feasible alternative project designs and sites; • Avoid forced eviction; • Mitigate unavoidable adverse social and economic impacts from involuntary resettlement of affected persons by: (i) providing timely compensation for loss of assets at full replacement cost; and (ii) ensuring that land acquisition, restriction on land use, other assets and natural resources and involuntary resettlement activities are implemented with meaningful consultation, participation and disclosure of information, in accordance with the requirements of PR10; • Improve, or as a minimum restore the livelihoods and standards of living of affected persons compared to pre-displacement levels; and • Improve living conditions of physically displaced persons through the provision of adequate housing (including essential services and utilities) with security of tenure at resettlement sites. 	<ul style="list-style-type: none"> • Avoidance or Minimisation of Displacement • Avoidance of Forced Eviction • Negotiated Settlements • Consideration of Vulnerable Groups • Consideration of Gender Aspects • Socio-economic Surveys • Census, Inventory of Affected Assets and Cut-off Date • Valuation of Affected Lands and Assets • Eligibility Classification • Compensation and Benefits for Affected Persons • Voluntary Land Donations • Loss of Community Facilities, Utilities and Public Amenities 	<p>This PR is applicable to the Project in relation to the requirement for land for the new OHTL and its RoW, along with any associated physical or economic displacement.</p> <p>A preliminary assessment of displacement impacts has been undertaken and is reported in this ESIA and in the LARF.</p> <p>This PR is applicable mainly in relation to the potential for some low-level economic disturbance during construction. No residential properties (herder camps) have been identified in the RoW. However, as herder households are transient, this will need to be surveyed in detail prior to construction.</p> <p>Currently it is not anticipated that temporary loss of access will result in livelihood impacts. However, the permanent footprint of the route will affect three mining licence areas and crosses three locally protected sites.</p> <p>A LARF has been prepared as part of this ESIA disclosure package. A detailed survey of the final route RoW will be required and, where necessary, a Resettlement Action Plan (RAP) and/or Livelihood Restoration Plan (LRP) will need to be prepared and implemented. The Construction Contractor will need to select temporary construction sites based on negotiated and voluntary transactions wherever possible. Where this is not possible, the Client and the Contractor will need to assess the impact of the temporary displacement related to temporary Contractor sites as part of the RAP/LRP. Contractor shall follow land entry and land exit protocol</p>

Performance Requirement	Summary and Objectives	Areas Covered	Relevance and Compliance
		<ul style="list-style-type: none"> • Stakeholder Engagement • Grievance Mechanism • Planning and Implementation • Organisational capacity and commitment • Monitoring and Evaluation • Physical Displacement and Resettlement Assistance 	documenting land conditions upon entry and upon exit and reporting the status to the Client.
PR6: Biodiversity conservation and sustainable management of living natural resources	<p><u>Summary</u> This PR recognises that the conservation of biodiversity and sustainable management of living natural resources are fundamental to environmental and social sustainability. The objectives of PR10 must be balanced with the potential for utilising multiple economic, social and cultural values of biodiversity and living natural resources in an optimised manner.</p> <p><u>Objectives</u></p> <ul style="list-style-type: none"> • Protect and conserve biodiversity using a precautionary approach; • Adopt the mitigation hierarchy in the design and implementation of projects with the aim of achieving no net loss and where appropriate, a net gain of biodiversity; • Maintain ecosystem services; and • Promote good international practice in the sustainable management and use of living natural resources. 	Biodiversity conservation <ul style="list-style-type: none"> • Assessment of issues and impacts • The Protection and Conservation of Biodiversity, Priority Biodiversity Features and Critical Habitats • Legally Protected and Internationally Recognised Areas of Biodiversity Value • Invasive Alien Species 	<p>Vegetation clearance may be required for the Project footprint. During construction impacts may also occur from increased traffic, noise and air emissions. During operation bird strikes may increase.</p> <p>The impact of the Project on these sites has been assessed in this ESIA.</p> <p>Mitigation is proposed in this ESIA and the ESMP to minimise the potential impact on habitats and species.</p>

Performance Requirement	Summary and Objectives	Areas Covered	Relevance and Compliance
		<ul style="list-style-type: none"> Sustainable management of living natural resources Supply chains 	
PR8: Cultural heritage	<p>Summary This PR recognises the importance of cultural heritage for present and future generations. Both tangible and intangible cultural heritage are important assets for economic and social development and are an integral part of cultural identity. In pursuing these aims, this PR is guided by applicable international conventions.</p> <p>Objectives</p> <ul style="list-style-type: none"> Support the protection and conservation of cultural heritage; Adopt the mitigation hierarchy approach to protecting cultural heritage from adverse impacts arising from the project; Promote the equitable sharing of benefits from the use of cultural heritage in business activities; and <p>Where significant elements of cultural heritage are identified, promote the awareness, appreciation and enhancement of cultural heritage as well as potential socioeconomic benefits for local communities.</p>	<ul style="list-style-type: none"> Consultation with Affected People, Communities, and Other Stakeholders Assessment of Risks and Impacts Chance Finds Procedure Legally Protected and Internationally Recognised Areas Project's Use of Cultural Heritage 	<p>No direct impacts on known cultural heritage will occur as a result of the Project. However, there is a potential for unknown cultural heritage to be present in the Project Area and therefore, the requirement for a Chance Finds Procedure has been identified and included in the ESMMP.</p> <p>Archaeological surveys should also be carried out in advance of construction, to identify currently unknown below-ground archaeological sites by the MoE in line with Mongolia legislation. The survey results should inform mitigation in the form of archaeological excavation and recording to be carried out in advance of construction in these areas.</p>
PR10: Information disclosure and stakeholder engagement	<p>Summary This PR recognises the importance of an open and transparent engagement between the clients, its workers, worker representatives, local communities and persons affected by the Project and, where appropriate, other project stakeholders as an essential element of good international practice and corporate citizenship. Such engagement is also a way of improving the environmental, social and overall sustainability of projects.</p> <p>Objectives</p>	<ul style="list-style-type: none"> Stakeholder Identification Stakeholder Engagement Plan Information Disclosure Meaningful Consultation 	<p>For public sector Category A projects, there is need for a comprehensive ESIA, followed by public disclosure for a minimum period of 120 days.</p> <p>This document presents the ESIA for the Project.</p> <p>Stakeholder Engagement is presented in the SEP.</p>

Performance Requirement	Summary and Objectives	Areas Covered	Relevance and Compliance
	<ul style="list-style-type: none"> • Outline a systematic approach to stakeholder engagement that will help the client build and maintain a constructive relationship with their stakeholders; • Provide means for effective and inclusive engagement with project stakeholders throughout the project cycle; • Ensure that appropriate environmental and social information is disclosed and meaningful consultation is held with the project's stakeholders and where appropriate, feedback provided through the consultation is taken into consideration; and <p>Ensure that grievances from stakeholders are responded to and managed appropriately.</p>	<ul style="list-style-type: none"> • Disclosure and Consultation on Category A Projects • Grievance Mechanism • Changes to Project Environmental and Social Risks and Impacts 	

Relevant EU Directives

- 4.2.4 The EBRD ESP requires the Project to meet all relevant EU substantive environmental standards. The key relevant EU Directives are as follows:

Directive 2011/92/EU - Environmental Impact Assessment, amended in 2014 by the EIA Directive 2014/52/EU

- 4.2.5 The most relevant EU Directive in relation to the Project is EU Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment, as amended by 2014/52/EU (the EIA Directive). This Directive improves the level of environmental protection, with a view to making business decisions on public and private investments more sound, predictable and sustainable in the longer term. EIA is required for all projects in Annex I and for Annex II projects, national authorities have to decide whether an EIA is needed. It also strengthens the need for effective public participation in decision-making, protection and promotion of cultural heritage and strengthens public access to information.
- 4.2.6 The Project falls under Annex I of the EIA Directive as the following characteristics are applicable:
“Construction of overhead electrical power lines with a voltage of 220 kV or more and a length of more than 15 km”. Annex I, Article 4(1)”.
- 4.2.7 The EIA Directive and its amendments emphasises the need for effective public participation in decision-making (including of biodiversity impacts), as well as the participation of associations, organisations especially non-governmental organisations. It also requires that, with a view to strengthening public access to information and transparency, timely environmental information should also be accessible in electronic format. Disclosure of impact assessment documents for public comments is also a requirement under the directive. Reasonable timeframes should be provided for the public to prepare and participate in the consultation process. The results of consultations should be recorded and taken into account during the project.
- 4.2.8 The 2014 Directive amendments also place more emphasis on the protection and promotion of cultural heritage (which may include natural ecosystems of ecological importance) and strengthen public access to information.

Directive 2000/60/EU - Water Framework Directive

- 4.2.9 The objective of this Directive is to establish a framework for protection of inland surface waters (rivers and lakes), transitional waters (estuaries), coastal waters and groundwater. *Inter alia*, it is aimed at an effective use of water resources and will ensure that all aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands meet 'good status' by 2015. The Directive is directly relevant to biodiversity by promoting sustainable management of water resources critical for habitats. It is understood that there are no permanent natural surface waterbodies along the proposed OHTL route, however several dry river beds were identified during the initial site walkover. Within the study area is a marsh area near Sainshand, which is assumed to be sustained by groundwater. There is also a potential waterbody near the 150km to 155km section within the Uushiin Gobi protected area.

Directive 2009/147/EC - on the Conservation of Wild Birds

- 4.2.10 The EU Directive on the conservation of wild birds (2009/147/EC), referred to as the Birds Directive, is relevant. Article 1 applies the Directive to the conservation of all species of naturally occurring birds in the wild state in the European territory of the Member States to which the Treaty applies. It covers the protection, management and control of these species and lays down rules for their exploitation; and applies to birds, their eggs, nests and habitats. Article 5 requires the protection of nests and eggs and prohibits deliberate disturbance of these birds particularly during the period of breeding and rearing, in so far as disturbance would be significant having regard to the objectives of this Directive. The Directive also encompasses rules for the sustainable management of bird species and their habitats.

Directive 92/43/EEC - on the conservation of natural habitats and of wild fauna and flora

- 4.2.11 The EU Directive on the conservation of natural habitats and of wild fauna and flora (92/43/EEC), referred to as the Habitats Directive, is relevant. This Directive is one of the main pillars of the EU's system of wildlife and nature conservation, along with the Birds Directive. Article 17 of the directive sets the terms and standards for reporting on both the habitats and species listed in the annexes by the individual EU member countries. The annexes of the directive outline the protected habitats and species:
- Annex I covers habitats
 - Annex II species requiring designation of Special Areas of Conservation
 - Annex IV species in need of strict protection
 - Annex V species in which member countries may decide for themselves how to manage the population

Directive 2003/4/EC - on Public Access to Environmental Information

- 4.2.12 The purpose of the Directive is to ensure that environmental information is systematically available and distributed to the public. The Directive requires Member States to ensure that public authorities are required to make the environmental information they hold available to any legal or natural person on request.

Directive 2008/98/EC - The Waste Framework Directive

- 4.2.13 The Waste Framework Directive lays down basic waste management principles. It requires that waste be managed without endangering human health and harming the environment; without risk to water, air, soil, plants or animals; without causing a nuisance through noise or odours; and, without adversely affecting the countryside or places of special interest.
- 4.2.14 It explains when waste ceases to be waste and becomes a secondary raw material, and how to distinguish between waste and by-products. The Directive also introduces the "polluter pays principle" and the "extended producer responsibility".
- 4.2.15 The foundation of EU waste management is the five-step "waste hierarchy", established in the Waste Framework Directive. It establishes an order of preference for managing and disposing of waste.

Framework Directive 89/391/EEC - on Safety and Health at Work

- 4.2.16 This Framework Directive lays down the main principles to encourage improvements in the safety and health of workers at work. It guarantees minimum safety and health requirements throughout Europe while Member States are allowed to maintain or establish more stringent measures.

Directive 89/654/EEC - concerning the Minimum Safety and Health Requirements for the Workplace

- 4.2.17 This is the first individual directive within the meaning of Article 16 of the above Framework Directive 89/391/EEC. The Directive defines the term “workplace” as *the place intended to house workstations on the premises of the undertaking and/or establishment and any other place within the area of the undertaking and/or establishment to which the worker has access in the course of his employment*. Employers must ensure that workplaces satisfy the minimum safety and health requirements laid down in the Directive’s annexes. Topics include: emergency routes and exits; fire detection and fire fighting; ventilation of enclosed workplaces; room temperature; natural and artificial room lighting; pregnant women and nursing mothers; sanitary equipment; first aid rooms/equipment; and disabled workers.

EU Directive 2013/35/EU of the European Parliament of and of the Council of 26 June 2013 on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields) (20th individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC) and repealing Directive 2004/40/EC (the EMF Framework Directive)

- 4.2.18 This Directive covers all known direct biophysical effects and other indirect effects caused by electromagnetic fields. The Directive currently only addresses short-term effects and does not consider possible long-term effects.
- 4.2.19 The employer shall eliminate or reduce to a minimum the risks that arise from EMFs at the workplace in line with the principles of the Framework Directive . If relevant action levels are and relevant exposure limit values may be exceeded, the employer shall implement an action plan in order to ensure that the latter is not exceeded. Certain derogations apply to limit values.
- 4.2.20 It requires that risks assessment of EMFs at the workplace (if necessary including measurements and calculations, if necessary) should be carried out in line with the Framework Directive . Assessment of occupational exposure is not required if evaluation for the general public has already been completed and if the specific equipment is intended for public use. The employer shall consider updating the risk assessment and the prevention measures if workers report transient symptoms in relation to their sensory/neural system.

EU Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on Energy Efficiency

- 4.2.21 The EU Directive on Energy Efficiency is not directly applicable however, some provisions are relevant. Particularly, Article 15 which covers energy transformation, transmission and distribution. It requires an assessment of the energy efficiency potentials of electricity infrastructure, in particular regarding transmission, distribution, load management and interoperability, and connection to energy generating installations. Article 15 also requires identification of concrete measures and investment for the introduction of cost-effective energy efficiency improvements in the network infrastructure, with a timetable for their introduction.

EU Council Recommendation (1999/519/EC)

- 4.2.22 In 1999, the Council of the European Union (EU) published the Recommendation on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz) (1999/519/EC). This recommendation was based on the Guidelines for limiting exposure to time-varying electric, magnetic and electromagnetic fields (up to 300 GHz) of the International Commission on Non-Ionizing Radiation Protection (ICNIRP). According to this recommendation the reference values for high-voltage power lines (50 Hz) are - electric field: 5 kilovolt per metre (5 kV/m) magnetic field: 100 microteslas (100 μ T).

Relevant Conventions

- 4.2.23 Mongolia has adopted a number of international conventions with regard to environment as shown in **Table 4-2**.

Table 4-2 International Environmental and Cultural Heritage Conventions signed by Mongolia

#	Convention	Year of Accession
Environmental Conventions		
1	Convention on Biological Diversity	1993
2	Cartagena Protocol on Biosafety	2000
3	UN Framework Convention on Climate Change (UNFCCC)	1994
4	Kyoto Protocol	1999
5	UN Convention to Combat Desertification	1996
6	Convention on the Protection of Wetlands of International Importance especially as Waterfowl Habitat (Ramsar)	1998
7	Vienna Convention for the Protection of the Ozone Layer	1996
8	Montreal Protocol (regulating substances that deplete the ozone layer)	1996
9	Convention on International Trade in Endangered Species of Fauna and Flora (CITES)	1996
10	Convention on the Transboundary Movement of Hazardous Waste (Basel)	1997

#	Convention	Year of Accession
11	Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade	2001
12	Stockholm Convention on Persistent Organic Pollutants	2004
13	Convention on the Conservation of Migratory Species of Wild Animals	1999
14	MoU concerning the Conservation of Migratory Birds of Prey in Africa and Eurasia	2008
15	Paris Climate Accord	2016
Cultural Heritage Conventions		
16	Convention for the protection of cultural property during armed conflict	1964
17	World Heritage and Natural Heritage Convention	1990
18	Convention on the prevention measures of illegal entry and release of cultural heritage, as well as prohibition of cultural heritage ownership transfer	1991
19	Convention for the Safeguarding of Intangible Cultural Heritage	2005
20	Convention for the protection and promotion of the diversity of cultural expressions	2007

Source: ESIA Team.

- 4.2.24 Although Mongolia is not a signatory, the EBRD observes the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters and the Espoo Convention on Environmental Impact Assessment in a Transboundary Context.

Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, 1998 (Aarhus Convention)

- 4.2.25 The Aarhus Convention establishes a number of rights of the public (individuals and their associations) with regard to the environment. This Convention provides for:
- **Access to environmental information.** The right of everyone to receive environmental information that is held by public authorities. Applicants are entitled to obtain this information within one month of the request and without having to say why they require it. In addition, public authorities are obliged, under the Convention, to actively disseminate environmental information in their possession;
 - **Public participation in environmental decision-making.** The right to participate in environmental decision-making. Arrangements are to be made by public authorities to enable the public affected and environmental non-governmental organisations to comment on, for example, proposals for projects affecting the environment, or plans and programmes relating to the environment. These comments to be taken into due account in decision-making, and information to be provided on the final decisions and the reasons for it; and
 - **Access to justice.** The right to review procedures to challenge public decisions that have been made without respecting the two aforementioned rights or environmental law in general.

The Espoo Convention on Environmental Impact Assessment in a Transboundary Context, 1991

- 4.2.26 The Espoo (EIA) Convention sets out the obligations of Parties to assess the environmental impact of certain activities at an early stage of planning. It also lays down the general obligation of States to notify and consult each other on all major projects under consideration that are likely to have a significant adverse environmental impact across boundaries.

The United Nations Convention on the Rights of the Child, 1990

- 4.2.27 According to the Article 32.1 the right of the child to be protected from economic exploitation and from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development.

International Labour Organization (ILO) conventions

- 4.2.28 Mongolia has been a member of the ILO since 1968 and has ratified 20 ILO Conventions, of which 18 are in force, including all eight fundamental conventions, and one convention has been denounced. Ratified conventions are listed in **Table 4-3**.

Table 4-3 ILO Conventions Ratified by Mongolia

Convention Name	Ratification date by Mongolia
Freedom of association, collective bargaining, and industrial relations	
C087 – Freedom of Association and Protection of the Right to Organize Convention, 1948 (No.87)	03 June 1969
C098 – Right to Organize and Collective Bargaining Convention, 1949 (No.98)	03 June 1969
C135 – Workers' Representatives Convention, 1971 (No.135)	08 Oct 1996
Forced Labour	
C029 – Forced Labour Convention, 1930 (No.29)	15 Mar 2005
C105 – Abolition of Forced Labour Convention	15 Mar 2005
Elimination of child labor and protection of children and young persons	
C123 – Minimum Age (Underground Work) Convention, 1965 (No.123) Minimum age specified: 18 years,	03 Dec 1981
C138 – Minimum Age Convention, 1973 (No.138)	16 Dec 2002
C182 – Worst Forms of Child Labour Convention, 1999 (No.182)	26 Feb 2001
Equal opportunity and treatment	
C100 – Equal Remuneration Convention, 1951 (No.100)	03 Jun 1969
C111 – Discrimination (Employment and Occupation) Convention, 1958 (No.111)	03 Jun 1969
Employment policy and promotion	

Convention Name	Ratification date by Mongolia
C088 – Employment Service Convention, 1948 (No.88)	17 Apr 2015
C122 – Employment Policy Convention, 1964 (No.122)	24 Nov 1976
C159 – Vocational Rehabilitation and Employment (Disabled Persons) Convention, 1983 (No.159)	03 Feb 1998
C181 – Private Employment Agencies Convention, 1997 (No.181)	17 Apr 2015
Occupational safety and health	
C155 – Occupational Health and Safety Convention, 1981 (No.155)	03 Feb 1998
C176 - Safety and Health in Mines Convention, 1995 (No.176)	26 Nov 2015
Maternity protection	
C103 – Maternity Protection Convention, 1952 (No.103)	03 Jun 1969
Tripartite consultation	
C144 – Tripartite Consultation (International Labour Standards) Convention, 1976 (No.144)	10 Aug 1998

Source: ILO

4.3 Policy and Legal Framework in Mongolia

Environmental and Social Policy

Vision 2050

- 4.3.1 Mongolia's long-term development policy - Vision 2050 - places a strong focus on the reduction of poverty and the move towards a more inclusive economic growth. Sustainable development is defined throughout the 2050 Vision in relation to social development, including gender equality, and improved quality of life as well as improvements in safety of the living environment for citizens. The focus areas within the 2050 Vision build on one another and aim to mutually reinforce development efforts. The priority areas include: Common National Values, Human Development, Quality of Life and Middle-Class Society, Economy, Governance, Green Development, and Regional Development. These overarching strategic priorities largely align with the UN Sustainable Development Goals (SDGs).

- 4.3.2 Sustainable development is defined throughout the 2050 Vision in relation to social development, including gender equality, and improved quality of life as well as improvements in safety of the living environment for citizens.

New Recovery Policy, 2021

- 4.3.3 The New Recovery Policy (NRP), approved by the Mongolian Parliament in March 2022, is a medium-term target program to be implemented over a period of up to 10 years. Its aim is to strengthen the independence and self-reliance of Mongolia's economy, reduce the negative impact of the coronavirus (COVID-19) pandemic on the economy, promptly address the factors limiting development, create the basic conditions for the effective implementation of Mongolia's Vision-2050.

- 4.3.4 By implementing the NRP, the basic conditions will be created to achieve the goals and objectives of the first phase of the Vision-2050 long-term development policy of Mongolia. Six major economic barriers to Mongolia's development will be tackled through collaborative efforts between the public and private sectors, along with investors. The NRP focuses on addressing these six pivotal economic challenges: trade ports, energy, industrialization, urban and rural development, green development, and efficient governance.

The Five-Year Development Guidelines for 2021-2025

- 4.3.5 The "Five-Year Development Guidelines for 2021-2025" in Mongolia, approved by the Parliament Resolution No.23, 28 August 2020, is a mid-term strategic document aligned with the country's long-term development vision (Vision 2050). It outlines specific goals, targets, and actions to be implemented within the five-year period, ensuring coherence across state, sectoral, regional, and local levels. The guidelines also focus on integrating Sustainable Development Goals (SDGs) and strengthening the monitoring and review mechanisms.
- 4.3.6 Economic priorities, inter alia, include an objective to initiate economic structural reforms, increase competitiveness, and develop export-oriented heavy and light manufacturing. To achieve this objective, various measures have been identified, including development of energy and engineering infrastructure that supports economic development; expanding power plants, construction of power transmission lines and substations, and new sources to fully meet domestic electricity needs; construction of heavy industries such as coal-chemical, copper concentrate, and metallurgy, and this end, implement the necessary infrastructure projects such as railways, water, and energy; and creating a stable, self-regulating system that fully meets domestic energy needs.

Regional Development Concept of Mongolia

- 4.3.7 This development policy document, approved by Parliament Resolution No.64, 6 June 2024, sets new shift in development paradigm, emphasising regional development for more balanced national socio-economy and national spatial structure. New regional divisions¹¹ were introduced, and Dornogovi aimag along with the other four Gobi aimags formed a southern or Gobi region. The goal of the Gobi region development is to expand economic relations with the People's Republic of China and South Asian countries, and to become a "National Wealth-Building Region" with developed tourism based on the Gobi's natural, historical, cultural heritage, and paleontological resources, specializing exclusively in high-tech mining and heavy industry. To achieve this goal, 39 objectives have been defined, including construction of an oil refinery and a chemical plant, along with other ancillary plants, in Altanshiree soum, Dornogovi aimag; construction of solar and wind power plants with a capacity of up to 100 MW each; construction of 220 kV Choir-Sainshand overhead electricity transmission line; construction of 220 kV double-circuit Sainshand-Tsagaan Suvarga overhead transmission line and expansion of a substation in Tsagaan Suvarga; establishment of dry ports based on the transport and logistics centres of Choir and Sainshand cities; establishment of a special tourism zone based on paleontological resources in the Tsagaan Suvarga area of Dornogovi aimag within the framework of

¹¹ Seven regions.

a public-private partnership.

Mongolian Government Action Programme 2024-2028

4.3.8 The Government's Action Programme for 2024-2028 defines the Gobi region as a "a specialised industrial zone and a green energy sub-zone" and identifies a number of projects in the southern Mongolia, or Gobi region:

- Developing renewable energy and distributed sources;
- Developing and putting in operation of coal-chemical and coke-chemical complexes;
- The establishment of the "Altanshireet" Industrial and Technological Park and the "Gerelt Gobi" Industrial and Technological Park, along with other supporting industries, will be implemented within the framework of the public and private sectors;
- Solar and wind power plants with a capacity of up to 100 MW each will be built in the Gobi region;
- In conjunction with new solar and wind power projects, adaptive battery storage systems with a capacity of over 200 MW will be built;
- Substations and power lines will be expanded, intelligent management systems will be introduced, and line losses will be reduced;
- Develop renewable energy production and reduce production costs;
- To ensure reliable, safe, and stable energy supply, a power plant with a capacity of 300 MW or more will be built and put into operation in the Gobi region, initially to fully meet domestic needs;
- An integrated grid code and management system will be established as a basic document for ensuring energy stability and developing renewable energy properly and appropriately.
- Solar and wind renewable energy stations will be built using the solar and wind resources of the Gobi region;
- The 220 kV Baganuur-Choir and 220 kV Mandalgovi-Arvaikheer overhead transmission lines and substations will be constructed, and preparatory measures will be taken for the 220 kV Sainshand-Tsagaan Suvarga overhead transmission line and substation project; and
- A 220 kV overhead power line and substation on the Tavan Tolgoi-Oyu Tolgoi route, and a 220 kV overhead power line and substation on the Choir-Sainshand route will be constructed.

Environmental and Social Laws

4.3.9 The hierarchy of environmental and social management policies and legislative provisions in Mongolia includes the Constitution, international treaties, laws on environmental and resource protection and related standards, and laws related to human development (education, health, employment, housing, social protection). Relevant environmental and social laws and regulations will be applied to the Project in Figure 4-4.

Table 4-4 Key Environmental and Social Laws of Mongolia

Name of the Law	Summary description	Year Adopted	Year of Amendment
The Constitution of Mongolia	The constitution established a representative democracy in Mongolia, enshrining core functions of the government, including the separation of powers and election cycle, and guaranteeing human rights including freedom of religion, travel, expression,	1992	1999, 2019, 2022, 2023

Name of the Law	Summary description	Year Adopted	Year of Amendment
	private property. In 2019, Mongolia amended its constitution to enhance the economic opportunities of the Mongolian citizenry and give them better control over how the country's vast natural resources and the revenues earned from them are maintained.		
Civil Code	This law regulates the relationships related to both material and non-material wealth that arise between legal persons. The civil legislation governing these relationships is founded on several key principles: the equality and autonomy of participants in civil legal relations, the sanctity of their property, freedom of contract, non-interference in personal affairs, the free exercise of civil rights and obligations, and the reinstatement and protection of violated rights through the court system.	2022	Latest amendments 2021, 2021, 2023, 2024
Law on Environmental Protection	<p>The Law on Environmental Protection was adopted on March 30, 1995, and last amended in 2024. It aims to regulate relations between the State, citizens, business entities, and organizations to guarantee the human right to live in a healthy and safe environment, ensure ecologically balanced social and economic development, protect the environment for present and future generations, promote the proper use of natural resources, and restore available resources.</p> <p>The law established a responsibility mechanism that requires that a party found guilty is liable to compensate for environmental negative impact and cost of restoration of the natural resource due to its operation and it also states that an officer who did not perform his/her duties is liable. Furthermore, any industry, economic entity and organization is required to commission an environmental assessor to conduct an environmental audit and can issue a fine as compensation for damage caused to the environment.</p> <p>With regards to ownership of natural resources and environmental protection, business entities and organizations may use natural resources upon the payment and collection of relevant fees in accordance with any contract, special permit, or license (Article 6.2).</p> <p>Environmental audit shall be conducted every two years, and the economic entity shall implement recommended measures in environment audit report and shall submit the report about its implementation to province Environment Agency within the term stated in audit report (Article 10.1).</p>	2012 (revised version)	2015, 2017. 2022, 2023, 2024
Law on Environmental Impact Assessment	The Law on Environmental Impact Assessment was adopted on May 17, 2012, and last amended in 2024. The purpose of this law is to implement Article 16.2 of the Constitutional Law of Mongolia, protect the environment, prevent ecological imbalance caused by human activities, exploit mineral resources with minimal adverse impact on the environment within the region and industry, assess the environmental impact of development policies, plans,	2012	2024

Name of the Law	Summary description	Year Adopted	Year of Amendment
	programs, and projects, and make decisions and conclusions on whether to implement them. It also aims to arrange coordination among stakeholders.		
Law on Sub-Soil	<p>The Law of Mongolia on Subsoil is designed to regulate the use and protection of subsoil resources, ensuring they benefit both present and future generations. It establishes that the subsoil is state property, aligning with the Constitution of Mongolia, and prohibits any alteration of this ownership. The legislation includes the constitution, the Law of Mongolia on Subsoil, and other relevant legislative acts, with international treaties taking precedence if there are conflicts.</p> <p>Subsoil is defined as the space extending below the soil surface, encompassing all materials and geological objects found within this depth. Regardless of its usage, all subsoil forms a unified pool owned by the state. This comprehensive legislation aims to regulate the exploitation and conservation of these vital natural resources effectively.</p> <p>Business entities, organizations and individuals have the right to mine ordinary minerals and use fresh groundwater for their own business and domestic needs without obtaining the mine tenure and based on the permission of the soum or district governor (Article 18).</p> <p>Basic rights and obligations of subsoil users (Article 20):</p> <ul style="list-style-type: none"> • 3) reliable protection of atmospheric air, land, forests, water, mineral springs, animals, other environmental objects and structures from potential harmful effects of subsoil use, as well as preservation and protection of special protected areas, natural and historical and cultural monuments, • 4) to make the land disturbed during the subsoil use safe and rehabilitate it so that it can be used in the future and hand it over to the local administrative body that first issued the permit, • 5) to hand over precious metals, precious stones and scientific, historical and cultural values to the state that were discovered during subsoil use." 	1988	2023
Law on Soil protection and prevention from desertification	<p>The Law on Soil Protection and Prevention of Desertification was adopted on May 17, 2012 and last amended in 2022. The purpose of this law is to regulate relations concerning the protection of soil from degradation, restoration, and the prevention of desertification.</p> <p>The law establishes the following measures to implement in order to prevent and mitigate impacts on soil:</p> <ul style="list-style-type: none"> • The category of the state of soil degradation and desertification should be determined, and appropriate measures should be taken. 	2012	2022

Name of the Law	Summary description	Year Adopted	Year of Amendment
	<ul style="list-style-type: none"> • Waste generated from the Project activities should only be disposed at the approved disposal site (Article 7.2.1). • No less than 10% of the tenure land should be planted with trees and grasses (Article 7.2.4). • Vehicle road and parking lot area should be defined, and transport means should not create traffic in other places other than these designated areas (Article 7.2.5). • If the Project operations/activities have led to soil degradation, the responsible for the Project shall pay for the cost of estimating the amount of damages imposed (Article 11.4) and it has duty of eliminating and rehabilitating these damages (Article 9.3). 		
Law on Special Protected Areas	<p>The purpose of this legislation is to regulate the utilization and designation of areas under special protection, ensuring the preservation and protection of natural landscapes in Mongolia. The law aims to maintain unique features of natural zones, protect rare and endangered fauna and flora, safeguard historical and cultural sites, and conserve natural sightseeing locations.</p> <p>The law classifies state special protected areas into four categories: strictly protected areas, national park, natural reserves, and national monument areas. This classification ensures a comprehensive approach to preserving the nation's valuable natural and cultural heritage.</p>	1994	2023
Law on Buffer Zones of Protected Areas	<p>The purpose of this Law is to regulate the determination of Special Protected Area Buffer Zones and the activities therein. The Law specifically provides for zones in two categories – Strictly Protected Areas and National Conservation Parks.</p>	1995	
Law on Fauna	<p>The law aims to regulate activities related to the protection, breeding, and proper utilization of animal resources. It emphasizes safeguarding animals other than livestock and domestic animals, ensuring that their genetic and environmental integrity is maintained. This legislation takes into account various existing laws, including the Constitution of Mongolia, the Law on Environmental Protection, and the Law on Genetic Resources. In cases where there is a conflict between this law and international treaties to which Mongolia is a party, the provisions of the international treaties will take precedence.</p> <p>In addition, if a damage on Fauna is recorded, the amount of compensation is estimated by multiplying twice the ecological-economic intrinsic value of the fauna, which is defined the government (Article 37.2).</p>	2012	2024
Law on Natural Plants	<p>The regulation and protection of plant resources in Mongolia are of utmost importance, given the country's rich biodiversity and unique ecosystems. The Mongolian Law on Natural Plants aims</p>	1995	2024

Name of the Law	Summary description	Year Adopted	Year of Amendment
	<p>to ensure the sustainable use, proper management, and rehabilitation of natural plants other than forestry and cultivated plants. This law is an integral part of the environmental legislation, which also includes the Mongolian Law on Environmental Protection and the Law on Genetic Resources.</p> <p>Plants are classified according to their resources and regenerative capacity as follows (Article 3.2):</p> <ul style="list-style-type: none"> • Endangered; • Rare; and • Common. <p>Endangered plants include plants that are not able to regenerate naturally, have a very limited distribution, no resources to use, and are in danger of extinction (as set out in the annex to this law) (Article 3.3).</p> <p>Rare plants include plants with limited natural regenerative capacity, limited distribution and resources, and near threatened species. The list of rare plants is approved by the Government (Article 3.4).</p> <p>Plants other than those specified in Articles 3.3 and 3.4 of this law shall be considered as common.</p> <p>Citizens, business entities and organizations shall hand over the land used for industrial purposes to the soum or district governor after creating conditions for rehabilitation or rehabilitation with their own funds in accordance with relevant regulation (Article 9).</p>		
Law on Plant Health and Plant Protection	<p>The Plant Health and Plant Protection Law of Mongolia is a comprehensive legal framework designed to safeguard the nation's agricultural integrity and natural balance. Its primary objectives are to ensure food security, promote free trade, and protect plant health across Mongolia's vast and diverse landscape.</p> <p>It aims to prevent, control, and eradicate plant pests while regulating the import, export, re-export, and transit of plants and plant products.</p>	2024	-
Law on Forest	<p>This Law sets forth the principles and regulations for the protection, restoration, possession, use of forests, and prevention of forest and steppe fires in Mongolia. It aims to safeguard the ecological integrity and biodiversity of the nation's forests.</p>	2012	2023
Law on Water	<p>The Law on Water, first adopted in 2004 and last amended in 2020, is an umbrella law for water resources management, making provision with respect to the proper use, protection and restoration of water resources of Mongolia. The purpose of the Law is to govern relations concerning the protection and rational use and restoration of water resource and its basin. The law introduced important principles, including on establishing an institutional framework for IWRM; on the mandates of State</p>	2012	2024

Name of the Law	Summary description	Year Adopted	Year of Amendment
	<p>organizations responsible for IWRM; on the introduction of River Basin Organizations, each comprising a River Basin Authority and a River Basin Council; and on the engagement of the private sector in water management activities e.g. through state corporations and Public private partnership (PPP) arrangements. The law also initiated the reassignment of many water functions from the central government to local governments, including for governors on issuing and monitoring water use permits, and on revoking water use permits, and for Citizens' Representative Hural on overseeing the implementation of the Law; on reviewing and approving Governor reports as well as the GOM's policies and programs, and decision taken. Specifically, Citizens' Representative Hurals of Baghs/Bags and Khorroos coordinate the exploitation and possession of wells, water storage and irrigation infrastructure, discuss and take decisions on the Governor's proposal to dig wells and construct pools, water storages and irrigation schemes for the purpose of watering pasture, hay-field and croplands. The Law on Water also regulates permitting for water consumers. The issue of setting water intake limits is governed by the Law on Water as well as by the Law on Urban Water Supply, Sanitation Sewerage Use and the regulations issued thereunder.</p> <p>With regard to possession of a well, according to the Law on Water (2012), citizens and business entities have the right to use water in accordance with the legislation based on water use permits and agreements of specific purpose and conditions. There are two classifications depending on the purpose of water use and consumption: the water user and the water consumer . As indicated in the law, if water consumers (households) wish to obtain permission to consume water from a well, they need to submit a request to the aimag Environment Department containing information on the purpose and quantity of the water to be used, a copy of the land certificate (ownership, possession or use), and details of the well. The aimag Environment Department then registers the water consumer wells in a water database and issues a "well passport". According to the law, the right to possess and use water facilities and wells is granted for a period up to five years.</p>		
Law on Water Pollutant Fee	The Law on Water Pollution Fee was adopted on 17 May 2012 and last amended in 2024 to deal with the issue of setting the amount of compensation / pollution fee / that citizens, economic entities and organizations that pollute water have to pay. There are no more legal obstacles to implement and enforce the 'polluter-pays' principle.	2012	2024
Law on Air	This Law regulates relations involving air protection, preventing pollution, and reducing and controlling emissions. The law aims to regulate relationships concerning the protection of the	2012	2023

Name of the Law	Summary description	Year Adopted	Year of Amendment
	<p>surrounding air, including the prevention of air pollution, and the reduction and control of air pollutant emissions. It outlines the powers of state and local self-governing bodies, as well as the rights and obligations of citizens, business entities, and organizations in air protection efforts.</p> <p>The law regulates air quality monitoring and information dissemination, implementation of air protection measures, and various miscellaneous provisions. It also includes specific articles on the monitoring system, state unified statistics on air pollutant emissions, the deliberate influence on air conditions and weather phenomena, and the imposition of air pollution fees.</p>		
Law on Air Pollutant Fee	<p>This law regulates the imposition of air pollution fees on individuals and the payment of such fees.</p> <p>The responsibilities of individuals and entities subject to the air pollution fee include their obligation to register appropriately. The specific items and activities subject to the fee ensure that all sources of air pollution are accounted for. The measurement units used when calculating the fee provide clarity and consistency in determining charges.</p> <p>The fee rates and the amount to be charged are also discussed, while provisions for credits and exemptions allow for certain circumstances where fees may be reduced or waived. The procedures for paying and filing the fees are set forth to ensure a streamlined process for compliance. Finally, the liabilities and penalties imposed on those who violate the law emphasize the legal consequences of failing to adhere to the regulations.</p>	2010	2024
Law on Waste	<p>The Waste Management Law is designed to establish a comprehensive framework for the effective reduction, sorting, collection, transportation, storage, re-use, recycling, recovery, disposal, and export of waste. With a focused objective of minimizing and preventing the adverse impacts of waste on human health and the environment, this law seeks to integrate waste into the economic cycle, conserve natural resources, and enhance public awareness regarding waste management practices.</p> <p>This law regulates the management of various types of waste, including general/common solid waste and hazardous waste in gaseous, liquid, or solid states, excluding radioactive waste. By setting clear regulations and standards, the law aims to foster a sustainable approach to waste management and ensure a healthier, cleaner environment.</p>	2017	2024
Law on Toxic and Hazardous Chemicals	<p>The purpose of this Law is to regulate the export, import, and transportation of toxic and hazardous chemicals across the borders of Mongolia, as well as their production, storage, sale, transport, use, destruction, and associated controls. It classifies chemicals into toxic and hazardous categories, based on their</p>	2006	2024

Name of the Law	Summary description	Year Adopted	Year of Amendment
	<p>impact on human health, the environment, and wildlife. The classification is jointly approved by government members in charge of environmental and health issues.</p> <p>The law also outlines the permissions required to conduct activities involving these chemicals, except for explosives. Permissions for activities such as export, import, trans-border transportation, production, sale, use, and destruction of toxic and hazardous chemicals are issued in accordance with the Law on Permits.</p>		
Law on Protection of Cultural Heritage	<p>The Law on the Protection of Cultural Heritage aims to regulate activities related to search, registration, research, classification, evaluation, preservation, protection, restoration, recreation, transmission, inheritance, ownership, possession, use and promotion of cultural heritage. Cultural heritage is categorized into tangible and intangible forms. Tangible heritage includes immovable historical and cultural monuments and movable memorial objects, while intangible heritage encompasses non-physical cultural expressions and traditions.</p> <p>Article 38. Prohibited activities related to protection of cultural heritage. The following activities that may cause damage to cultural heritage are prohibited:</p> <ul style="list-style-type: none"> • To build infrastructure facilities in the buffer zone of historical and cultural monuments, to engage in mining, agriculture and production activities (Article 38.1.1.); • To issue land for construction of towns and buildings, construction of new roads, allocation of agricultural lands, construction of hydropower plants, exploration and exploitation of minerals without prior exploration and research by palaeontological, archaeological and ethnographic professional organizations (Article 38.1.2.); • To transfer, store, transport and move movable historical and cultural monuments of public property to another organization or environment without the permission of the owner, except in cases provided by law (Article 38.1.3.); • If the conclusion of palaeontological, archaeological, ethnographic preliminary exploration and research work determines that there is a potential risk to cultural heritage, it shall be a ground to terminate economic activity (Article 38.2.); and • If tangible cultural heritage is discovered during the possession and use of subsoil, the subsoil user shall stop its work and immediately notify the soum or district governor, police and the organization in charge of the issue (Article 38.3.). 	2014	2015, 2016, 2020, 2021, 2023, 2024
Law on Culture	The Law on Culture defines the state policy and principles on culture and regulates the relations concerning conducting cultural activities, its management, organization, rights and	2021 (revised edition)	2023,2024

Name of the Law	Summary description	Year Adopted	Year of Amendment
	responsibilities of stakeholders, and identifying the economic basis. The state shall implement the following policy on culture, namely to keep cultural heritage under special attention and patronage of the state; to strengthen the unified national values by cherishing and passing on national values such as mother language, script, national history, culture, heritage, traditions and customs; and to respect, protect and promote diversity of cultural expressions (Article 4, paragraph 4.1).		
Law on Land	The Law on Land, adopted on 7 June 2002 and last amended in 2024, regulates the possession and use of land by citizens, business entities and organizations. The Law is currently being revised. The proposed Land Package Law includes the General Land Law; the Law on Allocation of Land to Citizens of Mongolia for Ownership; the Law on Cadastre; the Law on Land Fees; the Law on Land Acquisition based on Necessary Social Needs. The Law shall, among others, strengthen land allocation and trade through the electronic land exchange, protect the legal rights of citizens and legal entities promote integrated land planning and registration through inter-sectoral coordination.	2002	Recent amendments in 2017, 2018, 2019, 2022, 2023, 2024
The Law on Allocation of Land to Mongolian Citizens for Ownership	The purpose of this law is to regulate the allocation of land to citizens for ownership and related issues arising from such allocation. The law provides definitions for key terms, such as "land," which includes the surface of the landscape and its spatial layers, and "allocation of land to citizens for ownership," which refers to transferring land ownership from the lands specified in the Constitution of Mongolia to Mongolian citizens. Land allocated to citizens can be used for family needs and agricultural or farmstead purposes.	2002	Recent amendments in 2015, amendments in 2017, 2015, 2018, 2022, 2024
Labour Code	The Labour Code sets out the rights and duties of employers and employees including collective agreement, collective bargaining, collective and individual labour disputes, labour conditions, terms and conditions of work, liabilities for breach of the legislation, and to ensure gender equality. This law provides for the rights of employees to be provided with labour conditions that comply with health and safety laws and regulations; to receive payment for work done; to holiday; to freely assemble with other employees for the purpose of protecting the rights and legitimate interests including through representative organisations and collective agreements; to strike in certain circumstances; to receive a pension, an entitlement to social insurance and death in service benefits and to other benefits as may be provided in employment and collective agreements. Additionally, the law prohibits discrimination in the workplace based on nationality, race, sex, social origin or status, wealth,	Revised edition 2021	2022, 2023, 2024

Name of the Law	Summary description	Year Adopted	Year of Amendment
	religion, or ideology, but women are prevented from undertaking certain forms of work as set out in separate regulations. Women with children are protected from discrimination and are entitled to maternity leave. Parents with children under three years old may take childcare leave and employers must re-engage such employees on their return to work. Collective agreements may be concluded within professions or economic sectors and registered with the applicable regulator. The Labour arbitration court settles collective labour disputes and a court or commission settles individual labour disputes.		
Law on Occupational Health and Safety	<p>The purpose of the Law on Occupational Health and Safety is to establish the state policy and principles related to labour safety and hygiene. It aims to regulate the relationship between state organizations in terms of managing and monitoring labour safety and hygiene requirements and standards in the workplace. The law is designed to ensure a safe and hygienic work environment for employed citizens by setting clear guidelines for labour safety and hygiene standards.</p> <p>This law sets out provisions in relation to the rights of workers; rights and duties of employers; use of machinery and equipment; use of toxic chemicals, explosives, radioactive and biological substances; fire safety; medical examinations of workers; protective equipment; workers with disabilities; registration, handling and investigation of accidents and diseases; sanctions for non-compliance; and division of powers between different government bodies.</p> <p>Employers are required to maintain safe and healthy working conditions. The law has detailed instructions for employers with regard to use of machinery and equipment, machineries for lifting, delivering and transporting as well as fire safety requirements. Employers are required to arrange free of cost preliminary and periodic medical check-ups (related to their work performance) for all workers.</p> <p>Workers also have a right to work at safe and healthy workplaces, have medical insurance to cover industrial accidents, and suspend work in the face of imminent danger.</p>	2008	2022, 2023
Law on Health	Reorganised health care organizations in terms of function and structure in different levels of the system.	2011	2020, 2021, 2023, 2024
Law on Hygiene	The law on hygiene aims to regulate relations to ensure favourable conditions for human health and safety. It focuses on preventing, mitigating, and eliminating negative environmental impacts on human health. Various hygiene conditions and requirements are established, including those related to the environment, urban development and constructions, workplaces, industries and services, raw materials, products, preparations substances.	2016	2022, 2023

Name of the Law	Summary description	Year Adopted	Year of Amendment
	The law also regulates activities related to health impact assessments, the rights and obligations of local authorities, entities, organizations, and citizens to comply with hygiene requirements. It covers hygiene management, organization and control, surveys, and prohibitions, ensuring comprehensive hygiene oversight and enforcement.		
General Law on Social Insurance	The purpose of this law is to define the types and forms of social insurance, and the scope of its effect, to determine the legal basis for payment of insurance premiums, formation of the social insurance fund and its administration, social insurance institutions and the activities of social insurance inspectors, and to regulate relations related to their implementation.	2023 (revised edition)	2024
Law on Minimum Wage	<p>The purpose of this Law is to regulate relations in connection with determining the minimum basic hourly salary /wage/ to be adhered to in labor contracts, hired work contracts, and other similar contracts.</p> <p>The Minimum wage shall mean the minimum limit of the basic hourly remuneration /wage/ that should be observed in general which was determined by the competent person in order to protect the legal interests of employees and workers /hereinafter referred to as "employees"/ who work under labor contracts, hired work contracts, and other similar contracts for simple jobs that do not require specific education or special skills.</p> <p>It shall be prohibited to set the basic hourly salary /wage/ of an employee working under a labor contract, a hired work contract, or other similar contracts for the job requiring certain education, special professions, and skills at the minimum wage.</p> <p>Provision specified in paragraph 3.1 of this Law shall not prevent an employee from setting his/her salary /wage/ higher than the minimum wage, and the employer or principal (hereinafter referred to as "employer") from providing a salary/wage higher than the minimum wage.</p> <p>The minimum wage shall be determined by the tripartite National Committee for Labor and Social Consensus, which has the representatives of the state-level organization that represents and protects the rights and legal interests of the Government, the employer, and the employee.</p> <p>The tripartite National Committee for Labor and Social Consensus shall set the minimum wage once every two years.</p> <p>An employer who employs an employee under a labor contract or a hired work contract or other contracts equivalent to them shall be obliged to pay him/her a basic salary /wage/ not less than the amount determined by the tripartite National Committee for Labor and Social Consensus.</p>	2010 (revised edition)	2015, 2021 (revised edition), 2022-

Name of the Law	Summary description	Year Adopted	Year of Amendment
Law on Pensions, Benefits, and Payments for Industrial Accidents and Occupational Diseases to be Issued from the Social Insurance Fund	<p>This Law regulate relations in connection with the establishment and issuance of pensions, benefits, and payments from the insurance fund for industrial accidents and occupational diseases, providing discounts and exemptions of the premiums, and the creation of a database.</p> <p>Under the law, sick leave is compensated from the Government-run social insurance program, except for the first five days of the leave. Leave is provided as determined by the designated medical commission at the local hospital. The compensation rate is determined by the social security legislation and depends on the number of years the employee has worked. The first five days of the leave are to be paid by the employer. Employment of a worker is secure during the term of sick leave.</p> <p>There is provision for benefits in the case of industrial accidents and occupational diseases if the accident occurred at workplace or in discharge of duties elsewhere, before or after work and on the way to and from work. The law provides the following benefits to the insured persons: Disability pension; Dependent's pension; Temporary disability benefit; and Rehabilitation costs.</p>	2023 (revised edition)	-
Law on the Promotion of Employment	The purpose of the law is to create a legal framework to support employment of the population and its type, scope, funding and organization of the system in order to regulate employment.	2011 (revised edition)	-
Law on Ensuring Gender Equality	<p>This law specifically ensures gender equality in political, legal, economic, social, cultural and family relations, and regulates relations related to their implementation.</p> <p>It requires gender mainstreaming into law and policy development as well as into all activities of organizations – agencies related to law and policy-making.</p> <p>The Law defines General principles and policy to ensure of gender equality (Article 5);</p> <p>Prohibition of gender discrimination (Article 6);</p> <p>Special measures to ensure equality of men and women (Article 7); Guarantees on ensuring gender equality in state structure, economic, social and cultural spheres (Chapter Two); institutional arrangements (Chapter Three); Filing of complaints on the violation of gender equality (Article 23);</p> <p>Resolution of complaints on violation of the ensuring gender equality (Article 24); and Liabilities imposed on violations of the Law.</p> <p>The guarantees for equality as defined in the LPGE are reflected in the relevant provisions and are being implemented in the Law on Families, Labour Code, Law on Promoting Employment, Package of Laws on Education 2002, the Law on Health, the Law on Child Protection, Law to Combatting Domestic Violence, Law on Combating Human Trafficking and the Law on Elections.</p>	2011	Multiple amendments

Name of the Law	Summary description	Year Adopted	Year of Amendment
Law on Children Protection	This law explicitly confirms children's right to be protected from corporal punishment.	2024 (revised edition)	-
Law on Combating Domestic violence	This law addresses violence against women and girls.	2016 (revised edition)	2019, 2021, 2022, 2023-
Law on Human Rights of Persons with Disabilities	This Law governs relations concerning identification of principles, rights, responsibilities and participation of government organizations, individuals and legal entities in ensuring, enforcing and safeguarding equitable rights of persons with disabilities to participate in social life.	2016	2021, 2022, 2023-
Law on Resolution of Petitions and Complaints from Citizens to state authorities and public officials	This law partly addresses grievance mechanisms. The Law stipulates that governmental bodies are to respond to inquiries and complaints from citizens and must do so within 30 calendar day. If necessary, this period shall be extended for up to 30 days by an executive officer of a particular organization. A petitioner or a complainant shall be informed of the extension of this period.	1995	Multiple amendments
Law on Land Use Fee	This law defines land fee payers (Mongolian citizens, business entities, or organizations possessing or using land based on the decision for land possession and use in accordance with legislation, and foreign diplomatic missions and consular offices, representative agencies of international organizations, foreign legal entities and citizens, and stateless persons that use land shall be land fee payers); land subject to land use fees (Fees shall be charged for land falling under the main classification of the unified land territory specified in the Article 10 of the Land law and special usage land and for land possessed or used by citizens, business entities, or organizations according to decision made by competent authority, which have power to decide to let someone possess or use land); defines fair value of land; indicators used in estimating land fees and determining the indicators; rate and percentage of land fees; exemptions from land fees; as well as resolving disputes on land fees.	1997	Multiple amendments
Minister of Environment and Green Development, Ordinance A-117 (Inclusion of social impacts in DEIA)	The Ordinance sets out requirements for disclosure of the DEIA results and consultation with the local community. It stipulates that the DEIA company/consultant should obtain feedback from local government, potentially affected persons and local residents. It also requires that the DEIA consultant organises project-specific engagement selecting appropriate measures to ensure participation and disclose project information. The following methods are identified as useful: sample surveys, questionnaires, interviews, community resource mapping, open discussions and focus group discussions.	2014	-

Name of the Law	Summary description	Year Adopted	Year of Amendment
	<p>The DEIA Report must include the following information:</p> <ul style="list-style-type: none"> • Meetings and consultations with the project's affected persons and project stakeholders, surveys conducted, when and how information was disclosed; participants attendance; • Main themes discussed, information on major issues raised during consultation; and • Reasonable suggestions raised during consultations which should be reflected in project planning, implementation and operation. <p>Where a project covers the territory of several <i>baghs</i> and <i>soums</i>, the DEIA consultant will present the DEIA findings at public meetings in the affected <i>baghs</i> to solicit further concerns and suggestions. The DEIA consultant will also inform the <i>khurals</i> in the affected <i>soums</i> and obtain the <i>khural</i> members' views about the project.</p>		
Minister of Environment and Green Development, Ordinance A-03 (Public consultation procedure)	<p>This Ordinance applies to Environmental Strategic Impact Assessment, Cumulative Impact Assessment and DEIAs. The following is required: Information disclosure and transparency of, and access to, information, ensuring exchange of information; consultation and negotiation between proponents of development policy, programs and plans and potentially affected people (directly and indirectly affected), local communities and other organisations; use of data and suggestions by project stakeholders in designing mitigation measures; respect for local peoples' traditional culture, traditions, values, traditional way of life and rights. Information on potential negative impacts on the environment and human health should be open and accessible with citizens and the public provided free access to this information.</p> <p>The public participation required during the DEIA process is as follows:</p> <ul style="list-style-type: none"> • The DEIA will ensure public participation at assessment stages; • People's feedback on predicted impacts will be obtained using a participatory approach; • Direct and indirect impacts will be assessed using such tools like consultation, discussions, surveys and cover livelihoods and social issues; • The project proponent will provide affected communities the information on the project and its positive and negative impacts, and mitigation measures; • The DEIA Consultant and Project Proponent will, within 15 days after completion of the DEIA Report and Environmental 	2014	-

Name of the Law	Summary description	Year Adopted	Year of Amendment
	<p>Management Plan, disclose these documents to the bagh/khoroo Public meetings and seek feedback;</p> <ul style="list-style-type: none"> Where a project covers the territory of several <i>baghs</i> and <i>soums</i>, the DEIA Consultant will communicate the DEIA results at each <i>bagh</i> public meeting and <i>soum's khural</i> to get their feedback and suggestions; Affected communities will provide their feedback on the proposed Project before a final decision is made; The Project Proponent, Governors of <i>soums and baghs</i>, and <i>aimag</i> Environmental agencies are responsible for providing access to the approved DEIA Report; The Project Proponent has to report to communities and the public at least once a year on Project implementation; Grievances on gaps in the DEIA Report may be logged by people/communities to the Project, local authority and the Ministry in charge of environmental issues; The Ministry in charge of environmental issues shall resolve grievances within the scope of the law. In the event that a person or community laws does not agree with the decision, they may lodge a complaint with the courts. 		

Source: ESIA Team

Environmental Impact Assessment Requirements

- 4.3.10 The EIA requirements of Mongolia are regulated by the Law on EIA (1998, amended 2002 and renewed again in 2012) and the purpose of the EIA law is environmental protection, the prevention of ecological imbalance, the regulation of natural resource use, the assessment of environmental impacts of projects and procedures for decision-making regarding the implementation of projects. The terms of the law apply to all new projects, as well as rehabilitation and expansion of existing industrial, service or construction activities and projects that use natural resources. The Minister of Environment and Green Development, Ordinance A-117 of 2014 covers the need for social impacts in the EIA.
- 4.3.11 The type and size of the planned activity determines whether the responsibility falls to the Ministry of Environment and Climate Change (MECC) (formerly the Ministry of Environment and Tourism (MET)), or the aimag (provincial) government-level environmental department. The local EIA process has the following steps:

Table 4-5 National EIA Process

Step	Description
Environmental Baseline Assessment	Conducted to establish current environmental conditions.
Submission of General Environmental Impact Assessment (GEIA)	The application package, including the Feasibility Study/design documents, reference letters from Soum and Aimag governments, an archaeological and paleontological survey report by accredited institutions as per law on Land and the Protection of Cultural

Step	Description
	Heritage, and other supporting materials—must be submitted to the Ministry of Environment and Climate Change (MECC) by the client, through the PIU and/or the MoE.
Issuance of GEIA by MECC	MECC issues the GEIA, which includes the Terms of Reference (ToR) and the timeline for preparing the DEIA. The timeline is generally between 3 to 6 months, depending on MECC's workload.
Preparation of Draft DEIA	The draft DEIA is prepared based on the ToR provided in the issued GEIA and guidance by the MECC.
Public Disclosure and Feedback	The draft DEIA is disclosed to the public and affected communities. Feedback from affected people is reviewed and, if reasonable, incorporated into the final DEIA.
Submission of Final DEIA	The final DEIA, incorporating relevant public input, is submitted to MECC for review and approval.

4.3.12 At the time of writing, the GEIA has been submitted to the MECC.

Key Energy Laws and Resolutions

Energy Law, 2001 (multiple amendments)

4.3.13 The Energy Law is the primary legislation governing energy generation, transmission, distribution, consumption and dispatching activities in Mongolia. It establishes the legal framework for transitioning the energy sector from a centrally planned system to a market-based one. The law introduced the Energy Regulatory Authority, an independent energy regulator, delegating powers and responsibilities to key institutions managing and operating the energy sector. Since the establishment of the Energy Regulatory Authority (known as the Energy Regulatory Commission since 2012), energy regulation has been in place for over two decades. The Energy Law aims to foster competition and enhance private sector participation and investment. It details the roles of the Government and State in energy provision and outlines the powers granted to aimags and soums.

4.3.14 The Energy Law fixes the power of the Energy Regulatory Commission to grant, extend, and repeal licenses for activities including, but not limited to, electricity and/or heat generation; electricity transmission networks, defined as a network of high voltage power lines and substations of 110kV or higher that form the main network for electricity transmission along with other power lines and substations that must be part of the network for technical and technological reasons; and electricity distribution networks, defined as power lines and substations of 110kV or less for distributing electricity from transmission network substations to consumer equipment. This law also sets out the rules for developing and implementing tariffs and pricing structures for power facilities.

Law on Energy Conservation, 2015

4.3.15 This Law regulates matters associated with efficient use of energy and its conservation. The main provisions of the Law include:

- Powers of central and local regulators on the energy conservation matters;
- Rights and obligations of energy users;
- Incentives of energy savings;
- Professional services for energy conservation measures; and
- Designation of Energy Manager position for those whose energy use exceeds Government allocated limit.

Law on Electricity, Heat and Coal Tariff, 1995

- 4.3.16 This law regulates mandatory payment by users for their electricity, heat energy, and coal supply services agreed by contractual obligations.

Law on Renewable Energy, 2007 (multiple amendments)

- 4.3.17 This law aims to promote green and sustainable energy development in the country. The law mandated a fixed feed-in tariff for electricity generated by renewable energy sources, i.e., wind, hydro and solar power. Major amendments were made in 2019, whereby the previous tariff regime which consisted of the minimum and the maximum tariffs was discarded and a cap for renewable energy tariffs with no minimum (floor) tariff was introduced. Under the Amendments, any renewable power purchaser would need to submit to the Energy Regulatory Commission evidence (assurance) of availability of financing necessary to build, and to launch, the facilities to produce power.
- 4.3.18 The producer will be responsible for financing technical connection of its generation facilities to the nearest connection point (i.e., substation) of the transmitter.
- 4.3.19 A power producer (seller) would enter into a PPA with the Mongolia's grid operator (purchaser) - the National Dispatch Centre (the "NDC").
- 4.3.20 The Amendments introduce the concept of competitive procurement of renewables – specifically, procurement will be done by way of auctioning. It will be the MOE who will adopt the procedures regulating the competition and carry out the procurement.

Energy Resolutions

- 4.3.21 The following resolutions are relevant:
- Mongolian Government Resolution No. 97 of 18 March 2020 – this Resolution sets out specific RoW as provided in Section 2.7 in Chapter 2 Project Description.
 - Annex 1 to Government Resolution No. 97 of 2020 - Rules for the Use of Electric Power.
 - Annex 3 to Government Resolution No. 97 of 2020 - Regulations on the Protection of Electrical Transmission Infrastructure.
 - Mongolian Government Resolution No. 340 On Taking Certain Measures Regarding Services to Be Implemented Through the Private Sector and Non-Governmental Organisations.

Energy Procedures

- 4.3.22 Several procedures have also been developed and approved for regulating the energy sector, such as:

- Operational guidance for energy infrastructures and equipment. Approved by the Minister of Infrastructure Development. Order #125 of 06 June 2003;
- Procedure for energy infrastructures and equipment installation and operation. Approved by order of the Minister for Energy. Order #87 of 10 November 2005; and
- Safety Guidance for electrical infrastructure operation. Approved by the Minister for Energy. Order #101 of 22 August 2014.

4.3.23 Government standards and construction norms relevant to the energy sector are reported under 'Energy Standards and Norms' in section 4.3.43 onwards.

Mining

4.3.24 The Project Area includes a number of mining concession licences. The following main laws and regulations regulate mining and exploration related activities in Mongolia. The relevant primary laws (as amended) are:

- The Constitution of Mongolia, 1992 (revised version 2023)
- Law of Mongolia on Land, 2002 (revised version)
- Minerals Law (revised version 2022; multiple amendments in 2022, 2023, 2024, 2025)
- Law of Mongolia on Subsoil, 1988, multiple amendments
- Law of Mongolia on Prohibiting Mineral Exploration and Mining Operations at Headwaters of Rivers, Protected Zones of Water Reservoirs and Forested Areas, 2009
- Law on Regulation for Compliance with the Law of Mongolia on Prohibiting Mineral Exploration and Mining Operations at Headwaters of Rivers, Protected Zones of Water Reservoirs and Forested Areas, 2009
- Law on National Security, 2001 (multiple amendments)
- Law of Mongolia on Nuclear Energy, 2009
- Law on Petroleum, 2014 (revised version)
- Law on Petroleum Products, 2005
- Law on Supporting Oil Refinery, 2021

4.3.25 The relevant secondary laws are:

- Law on Development Policy and Planning, and Its Management, 2020 (revised version)
- Law of Mongolia on Investment, 2013
- Law of Mongolia on Environmental Protection, 1995
- Law on Land Fees, 1997
- Law on Permits, 2022
- Law of Mongolia on Environmental Impact Assessment, 2012
- Law of Mongolia on Common Minerals, 2014
- Law of Mongolia on Protection of Cultural Heritage, 2014
- Law on the Control over Circulation of Explosives and Blasting Devices, 2013 (revised version)
- Law on Air Pollution Fee, 2010
- Law on Water, 2012 (revised version)
- Law on Water Contamination Fee, 2012 (multiple amendments)

- 4.3.26 In addition, there are policies that are approved by the Parliament, State Great Khural:
- State policy in the mineral resources sector (2014)
 - State policy on development of petroleum sector 2018-2027 (2018)
 - State policy on radioactive minerals and nuclear energy (2009)
 - Main directions for establishing and developing industrial and technological parks (2003)

- 4.3.27 The Mineral Resources and Petroleum Authority of Mongolia (MRPA) grants mining and exploration licences and monitors the operations of licence holders. The registration of licences and licenced areas is maintained by MRPA. Security over the licences is registered with the MRAM and it may terminate licences based on grounds specified by law.

Ownership

- 4.3.28 Mineral resources naturally occurring on and under the earth's surface in Mongolia are the property of the State. The State, as the owner, has the right to grant prospecting, exploration and mining rights as set forth in the terms and conditions of the Law on Minerals, 2006.
- 4.3.29 For the exploration of a Strategic Deposit where the State has conducted state funded exploration jointly with private entities and determined the proven reserve, the state can participate in up to 50% equity interest. However, in the relevant exploration of Strategic Deposit privately financed, the State may participate in up to 34% equity interest.
- 4.3.30 There are two types of mineral related licences:
- An exploration licence, under which the licence holder can explore minerals in a designated area.
 - A mining licence, under which the licence holder can mine and extract minerals.
- 4.3.31 Under the Minerals Law, only legal entities incorporated in Mongolia (that is, resident taxpayers of Mongolia) are eligible to apply for and hold exploration and mining licenses.

Licence terms

- 4.3.32 A business entity registered in Mongolia may be granted a special exploration license, provided it meets the conditions stipulated in the Minerals Law. An initial special exploration license is granted for a term of three years. The license holder may renew it up to three times, each for a period of up to three years, allowing for a maximum total duration of twelve years.
- 4.3.33 The holder of a special exploration license must submit a renewal application to MRPAM no later than one month prior to the license's expiration in order to obtain a decision on extension. The holder of a special exploration license must submit a renewal application to MRPAM no later than one month prior to the license's expiration in order to obtain a decision on extension. The holder of a special exploration license has the preferential right to apply for a mining license on the area where mineral resources have been identified. If the submitted application meets the conditions specified in the Minerals Law, the Mineral Resources and Petroleum Authority of Mongolia (MRPAM) may grant the right to conduct mining operations for an initial term of 30 years. Thereafter, the holder may renew the mining license twice, each for a period of 20 years, establishing a legal framework that permits mining activities for

up to 70 years in total.

- 4.3.34 The Minerals Law stipulates that a mining license shall be granted through a selection procedure for areas where mineral reserves have been identified through exploration funded by the state budget. However, since the law was enacted, only a very few licenses have been issued through announced selection processes. Holders of special licenses for mineral exploration and mining not only exercise the fundamental right to explore and extract minerals within their licensed area, but also have the right to possess and use land for purposes specified in the Minerals Law:
- Enter exploration sites and construct temporary facilities for the purpose of conducting exploration work;
 - Access mining sites, pass through, construct necessary facilities, and use them for exploration and mining activities;
 - Pass through land located outside of the mining site;
 - Access and traverse land owned or possessed by others with the consent of the owner or possessor, in order to exercise rights granted under this law; and
 - Utilize land and water resources in accordance with applicable legislation.
- 4.3.35 There is no explicit regulation under the Minerals Law, Land Law, Subsoil Law, or other related laws that specifically governs whether an interested party may possess or use land for other purposes within the licensed area of a legal entity holding a special license for mineral exploration or mining.
- 4.3.36 In certain cases, land granted to citizens and legal entities for possession and use by decision of a competent state authority or official based on the grounds specified in the Land Law may overlap with areas covered by special licenses for mineral exploration or mining. In most instances, the parties involved, including the mineral license holders and land users, choose to resolve such situations through negotiation. However, in some cases, land disputes are settled through court proceedings.
- 4.3.37 In addition, the Government has the right to acquire areas covered by special licenses for mineral exploration or mining for state-specific needs or protection purposes, based on a defined objective and timeframe.

Granting of Exploration Licence

- 4.3.38 The MRPAM grants special exploration licenses through a selection procedure it administers. In Mongolia, mining licenses are granted through a process that can involve either a tender or an exploration license holder's request. Exploration licenses, which grant the exclusive right to apply for a mining license, are typically awarded via a competitive tender process organised by the MRPAM.
- 4.3.39 Mining licenses, on the other hand, can be granted to exploration license holders who have identified commercially viable deposits or through a tender process for areas not covered by existing exploration licenses. The MRPAM announces tenders for exploration licenses. Interested parties submit bids, including technical and financial proposals. The MRPAM evaluates the bids and selects the best proposal. If the bid is successful, the MRPAM grants an exploration license, which is valid for an initial period of three years, extendable up to three times for an additional three years each. Holders of exploration licenses have the exclusive right to apply for a mining license for the same area if they deem the deposit commercially viable. If an exploration license holder finds a commercially viable

deposit, they can apply for a mining license for the same area. If a mining license is sought for an area not covered by an existing exploration license, the MRPAM may conduct a tender process.

Special Protection areas

- 4.3.40 A summary of the primary legal frameworks related to special protection areas is provided below.

Law on Environmental Protection, 1995

- 4.3.41 The State Great Khural holds the power to approve and revise the list of endangered animal and plant species, and to designate specific natural sites for special state protection. Citizens' Representative Khurals and Governors of Aimags and the Capital City hold power to make decisions to place natural sites that are not under state special protection under local protection, to define their boundaries and protection rules, and to monitor compliance with these rules.

Law on Special Protected Areas, 1994

- 4.3.42 The law regulates relations concerning the utilization of areas designated for special protection, as well as the preservation and safeguarding of natural landscapes. Its purpose is to maintain the distinctive features of natural zones and belts, their unique formations, and the habitats of rare and endangered fauna and flora, along with historical and cultural sites and scenic areas. It also supports the study and identification of their natural evolution.
- 4.3.43 These areas fall under four key categories. A strictly protected area is placed under State Special Protection to preserve environmental equilibrium. It exemplifies the unaltered characteristics of distinct ecological zones and is kept in its original state due to its remarkable scientific importance. A natural complex area maintains much of its natural integrity and is recognized for its rich combination of historical, cultural, scientific, and ecological value. Nature reserves are designated to protect, restore, and conserve specific natural resources, unique environmental features, or irreplaceable ecological assets. Lastly, monument areas aim to preserve outstanding natural formations and traces of cultural or historical heritage, ensuring these treasures remain in their authentic condition and are passed on to future generations.
- 4.3.44 A province has the right to designate certain areas within its territory as locally protected zones. Locally protected areas may be governed by a management plan, which is approved by the respective Provincial or Capital City Citizens' Representative Khural under established procedures.
- 4.3.45 Mongolia officially designated 107 areas as State Special Protected Zones under a law first passed in 1994. These areas now make up nearly 19.8% of the country's land, showing Mongolia's strong commitment to protecting nature.¹²
- 4.3.46 According to Mongolia's long-term development policy, Vision 2025, the country aims to place unique ecosystem such as freshwater resources and the headwaters of rivers under special protection to preserve their natural state. Ecosystems with distinct characteristics and high ecological value will also

¹² Available at: <https://eic.mn/spa/>

be safeguarded to maintain their original condition and ensure the sustainability of ecosystem services. The expansion of the national network of Special Protected Areas is expected to make a significant contribution to supporting global ecosystem functions.

Order No. 07 of the Minister of Environment, dated January 10, 2000, Regarding the Designation of Land under Local Protection

- 4.3.47 The 2000 Ministerial Order issued by the Mongolian Minister of Nature and Environment establishes a formal procedure for designating and managing areas under local protection. Its primary aim is to safeguard regions of ecological, cultural, historical, and scientific significance through sustainable use and preservation efforts. Local authorities including governors and citizens' meetings are empowered to identify such areas and propose protection measures based on specific criteria, such as biodiversity value, rare species presence, unique landscapes, and tourism potential. Protected zones are classified into natural resource areas and sites of cultural or historical interest, with clearly defined usage rules. The order also outlines conditions under which resource-rich land may be excluded from protection following expert assessment. Funding for locally protected areas is derived from government budgets, environmental service fees, tourism income, and community contributions. Overall, the order reinforces Mongolia's commitment to conserving its natural heritage while promoting responsible development and education.

Key Land Use and Tenure Laws

- 4.3.48 The key land use and tenure laws are summarised below. A more detailed description is provided in the LARF.

Mongolian Constitution, 1992

- 4.3.49 Under the Mongolian Constitution, 1992 all land, except that given to the citizens of Mongolia for private ownership, subsoil, natural resources and water are the property of the State. The Constitution allows the State to grant ownership of land to Mongolian citizens, but they shall not transfer such land to foreign entities. Land may be leased to foreign entities.

Civil Code of Mongolia, 2002

- 4.3.50 The Civil Code of Mongolia (2002) is applicable to land acquisition by an entity, insofar as it regulates transactions and contracts. Chapter 10 of the Civil Code defines property and assets, including land and other immovable property. Chapter 11 details provisions for their possession by legal acquisition and Chapter 12 for property ownership by individuals and other legal persons.

Law on Land, 2002

- 4.3.51 This law regulates the 'ownership', 'possession' and 'use' of land. The following definitions are important in the context of the law:
- Land includes the surface of land and airspace above it.
 - The 'ownership' of land means to have control over land and a right to dispose of it.
 - The 'possession' of land means to have control over land in accordance with a contract (the

possession certificate¹³) that sets out the permitted use and other terms of possession.

- The 'use of land' means the right to undertake legitimate and concrete activity on a land parcel to utilise some of the useful characteristics of the land in accordance with a contract granted by those who 'own' or 'possess' the land.

4.3.52 A land possessor shall have the following obligations in accordance with this law. These include:

- Business entities and organizations possessing land shall pay land fees in accordance with relevant laws and agreements;
- Responsible for maintaining the condition and quality of land at its own expense;
- Rehabilitate and landscape disturbed land due to excavation activities for its own expenses;
- The condition and quality of the land used shall be inspected by a licensed organization once every five (5) years at the Project proponent's own expense and conclusion shall be issued;
- Comply with the terms of the land use agreement;
- Comply with the requirements of the legislation on efficient and rational use and protection of land, environmental protection and the general requirements set by the state authorities in connection with land use;
- Land fees shall be paid within the timeframe imposed by the relevant land office.

4.3.53 Relevant rules and regulations related to this law are:

- Regulation on issuing land possession and use rights certificates (Annex to Order No. A / 187 of 2021 of the Director of the Department of Land Management, Geodesy and Cartography). This regulation regulates activities to receive and register requests from citizens, business entities and organizations for land possession and use; conducting desktop and field surveys; drafting decisions; to fix the turning point of the parcel areas to the ground; certification in the unified land cadastre database system; to register in the state register of property rights; to issue a land possession and use right certificate; and conclude an agreement based on the fulfilment of contractual obligations.
- Regulation on conducting assessment of state of the land and quality assurance (Annex 1 to Government Decree 28 issued in 2003). The regulation is applied when conducting land quality and state of the land assessment for: land to be owned by a Mongolian citizen; land to be used by a foreign country, international organization, foreign economic entity and foreign invested organization, foreign citizen and person with no citizenship; and land which is already under the use of the applicant; and rest of the state-owned land under nobody's ownership, possession or use. In accordance with this regulation, scheduled land quality assurance assessment shall be completed once every five years on all types of land (Article 1.2) and at the expiration of the land use permit (Article 1.3). When conducting land quality assurance assessment, the land user or the requester of such service has to be present (article 5.27). The cost for conducting land quality assurance assessment for the land used by economic entity shall be covered by the land user (article 38.2).

¹³ A 'land possession certificate' means a document certifying the land possession right of a citizen, business entity or organization of Mongolia (Law on land, 3.1.7).

Law on Allocation of Land to Mongolian Citizens for Ownership, 2003

4.3.54 The purpose of this law is to govern the *allocation of land to citizens for ownership and related issues arising out of such allocation*"; including, for example, size of land to be allocated, grounds for determining the value of land to be allocated, tax on land, rights and duties of citizens who acquire land for ownership, certifying rights of citizens to own land, expropriation of land owned by citizens, and filing complaints and resolution. According to this law, land shall be allocated to citizens for the following purposes:

- For family needs; or
- For agricultural purposes.

Customary Land Use

4.3.55 The state recognises customary law with respect to use rights to pastureland. Customary law consists of "customs that are accepted as legal requirements or obligatory rules of conduct; practices and beliefs that are so vital and intrinsic a part of a social and economic system that they are treated as if they were laws".¹⁴ Customary law is applicable for the allocation of grazing rights between herder families and communities in Mongolia.

Environmental Standards

4.3.56 Mongolian environmental national standards applicable to the Project are listed in **Table 4-6**. Those applicable to the energy sector are addressed in the following section.

Table 4-6 List of Mongolian Environmental National Standards (MNS) Applicable to the Project

#	Name of Mongolian National Standard (MNS)
1	MNS 17.5.13. 1980. Environmental Protection: Rehabilitation of eroded land, terms and definitions
2	MNS 5914:2008. Environment. Land reclamation. Terms and definitions
3	MNS 5916:2008. Environment Requirements for fertile soil removing and its temporary storage during the earth excavation
4	MNS 5918:2008. Environment. Re-vegetation of destroyed land. General technical requirements
5	MNS 4585:2016. Air quality. General technical requirements
6	MNS 4991:2000. Occupational safety and health. Requirement for method of determination of toxic substances concentration in the air of working zone
7	MNS 5885:2008. Acceptable concentration of air pollutant elements. General technical requirements
8	MNS 6063:2010. Air quality. Acceptable concentration of pollutant elements for atmospheric air in public area
9	MNS 5803:2007. Occupational safety and health. General requirements for lead content in workplace air and the workplace

¹⁴ Black's Law Dictionary, 2007.

#	Name of Mongolian National Standard (MNS)
10	MNS 4586:1998. Water quality. General requirements
11	MNS 3342:1982. General requirement for preventing from groundwater pollution
12	MNS ISO 5667-11:2000. Water quality. Sampling. Part 4: Guidance on sampling of groundwater
13	MNS 6148:2010. Water quality. Maximum limit of substance contaminating the ground water
14	MNS 4943:2015. Water quality. Effluent treated wastewater. General requirements
15	MNS 6230:2010. Identification of wastewater discharge point. General requirements
16	MNS 5924:2015. Pit latrine and sewage pit. Technical requirements
17	MNS 3475:2003. Plant quarantine. Terms and definitions.
19	MNS 5850:2008. Soil quality. Soil pollutants elements and substance
20	MNS 3298:1991. Soil. General requirements for sampling
21	MNS 2305:1994. Soil. Procedure for sampling, packaging, transportation and storage.
22	MNS 5546:2005. General requirements for assessment of soil erosion and degradation of vegetation cover in pasture lands.
23	MNS 3297:1991. Environment protection. Soil. The norm for sanitary condition of soil in town and residential areas
24	MNS 4643:1998. Occupational safety and operational security signs. Colour of safety signs.
25	MNS 4994:2000. Occupational safety and health. Vibration. Requirement for general safety.
26	MNS 4994:2000. General requirements for measuring vibration.
27	MNS 5029:2011. Occupational safety and health. Label and marking of toxic and hazardous chemicals
28	MNS 5079:2001. General safety requirements for loading and unloading.
29	MNS 5105:2001. Occupational safety. Industrial hygiene. Hygiene protection areas norm, general requirements.
30	MNS 5146:2002. Occupational safety. Industrial hygiene. Electric safety. Protective conductive earth, neutralling.
31	MNS 5390:2004. Occupational safety and health. Fire safety of electricity. General requirements.
32	MNS 4930:2000. Safety of machinery. General requirements.
33	MNS 4969:2000. Organization of a training. Basic rules.
34	MNS 4643:1998. Occupational safety. Colour of safety signs.
35	MNS 4994:2000. Occupational safety and health. Vibration. Requirement for general safety.
36	MNS 0012.4.005:1985. Device and method for protection from noise.
37	MNS 5003:2000. General requirements for the measurements of noise.
38	MNS 5150:2002. Electric safety. General requirement.
39	MNS 5145:2002. Electric safety. Maximum voltage and maximum level of current.

#	Name of Mongolian National Standard (MNS)
40	MNS 5149:2002. Industrial hygiene. Power frequency electric fields. Permissible levels of field strength and requirements for control at workplaces.
41	MNS 5002:2000. Occupational safety and health. Noise. Requirements for general safety.
42	MNS 4931:2000. Personal protective equipment. Types and general requirements.
43	MNS 5388:2004. Hearing protection equipment (ear plug, ear muff). General technical requirements.
44	MNS 5389:2004. Eye protection equipment-Goggles.
45	MNS 5621:2006. Head protection equipment-Hard hat.
46	MNS 5622:2011. Safety gloves. General requirements.
47	MNS 5623:2006. Foot protection equipment. Safety boots.
48	MNS 5344:2011. General requirements for transportation of domestic waste.
49	MNS 5282:2003. Fire safety of petroleum products. General requirements.
50	MNS 5566:2005. Protection against fire. Fire protection instrument for building. Technical requirements.
51	MNS 4244:1994. Fire safety. General requirements.
52	MNS 3629:1983. Petroleum, petroleum product. Packaging, labelling and transportation.
53	MNS 4596:2014. Use of road signage, traffic light, protective bracket, and direction signs.
54	MNS 5645:2006. Transportation of construction materials in pieces and bulk. Classification, transportation condition. General requirements.
55	MNS 6515:2015. Passages for wild ungulates altogether highways and railways in steppe and gobi areas. General requirements.

Source: ESIA Team

Energy Standards and Norms

4.3.57 Mongolian energy national standards applicable to the Project are listed in **Table 4-7**.

Table 4-7 List of Mongolian Energy National Standards (MNS) Applicable to the Project

#	Name of Mongolian National Standard (MNS)
1	MNS 5350:2003. Power station, electrical network. Terms and definitions.
2	MNS 2919:2003. Power energy and electrification. Terms and definitions.
3	MNS 6522:2015. Overhead transmission lines for 35-750kV. General requirements for construction.
4	MNS 3236:1989. Technical Requirements for Reinforced Concrete Structures of Outdoor Distribution Facilities with a Capacity of 35-500 kW.
5	MNS 5870:2008. Non insulating wire for high-voltage transmission lines. Technical requirements.
6	MNS 5872:2019. Service requirements provided to consumers by electricity supplier.
7	MNS 6525:2015. Power systems, data transmission and collection of the federal system. Requirements for construction.

#	Name of Mongolian National Standard (MNS)
8	MNS IEC 61089:2000. Round wire concentric lay overhead electrical stranded conductors.
9	MNS IEC 62271-202:2015. High-voltage switchgear and control gear - Part 202: Highvoltage/ low-voltage prefabricated substation.
10	MNS IEC 60652:2019. Loading tests on overhead line structures.
11	MNS 4643:1998. Occupational safety. Colour of safety signs.
12	MNS IEC 60076-2:2014. Power transformers. Part 2. Temperature rise.
13	MNS IEC 60076-10:2023. Power transformers – Part 10: Determination of sound levels.
14	MNS IEC 60076-7:2016. Power transformers - Part 7: Loading guide for oil-immersed power transformers.
15	MNS IEC 60076-8:2019. Power transformer. Part 8. Application guide.
16	MNS IEC 60214-1:2022. Tap-changers – Part 1: Performance requirements and test methods.
17	MNS IEC 60214-2:2020. Tap-changers – Part 2: Application guide.
18	MNS IEC 60273:2022. Characteristics of indoor and outdoor post insulators for systems with nominal voltages greater than 1,000 v.
19	MNS IEC 60282-2:2022. High-voltage fuses – Part 2: Expulsion fuses.
20	MNS IEC 60660:2022. Insulators – Tests on indoor post insulators of organic material for systems with nominal voltages greater than 1000 V up to but not including 300 kV.
21	MNS IEC TS 61463:2022. Bushings-Seismic qualification.
22	MNS IEC 62305-4:2022. Protection against lightning. Part 4: Electrical and electronic systems within structures (IDT).
23	MNS IEC TR 62357-1:2022. Power systems management and associated information exchange – Part 1: Reference architecture.
24	MNS IEC 61850-7-3:2023. Communication networks and systems for power utility automation – Part 7-3: Basic communication structure – Common data classes.
25	MNS IEC 60071-1:2023. Insulation co-ordination – Part 1: Definitions, principles and rules.
26	MNS IEC 62305-2:2023. Protection against lightning – Part 2: Risk management.

4.3.58 Mongolian energy construction norms and rules applicable to the Project are listed in **Table 4-8**.

Table 4-8 List of Mongolian Energy Construction Norms and Rules Applicable to the Project

#	Name of Mongolian Norm	Approved via
1	Rules for Electricity Usage	Annex 1 to Government Resolution No. 97 of 2020
2	Regulations on the Protection of Power Transmission Lines and Networks	Annex 3to Government Resolution No. 97 of 2020
3	Regulations on the Unified Power Grid	Annex 2 to Ministerial Order No. 127 of 2010 issued by the Minister of Mineral Resources and Energy
4	Technical Operation Regulations for Energy Equipment and Facilities	Ministerial Order No. 125 of 2003 issued by the Minister of Infrastructure

#	Name of Mongolian Norm	Approved via
5	Technical Operation Rules for Consumer Electrical Equipment	Ministerial Order No. 104 of 2006 issued by the Minister of Fuel and Energy
6	Rules for the Operation of Electrical Facilities	Ministerial Order No. 104 of 2006 issued by the Minister of Fuel and Energy
7	Regulations on the Installation of Electrical Engineering Facilities	Annex 2 to Ministerial Order No. 5 of 2014 issued by the Minister of Energy
8	Safety Regulations for the Installation of Electrical Engineering Facilities	Annex to Ministerial Order No. A/124 dated June 2, 2025, issued by the Minister of Energy
9	Electrical Engineering Work	BND 3.0506-90
10	Technological Work Card for the Installation of 35 kV ZW7-40.5 Type Vacuum Circuit Breaker	Annex 4 to Ministerial Order No. 114-B of 2017 issued by the Minister of Energy
11	Material Consumption Norms for Power Installations and Equipment, EHN-8-83-2019	Annex to Ministerial Order No. 169 dated June 25, 2019, issued by the Minister of Energy
12	Technological Work Card for Measuring Grounding Resistance of Overhead Transmission Lines and Substations	Annex 3 to Ministerial Order No. A/194 of 2022 issued by the Minister of Energy
13	Protection of building structures from corrosion	Annex 1 to Ministerial Order No. 256 of 2011 issued by the Minister of Roads, Transportation, Construction and Urban Development

National permits

4.3.59 Mongolian national permits for electricity generation, transmission and operation are as follows:

- Preparation of feasibility studies and design documentation for electrical transmission lines and substations 4–110 kV and above
- Electricity Distribution
- Installation, testing, adjustment, and maintenance of power transmission lines and substations with voltages of 220 kV and above
- Operation, maintenance, assembly, testing, adjustment, and related services for electrical transmission lines and substations
- Construction of Energy facilities
- Regulated supply of energy
- Un-regulated supply of energy
- Electricity Import and Export
- Operation of professional training activities
- Establishment, operation, and service provision of telecommunications network
- Importation, cross-border transportation, and use of hazardous and toxic chemicals

5 Approach to the ESIA

5.1 Introduction

5.1.1 This chapter outlines the approach to the ESIA, in particular the objectives and overall strategy for the ESIA. Scoping has been an ongoing process, which is documented within this chapter. The key stages of the ESIA process have covered the following, and each stage is discussed in more detail in this chapter:

- Inception
- Site Reconnaissance
- Gap Analysis and Scoping
- Stakeholder engagement
- Policy, legal and institutional review
- Baseline conditions
- Impact assessment and mitigation measures
- Cumulative effects
- ESIA disclosure package

5.2 Objectives of the ESIA

5.2.1 The key objectives of the ESIA are as follows:

- Set the legal and policy framework
- Document the consultation process
- Consider the alternatives to the Project
- Establish baseline environmental conditions at the Project Site and within the surrounding area, together with the key sensitive receptors
- Identify likely significant effects of the Project so that some effects can be avoided, prevented, reduced or, if possible, offset
- Identify, predict and assess the environmental effects associated with the Project
- Identify, predict and qualitatively assess the cumulative effects of the Project including those associated with the other developments
- Identify suitable mitigation measures to prevent, reduce or, if possible, offset likely significant adverse effects on the environment and identify the likely significant residual effects following the implementation of these measures
- Identify monitoring measures where likely significant residual effects are identified

5.2.2 Stakeholder engagement and consultation is an important component that sits across and informs all the above stages.

5.3 Inception

5.3.1 A kick-off meeting (KOM) was held with EBRD on 27 March 2025. Attendees were:

- Yevgeniya Afanasenko, EBRD
- Viktoriya Protsenko, EBRD
- Zhanar Zhakeyeva, EBRD
- Amra Erdenebaatar, EBRD
- Vadim Sinitsa, EBRD
- Rachael Bailey, Arcadis
- Enkhtulga Tumurbaatar, EcoTrend
- Tserenkhand Gurbadam, EcoTrend

5.3.2 A KOM was held with the MoE on 04 April 2025. Attendees included:

- Rachael Bailey, Arcadis
- Enkhtulga Tumurbaatar, EcoTrend
- Tserenkhand Gurbadam, EcoTrend
- Amra Erdenebaatar, EBRD
- Vadim Sinitsa, EBRD
- Munkhtur - Senior specialist, Strategic Planning Division, MoE
- Munkhbadral - Specialist responsible for smart grid and information technology, MoE

5.4 Site Reconnaissance

5.4.1 A site reconnaissance was undertaken by the Arcadis and EcoTrend Team between 12 May and 17 May 2025. The purpose of site reconnaissance and survey work was to familiarise the ESIA Team with key site locations to inform the inception scoping process; and to ensure sufficient evidence is gathered to support the exclusion of topics that do not warrant further consideration. Meetings were also held with the MoE, PIU and NPTG in Ulaanbaatar.

5.4.2 Attendees on the site reconnaissance were:

- Rachael Bailey – Arcadis Environment specialist
- Richard Anderton – Arcadis Ornithologist / Ecologist
- Enkhtulga Tumurbaatar – EcoTrend Local ESIA Lead
- Tserenkhand Gurbadam – EcoTrend Social and Gender Specialist
- Nomin-Erdene – EcoTrend Ecologist
- Shirmenbaatar Tsevegjav – Choir-Sainshand OHTL PIU Electrical Substation RPA engineer
- Baatarchuluun Purevdagva – Choir-Sainshand OHTL PIU Environmental and Social Officer

5.5 Scoping

5.5.1 A Scoping Report was prepared by Arcadis and submitted to EBRD in June 2025 (**Appendix A**). Scoping aims to identify the potential impacts on environmental and social receptors arising from

project activities that will need to be further assessed and to determine how this assessment will be undertaken. The primary output of scoping is the Scoping Report, which sets out the potential impacts that will be considered in the ESIA as well as those scoped out (with reasons why).

5.6 Stakeholder Engagement

- 5.6.1 Stakeholder engagement has been incorporated at all stages of the ESIA process. The objective of this engagement is to ensure that legislative requirements are met; sources of information and expertise are identified; stakeholder concerns and expectations are registered and addressed; and Affected Communities have the opportunity to discuss Project risks and impacts, and proposed mitigation and monitoring measures. A stand-alone SEP has been prepared as a stand-alone document. This is a live document that will be updated throughout future Project phases. A summary of the stakeholder engagement process is provided in **Chapter 6**.

5.7 Policy, Legal and Institutional Review

- 5.7.1 The policy, legal and institutional framework review for this Project is described in **Chapter 4**. Understanding the legal and policy framework ensures that the Project has been assessed, as far as possible, against relevant existing environmental and social regulations and guidelines.

5.8 Approach to Impact Assessment

- 5.8.1 This ESIA has been undertaken in accordance with:
- EBRD's 2019 ESP and relevant PRs
 - Relevant EU environmental standards
 - Relevant Mongolian environmental and social legislation and regulations
 - Relevant international conventions and protocols relating to environmental and social issues, as transposed into national legislation
 - Good International Practice (GIP)
- 5.8.2 Further details of the above are set out in **Chapter 4**.

Baseline

- 5.8.3 Baseline data has been collected to characterise the existing environmental and social receptors and conditions in the Study Area and trends in such conditions including the situation that would prevail in the absence of the Project. The baseline data has been compiled from a number of existing sources and site survey, as summarised below:
- Secondary data:
 - Spring 2022 bird survey (Sustainability East Asia and Wildlife Science and Conservation Centre of Mongolia, 2024)
 - Autumn 2024 bird survey (Arcadis, 2024)

- Design information:
- Map of Integrated Energy System, 2021
- Coordinates of turning points
- Official letter regarding Grid study/Operating mode analysis review, 4 April 2021
- Technical design of the 220kV Transmission line
- Technical Conditions of the 220 kV Dual-Circuit Overhead Line: Tsagaan Suvarga – Sainshand, 13 April 2021
- Route Selection Brief for Overhead Transmission Line,
- Dornogovi Aimag – Budget for the Expansion of the 220/22 kV Tsagaan Suvarga substation and the Tsagaan Suvarga–Sainshand 220 kV Double-Circuit Overhead Transmission Line, 28 January 2022
- Design of the Transmission line and Expansion of Tsagaan Suvarga substation.
- National Statistics Office (NSO); and
- Statistical data available online and from local administrative offices.
- Field surveys:
 - Air quality surveys
 - Noise surveys
 - Landscape and visual surveys
 - Surface water and dry river beds surveys and sampling
 - Groundwater (herder wells) sampling
 - Soils sampling
 - Ecological surveys
 - Key informant interviews (KIIs)
 - Focus group discussions (FGDs)
 - Household surveys (HHS)

5.8.4 Note that as part of the social surveys the team identified any local features considered to represent heritage in its broadest sense to the local communities. Two bird surveys have been conducted across the Project Area: a spring survey in 2022 by Sustainability East Asia (SEA) and Wildlife Science and Conservation Centre of Mongolia (WSCCM)¹⁵ and an autumn and early winter bird survey was conducted in 2024 by Arcadis and EcoTrend¹⁶.

5.8.5 The methodology used in the baseline’s assessment, any consultation undertaken, the temporal and spatial extent and any limitations establishing the baseline are described in Technical **Chapters 7 – 18**. The assessment has also taken into consideration how the current baseline conditions may change going forward without the presence of the Project and, as relevant, this is presented in the Technical Chapters.

¹⁵ SEA & WSCCM, 2022. *Spring Avian Survey Report for Proposed 220 kV Overhead Power Line Between Sainshand and Tsagaan Suvarga*.

¹⁶ Arcadis & EcoTrend, 2025. *214 km Double Circuit 220 kV Overhead Power Line Between Sainshand and Tsagaan Suvarga Autumn Avian Surveys – October and November 2024*.

Technical Scope

- 5.8.6 The technical scope refers to the range of topics to be addressed in the ESIA. Annex IV, Paragraph 4 of the EIA Directive provides a list of topics to be included in an EIA as “...*population, human health, biodiversity (for example flora and fauna), land (for example, land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quality and quantity), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape*”.
- 5.8.7 During the preparation of the Scoping Report, the following topics were scoped into the ESIA:
- Air Quality
 - Noise and Vibration
 - Biodiversity, Flora and Fauna
 - Cultural Heritage
 - Landscape and Visual
 - Soils and Natural Hazards
 - Water Environment
 - Social and Community
 - Economy, Employment and Livelihoods
 - Land Use, Tenure and Displacement
 - Labour and Working Conditions
 - Climate

Temporal Scope

- 5.8.8 The temporal scope of the ESIA has considered the effects arising from the pre-construction, construction and operation and maintenance (O&M) phases of the Project. Expected timescales for decommissioning are so far into the future that there is insufficient certainty about the likelihood, type or scale of activities to determine the potential effects, and therefore these effects have not been considered. Any decommissioning work would be likely not result in effects exceeding the level of effects arising during the construction phase.
- 5.8.9 The baseline year for the assessment of construction impacts is the projected start year for construction, which is anticipated to be 2027. The construction period is anticipated to be around 24 months. Operation impacts have been assessed for the proposed opening year of the Project, which is anticipated to be 2028/9.

Spatial Scope

- 5.8.10 The spatial scope of the ESIA is described by the geographical area potentially affected by the Project. The **Project Footprint** refers to the total physical area required by the Project.
- 5.8.11 The **Project or Study Area** refers to the spatial area within which environmental and social data has been collected to assess the effects of the Project. The Project Area covers Dornogovi aimag in the

Central Region of Mongolia.

- 5.8.12 The **Area of Influence (Aoi)** is used to describe the extent over which the Project impacts will be realised. The Aoi to be assessed can vary depending upon the type of impact being considered and the attributes of the potentially affected receptors and may also extend across administrative or national boundaries; and therefore, is described in each topic assessment Chapter. In each case, the Aoi includes all areas within which significant impacts are likely to occur taking into account the:
- physical extent of the proposed works defined by the limits of land to be acquired or used (temporarily or permanently) by the Project; and
 - nature of the baseline environment and manner in which impacts are likely to be propagated beyond the project boundary.
- 5.8.13 **Associated facilities** are the facilities or activities that are not financed by EBRD as part of the project, but which in the view of EBRD are significant in determining the success of the project or in producing agreed project outcomes. These are new facilities or activities:
- without which the project would not be viable; and
 - would not be constructed, expanded, carried out or planned to be constructed or carried out if the project did not exist.
- 5.8.14 Whilst temporary access will need to be controlled, no permanent haul roads or associated facilities for this Project have been identified.

Assessment Criteria

- 5.8.15 The purpose of impact assessment is to identify and evaluate the likely significance of the potential effects on identified receptors and resources according to defined assessment criteria, to develop and describe measures that will be taken to avoid, minimise, reduce or compensate for any potential adverse environmental effects, and to report the significance of the residual impacts that remain following mitigation.
- 5.8.16 The classification of each effect identified has been assessed based on the magnitude of change (or impact) due to the Project and the sensitivity/value of the affected receptor to change, as well as other factors such as:
- Relevant legislation and planning policy;
 - International, national, regional and local standards;
 - Likelihood of occurrence of the effect;
 - Geographical extent of effect;
 - Sensitivity and/or value of the receptor;
 - Magnitude and complexity of effect;
 - Whether the effect is temporary or permanent;
 - Duration (short, medium or long-term), frequency and reversibility of effect;
 - Whether the effect is direct or indirect, secondary or transboundary;
 - Inter-relationship between different effects (both cumulatively and in terms of likely effect interactions); and

- Stakeholder feedback.

5.8.17 The classification of residual effects has been assessed taking into consideration the extent to which additional mitigation measures will prevent, reduce or, if possible, offset adverse effects or enhance beneficial effects.

Magnitude of Impact

5.8.18 The magnitude of impact for each identified receptor is predicted as a deviation from the established baseline conditions, as a result of the Project. The magnitude of these impacts is also defined within technical **Chapters 7 - 17** and has been determined where available and appropriate by quantifiable data, available appropriate national and international standards or limits (World Health Organisation (WHO) Limits, EU Quality Standards, etc.) and professional judgement. The scale used is defined in **Table 5-1**.

Table 5-1 Illustrative Example for Determining Magnitude

Magnitude	Impact type	Illustrative description
High	Adverse	Loss of resource and/or quality and integrity of resource; impact extends to national or international level.
	Beneficial	Large scale or major improvement to resource quality; enhancement; impact extends to national or international level.
Medium	Adverse	Measurable change in resource quality/integrity; medium loss of key characteristics or features; impact extends to regional level.
	Beneficial	Medium benefit to or addition of key characteristics or features; impact extends to regional level.
Low	Adverse	Minor loss or detrimental alteration to one or more characteristics or features; impact extends to the local level or immediate area.
	Beneficial	Minor benefit or addition of key characteristics or features; impact extends to the local level or immediate area.
Very low / No change	N/A	No change to the current situation.

5.8.19 With regards to the frequency and duration of an effect, the ESIA has considered whether the effect will be continual or intermittent over the identified time period. The duration of effect is defined as:

- Very short term: Less than 2 years
- Short term: 2 to 5 years
- Medium term: 5 to 10 years
- Long term: 10 to 15 years
- Very long term: More than 15 years

Sensitivity/Value of Receptors

- 5.8.20 The term *receptors* or *resources* has been used to describe features of the environment such as water resources, habitats and species which are valued by society for their intrinsic worth and/or their social or economic contribution; and social groups such as individuals and communities that may be affected by the Project.
- 5.8.21 The sensitive/valuable receptors considered within the ESIA, and their sensitivity to change, are identified within technical **Chapters 7 –17**. Sensitivity has been determined where available and appropriate by quantifiable data, the consideration of existing designations and professional judgement. The categories used, unless otherwise stated in the Technical Chapter, are shown in **Table 5-2**. Where topic specific methodology deviates from this approach, for example as a result of using topic specific guidance, this is set out in the assessment methodology section of the technical chapter.

Table 5-2 Illustrative Example for Determining Receptor Sensitivity

Importance/ Sensitivity of Receptor	Example of importance of receptors	Example of sensitivity of receptors
Very High	An attribute with a high quality and rarity on an international, regional or national scale with little or no potential for substitution.	Sensitive area or receptor with little resilience to imposed stresses.
High	An attribute with a high quality and rarity on an international or national scale with little or no potential for substitution.	
Medium	An attribute with a medium quality or rarity on a regional scale with limited potential for substitution, or an attribute of low quality and rarity on a regional or national scale.	The receiving environment or receptor has a moderate natural resilience to imposed stresses.
Low	An attribute of low quality and rarity on a local scale (town, site) with potential for substitution locally.	The receiving environment or receptor has a high natural resilience to imposed stresses.

Determining Significance of Effects

- 5.8.22 Determining the classification of effects has been undertaken using professional judgements (assumptions and value systems) that underpin the attribution of significance. Each effect has been assessed against the change of magnitude and the sensitivity / value of the receptor as shown in **Table 5-3**.

Table 5-3 Impact Significance Matrix

		Receptor/resource sensitivity/importance			
		Very high	High	Medium	Low
Magnitude of impact	High	Major	Major	Major	Moderate
	Medium	Major	Major	Moderate	Minor
	Low	Major	Moderate	Minor	Negligible
	Very Low	Moderate	Minor	Negligible	Negligible

5.8.23 The terms as used within **Table 5-3** have been defined below, applying to both beneficial and adverse effects:

- **Major effect:** These effects are generally, but not exclusively, associated with sites or features of international or national importance that are likely to suffer a most damaging impact and loss of resource integrity;
- **Moderate effect:** Effects that are considered to be important but may be key in the decision-making process;
- **Minor effect:** These effects may be raised as local factors and are unlikely to be critical in the decision-making process. They are important in enhancing the subsequent design of the Project; and
- **Negligible:** No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.

5.8.24 Unless otherwise stated in the relevant chapter of this ESIA, effects that are classified as Moderate or Major are considered to be significant effects. Effects classified as Minor or below are considered to be not significant.

Mitigation and Monitoring

5.8.25 For significant adverse effects identified through the ESIA, mitigation measures have been proposed that can be practicably implemented to prevent or reduce any significant effects on the environment, to satisfy EBRD and GIP requirements. The identification of such measures will be undertaken in parallel with the design process so that measures can be incorporated into the Project wherever feasible. Mitigation measures will be considered in line with the following hierarchy:

- **Avoid** - making changes to a project's design or location to avoid adverse effects on an environmental feature.
- **Minimise** - reduction of adverse effects through sensitive environmental treatments/design.
- **Restore** - measures taken during or after construction to repair/reinstate and return a site to the situation prior to occurrence of impacts.

- **Compensate/offset** - where avoidance or reduction measures are not available, it may be appropriate to provide compensatory/offsetting measures. It should be noted that compensatory measures do not eliminate the original adverse effect, they merely seek to offset it with a comparable positive one.
- **Improvement measures** - projects can have positive effects as well as negative ones, and the project preparation stage presents an opportunity to enhance these positive features through innovative design.

Residual Effects

- 5.8.26 The residual significance is the potential effect that remains following mitigation. This more accurately describes the effects of the Project as it is anticipated and forms the basis for the development of the stand-alone ESMP that should be followed so that significant impacts are satisfactorily mitigated.

Cumulative Effects

- 5.8.27 The EBRD PRs and the EU EIA Directive require the consideration of cumulative impacts. The cumulative effects of an action or activity can be viewed as the total effects on a resource, ecosystem, or human community of that action and all other activities affecting that resource. Cumulative impacts may arise as a result of:
- Impacts of interrelationships within the same project on a single receptor; and
 - Impacts on a resource, ecosystem, or human community of that action arising from the Project in combination with other existing, planned or reasonably defined developments.
- 5.8.28 Cumulative impacts are summarised in **Chapter 19**.

5.9 ESIA Disclosure Package

- 5.9.1 This document presents the ESIA Report for the Project. It forms one of several documents prepared to meet EBRD disclosure requirements for a Category A project as follows:
- **Non-Technical Summary (NTS)** – this presents a concise, over-arching, standalone summary of the ESIA Report, written in non-technical language.
 - **Stakeholder Engagement Plan (SEP)** – this covers the engagement undertaken to date and engagement proposed for the future phases of the Project.
 - **Environmental and Social Management Plan (ESMP)** – this provides a framework for managing (and avoiding) potential environmental and social risks and impacts for the Project. It comprises of a set of management, mitigation and monitoring measures to be taken during construction and O&M phases to manage key potential environmental and social impacts. It outlines the generic approach (and control processes) to be applied for to the Project in the development and implementation of a more detailed ESMP for Project implementation.
 - **Land Acquisition and Resettlement Framework (LARF)** – this sets out the framework for addressing potential physical and economic displacement and, if it arises, any potential physical displacement, as a result of the Project.

- **Environmental and Social Action Plan (ESAP)** – this sets out the gaps and issues identified during the impact assessment against the EBRD PRs. It also identifies the future actions required (under the responsibility of the MoE/PIU) to comply with the EBRD PRs and other Project commitments arising for example from national regulatory requirements.

5.9.2 A Public Consultation Summary report will also be prepared following the disclosure period to record the approach to and response from disclosure and related consultation activities.

6 Stakeholder Engagement

6.1 Introduction

- 6.1.1 The EBRD has categorized the Project as a Category A, which means that as part of the ESIA, a separate SEP must be prepared. A stand-alone SEP has been developed in accordance with EBRD's PR10 *Information Disclosure and Stakeholder Engagement* and the EBRD's ESP 2019.
- 6.1.2 The SEP is a 'living document' and will be developed in more detail by the MoE/PIU and the Construction Contractor, prior to the start of construction to reinforce both ownership and execution of the SEP in the Project stages. It is intended to be a document that responds to the specific and unexpected circumstances and challenges that arise in the Project Area about which stakeholders need to be informed and consulted with if they are or will be potentially affected.
- 6.1.3 As a Category A project, the Project must engage with stakeholders at every phase of the Project and their feedback needs to be built into the relevant project documents. The ESIA documents, including the SEP, are intended to be publicly disclosed for comments on the EBRD website and locally.
- 6.1.4 This chapter provides a summary of the stakeholder engagement process that has fed into the ESIA process; **a more detailed account of stakeholder identification and future engagement is provided in the stand-alone SEP.**

6.2 Identification of Stakeholders

- 6.2.1 In order to develop effective stakeholder engagement, it is necessary to identify who the stakeholders are and understand their needs and expectations for engagement, and their priorities and objectives in relation to the Project. Project stakeholders have been identified following the requirements of EBRD PR10 which takes into account individuals or groups who:
- i. are affected or likely to be affected (directly or indirectly) by the project (affected parties); or
 - ii. may have an interest in the project (other interested parties)
- 6.2.2 Project stakeholders have been identified using criteria (i) and (ii) above, based on the Project location, initially considering the administrative units associated with the Project, namely, Sainshand, Ulaanbadrakh, Saikhandulaan and Mandakh soums, in Dornogovi aimag.
- 6.2.3 Stakeholder identification has also considered those groups or individuals identified because of their potential to impact or be impacted by the Project, based on:
- The Project's activities and area of influence (Aoi);
 - Potential positive and negative Project impacts;
 - Contact by and with Project relevant government bodies and civil society and business groups; and
 - Contact made by and with organisations expressing, or likely to have, an interest in the Project.

- 6.2.4 The identification of stakeholders has also included the identification of individuals and groups that may be differentially or disproportionately affected by the Project because of their disadvantaged or vulnerable status, and/or because these individuals or any other stakeholder groups are likely to be excluded from, or unable to participate in, the mainstream consultation process or would require specific measures and/or assistance to do so.
- 6.2.5 The EBRD ESP definition of vulnerable was reviewed to identify vulnerable people or groups in the Project Area, whereby 'vulnerable groups' refers to:
- “people who, by virtue of gender identity, sexual orientation, religion, ethnicity, indigenous status, age, disability, economic disadvantage or social status may be more adversely affected by project impacts than others and who may be limited in their ability to claim or take advantage of project benefits. Vulnerable individuals and/or groups may also include, but not be limited to, people living below the poverty line, the landless, the elderly, women and children-headed households, refugees, internally displaced people, ethnic minorities, natural resource dependent communities or other displaced persons who may not be protected through national legislation and/or international law.”*
- 6.2.6 Vulnerable groups or individuals in the study area have been defined as those who have a physical or mental disability; children living in harsh conditions; the elderly; individuals requiring care; orphan children; single parents with four or more children; and the homeless. Herders as a group are not considered vulnerable in the context of the Project, however, individual herder households may be considered vulnerable if they meet the above criteria. This aligns with the results of the household surveys, which identified that of the 10 households interviewed, two had vulnerable persons, all being elderly people; and one household was a single-parent household.
- 6.2.7 Vulnerable groups or individuals in the study area have been defined as:
- The elderly
 - People with disabilities
 - Orphans/half-orphans
 - Single headed households
 - Households with four and more children under 18
- 6.2.8 A stakeholder list has been prepared and is provided in **Table 6-1**. These categories are not exclusive. One individual or group can belong to several categories. It is expected that other stakeholders may be identified during future Project phases and as such, this list will be updated as required and will be reviewed regularly and updated throughout the Project cycle. The risk associated with each stakeholder group can also be subject to change and therefore will also be reassessed periodically. At a minimum, the stakeholder list will be revised prior to the start of the construction and operation phases.

Table 6-1 Identified Stakeholders, Impacts, Interests and Influence

Stakeholder category	Stakeholder sub-category	Impact / Interest / Influence
Directly Affected Parties		
Land owners, title holders or land users affected by land requirements	Herder camps within the OHTL RoW.	Impact Loss of land or access to land, temporary or permanent – currently, no herder household camps are within the RoW.
	Mining concessions within the Project area of influence.	Impact Project will require access to land held within two exploration licence areas and one mining licence area (Tsagaan Suvarga mine) for the RoW, during construction, and for emergency repairs and general maintenance during operation. The mining business may be economically displaced (temporarily or permanently) by the Project.
	Livestock herders.	Impact May experience temporary loss of access to pasture land. May experience dust and nuisance impacts from the Project. Risk of herder/livestock and vehicle accidents during construction.
Asset owners affected by land requirements	Herder households with structures (gers, buildings, wells) within the RoW.	Impact Asset owners whose assets are temporarily or permanently affected as a result of the Project within the RoW. Currently, no assets are within the RoW or construction working area and therefore no relocation is considered necessary.
	Utility and service operators: - Railway owner crossed by the Project. - Other OHTL owners (NPTG) crossed by the Project.	Impact There may be some temporary or permanent impacts related to the need for the Project to cross other utilities and infrastructure.
Project Proponent and Core Operations	Employees	Interest Interested in providing goods and services to the Project. Impact
	Contractors, Suppliers, and Service Providers	Employment, economic impacts, including on incomes, occupational and health, safety and security, procurement and supply chain requirements.
Utilities	Water Electricity	Impact: Demand for water, electricity during construction. Influence: Permits for works/supplies.

Stakeholder category	Stakeholder sub-category	Impact / Interest / Influence
Indirectly Affected Parties		
Herder households	Herder camps in a 2km buffer zone of the OHTL (i.e. 1km either side of the centre line).	<p>Gers close to or near the OHTL RoW may be impacted through restrictions to access. Access to other assets and pastureland may be restricted during construction.</p> <p>May experience potential impacts related to environmental quality (disturbances and dust caused by the Project's traffic and construction works).</p> <p>Influx of construction workers.</p>
Local communities	Soum / bagh residents. Tsagaan Suvarga mine workers.	<p>Impact</p> <p>May experience potential impacts related to environmental quality, disturbance to cultural practice and heritage (tangible and intangible), community health, safety and security during construction and operation.</p> <p>Influx of construction workers.</p>
Local businesses	Local business owners within the Project area of influence	<p>Impact</p> <p>Project may provide opportunities for increased revenue from construction and operation workforce.</p> <p>Provision of improved electricity supply.</p>
Vulnerable groups	Vulnerable individuals and groups	<p>Impact</p> <p>May be disproportionately affected by the Project, for example may experience adverse health impacts more acutely than other stakeholders.</p>
National Government	Government of Mongolia	<p>Interest</p> <p>Regional economic development, infrastructure development, permitting and monitoring, protection of employees and public safety.</p> <p>Influence</p> <p>Potential to influence Project approvals and timeframes.</p>
	Ministries and Departments / Regulators	<p>Interest</p> <p>Main source of information for local governments about the project.</p> <p>Influence</p> <p>Power to regulate or influence the Project in terms of establishing policy, granting permits or other approvals or guidance for the Project, and monitoring and enforcing compliance with national Law throughout the project lifecycle.</p>
Aimag Level	Governor	

Stakeholder category	Stakeholder sub-category	Impact / Interest / Influence
Government and self-governing body (Dornogovi)	<i>Khural</i> Speaker	Interest
	<i>Khural</i> Members	Regional economic development, taxes, infrastructure development. Specific concerns of the electorate. Personal political agendas. Influence Potential to influence Project in terms of the granting permits or other approvals, monitoring and enforcing compliance with national Law through Project life cycle.
	<i>Aimag</i> Administration Departments (Planning, Environment, Inspection, Land)	Interest Regional economic development, infrastructure development, permitting and monitoring, protection of employee and public safety. Influence Potential to influence Project approvals and timeframes.
<i>Soum</i> and <i>Bagh</i> -Level Government and self-governing body	<i>Soum</i> Governor, <i>Khural</i> Speaker and elected <i>Khural</i> Members, <i>soum</i> administration <i>Bagh</i> Governor	Interest Local economic development, infrastructure development, permitting and monitoring, protection of employee and public safety. Influence Potential to influence Project approvals and timeframes.
Non-Governmental Organisations (NGOs) and Community-Based Organisations (CBOs)	Regional and National NGOs and CBOs	Interest NGOs with environmental and social concerns Influence Lobbying and advocacy
Project beneficiary	MoE NPTG	Influence: Responsible for the identification and Project implementation, including contractor management.
Financial Institutions	EBRD	Influence: Interest and influence in minimising risk to their investment by ensuring the Project's ongoing compliance with environmental and social performance requirements, tied to financial disbursements.
Local services	Health centre Police Fire	Interest:

Stakeholder category	Stakeholder sub-category	Impact / Interest / Influence
		Interests include safety - high occurrence of traffic accidents. Availability of health facilities for the construction and operation phases.
Media	Social media channels (LinkedIn, Facebook and Twitter)	<p>Interest</p> <p>Platform for stakeholders to express their interest in the Project, including in relation to impacts. These media are also tools that can be used by the Project to interact with stakeholders on various topics.</p> <p>Influence</p> <p>Potential to influence public opinion based on content.</p>
Industrial Sector Bodies	Construction and infrastructure trade bodies Trade Unions	<p>Impact:</p> <p>Potential impacts on their operations (including cumulative).</p> <p>Interest:</p> <p>Business opportunities.</p>

6.3 Methods of Communication

- 6.3.1 Building upon the engagement methods utilised to date, and feedback gathered through previous consultation activities, different consultation approaches and methods have and will be employed, as outlined in **Table 6-2**.

Table 6-2 Methods of Communication

Method	Description
Public Meetings	Public meetings typically involve a range of activities such as slideshow presentations, poster displays, a question-and-answer period or roundtable discussions and dissemination of printed materials. Questionnaires may also be provided to attendees. The intention of public meetings is to facilitate opportunities for dialogue and a meaningful two-way exchange of information with local communities and interested parties.
Bagh meetings	Using existing fora for updates on the Project at the village level
Focus Group Discussions (FGD)	Small group meetings or FGDs will continue to be used in future engagement for specific groups e.g., women, vulnerable groups.
Information boards	Information boards will provide the public access to leaflets and information materials. They will allow the public to obtain information the Project, as well as to lodge complaints or concerns. These may be established in each affected soum (at community centres / Government offices).
Key Informant Interviews (KII)	KIIs will continue to be conducted to obtain detailed understanding / information from people with first-hand/specialised knowledge of particular issues, or interest in an issue. KIIs resemble

Method	Description
	a conversation among acquaintances and also provide the opportunity to verify data collected in FGDs.
Targeted meetings and outreach	Will be used with individual project affected persons and any displaced persons to discuss individual issues.
Formal Correspondence	Formal written correspondence will continue to be used for communications with Mongolian authorities and other stakeholders.
Awareness Materials	Road construction/operation awareness materials in appropriate and targeted formats will be used to create awareness and inform communities of project activities and plans (including safety). These types of materials include posters and/or brochures.
Grievance Mechanism	A Grievance Mechanism will be developed to foster the effective resolution of grievances and community concerns. The Grievance Mechanism is central component of the Project's stakeholder engagement toolkit for the life cycle of the project.
Local Media, Radio, and Newspaper Articles	The Project may use media such as TV, radio, Facebook and newspaper to disseminate information and create awareness.
Construction site signage	Construction site signage of key Project information (safety awareness, dates, etc.).

6.3.2 General principles to be followed during engagement include:

- Effective and inclusive engagement with project stakeholders;
- All affected people and vulnerable groups within the Project Area will be consulted regularly throughout the project lifetime, using targeted meetings and outreach as necessary;
- Advance warning will be provided to local communities regarding construction activities and schedule; including aimag level activities and timings; and
- FGDs will be conducted with vulnerable people to ensure that their needs and concerns are addressed in relation to Project impacts, in a gender-sensitive manner.

6.4 Stakeholder Engagement Summary

6.4.1 As part of the ESIA for the Project, the following stakeholder engagement activities have been undertaken:

- **ESIA Scoping Engagement (May-June 2025)** - limited to meetings with the PIU engineer, an expert of design company, focusing on initial project introductions and clarifications questions and information requests and the NPTG.
- **ESIA Baseline / Impact Engagement (23-28 June)** - to introduce the Project and to gather further data and feedback on the Project-affected communities and businesses within the Aol and the potential impact of the Project on their livelihoods. Engagement included meetings with MAK, the railway company, Ministry of Industry and Mineral Resources and the MRPAM in Ulaanbaatar, and FGDs, KIIs and Household surveys in the Project Area.

6.4.2 These are reported in more detail in the stand-alone SEP.

6.5 Summary of Stakeholder Comments

6.5.1 **Table 6-2** provides a summary of the views and opinions expressed by stakeholders through the above events. A full transcript is provided in the stand-alone SEP.

Table 6-3 Summary of Stakeholder Comments and Opinions

Topic	Comments
Information and cooperation with local government	<ul style="list-style-type: none"> Most people interviewed mentioned that they have not received formal information yet about Project. It is advisable to share information about project with the main stakeholders such as the Railway and particularly with soum administration for collaboration and agreement. KIIs highlighted importance of information dissemination through Bagh citizen's meeting which are held on quarterly basis. Soum/bagh governors would like to have proper and detailed information in advance and then to present it to the citizens and herders together with Project implementing body. With information herders would not be against the Project.
Construction and Infrastructure	<ul style="list-style-type: none"> Most of the locals see Energy as an Infrastructure. There is hope for improvement as electricity supply is weak in soums. No major negative impacts expressed by locals. However, locals see construction should follow standards and regulations. It is necessary to reflect on the maintenance and repair of the operation.
Land use and access to land/pastureland	<ul style="list-style-type: none"> Grazing areas along roads may be destroyed during construction. Concerns exist over pasture degradation. There are cases that livestock and herders with motorcycle fall into Holl/outages. It is important to ensure the protection of livestock and citizens.
Environmental issues	<ul style="list-style-type: none"> Dust and noise. Death of birds. Waste during construction work. Make it clear whether the impact measures include environmental protection costs and measures.
Cultural Heritage and Palaeontology	<ul style="list-style-type: none"> If the project follows existing infrastructure routes, it is unlikely to encounter cultural or paleontological sites. The power line crosses a special protection zone. This needs to be coordinated with the aimag.
Community health and education	<ul style="list-style-type: none"> School, health service delivery quality will increase by preventing from unexpected power cut and having quality of electricity. Better power supply would reduce operational cost for medical services; allocate budget more effectively; no need to purchase backup generators. However, incoming workers always increase soum hospital workload and pressure. Workers should have health insurance and basic preventive health screenings. To avoid increasing the workload on existing soum doctors, it is better to have an on-site physician who can provide primary care and basic treatment services depending on number of workers. Labour safety standards must be observed and implemented consistently.
Community security	<ul style="list-style-type: none"> Security of herders might be affected during construction. For example, livestock theft and stealing from winter and spring camp. Unknown workers will be coming into community to work. Individuals with prior convictions should provide a reference from police. It is advisable to share information about staff working with the police for collaboration.
Benefits	<ul style="list-style-type: none"> Electricity is an infrastructure, it is a basic need. Quality of life will improve with energy supply.

Topic	Comments
	<ul style="list-style-type: none"> • Local business diversity. • School and health service delivery quality will improve;

6.6 Future Engagement

6.6.1 The future Stakeholder Engagement Programme will comprise several phases as follows:

- ESIA Disclosure and Consultation Phase;
- Pre-construction Phase;
- Construction Phase; and
- O&M Phase.

6.6.2 **Table 6-2** provides a summary of the proposed consultation methods and frequency of consultation for the above phases of engagement.

Table 6-4 Stakeholder Engagement Programme

Stakeholders	Engagement Method	Information to be Disclosed / Activity	Responsible Party	Schedule of Implementation
ESIA Disclosure				
All stakeholders	EBRD website Hard copies in MoE, NPTG and EBRD offices in Ulaanbaatar NTS in local aimag/soum Citizen's Halls Local Media, Radio and Newspaper Articles Bagh meetings Public consultation Khural meetings	Disclosure of EBRD documents: ESIA, NTS, SEP, ESMP, LARF and ESAP.	EBRD / MoE	Upon completion of the ESIA Disclosure Package.
All stakeholders	Public consultation Khural/Bagh/soum meetings	Gain feedback on ESIA Disclosure documents.	EBRD ESIA Consultants	During disclosure of the ESIA.
All stakeholders	EBRD and MoE/NPTG websites Updated NTS provided at the bagh and soum levels	Disclosure of final, updated ESIA Disclosure documents.	EBRD / MoE / NPTG	Following the disclosure period.
Pre-construction Phase				
Contractors	Tender documents	Contract information / Calls for Tender timing	MoE / PIU	During planning stage
EBRD	Formal meetings / correspondence	Formal correspondence in relation to ESAP compliance	MoE / PIU	As required.
Local communities and businesses	Public meeting prior to the start of construction to include community health and safety awareness raising	General pre-construction planning and site preparation prior to construction, including location of any	MoE / PIU / Construction Contractor	Prior to construction

Stakeholders	Engagement Method	Information to be Disclosed / Activity	Responsible Party	Schedule of Implementation
	<p>presentation</p> <p>FGDs for vulnerable and high-risk people to discuss community health and safety issues</p> <p>Awareness materials</p> <p>Information boards and road signs in local settlements</p> <p>Local Media, Radio and Newspaper Articles</p> <p>Grievance mechanism</p>	<p>construction camps</p> <p>Overall schedule of site preparation and construction, including sub-activities, key stages and potential stages of stakeholder interest</p> <p>Information on safety measures, access and traffic management during construction</p> <p>Targeted safety measures for vulnerable and high-risk groups</p> <p>Collect opinions and concerns</p> <p>Disclosure Community grievance mechanism</p>		
Potentially Displaced Persons / land owners	Targeted consultation and surveys to identify potentially displaced persons (see LARF) if applicable and, where necessary (depending on final design), agreement on compensation.	<p>Economic and physical displacement procedures and compensation agreements</p> <p>Timing of works</p> <p>Community Grievance mechanism</p>	MoE / PIU	Prior to construction
Affected utilities / services	KII with the affected parties such as the local railway crossed by the OHTL.	<p>Economic and physical displacement procedures and compensation agreements</p> <p>Timing of works</p> <p>Community Grievance mechanism</p>	MoE / PIU	Prior to construction
Khurals (CRK) (aimag and soum) Government Agencies	<p>Attendance at formal Bagh meetings</p> <p>Targeted meetings, as requested</p> <p>Awareness materials</p>	<p>Approvals and permits</p> <p>General pre-construction planning and site preparation prior to construction, including location of construction camps and use of quarries/borrow pits</p> <p>Overall schedule of site preparation and construction, including sub-activities, key stages and potential stages of stakeholder interest, access requirements / constraints</p>	MoE / PIU / Construction Contractor	Prior to construction

Stakeholders	Engagement Method	Information to be Disclosed / Activity	Responsible Party	Schedule of Implementation
		Discuss any grievances		
Vulnerable groups	Targeted meetings and FGDs with identified vulnerable groups in each area prior to construction Provision of information materials Grievance mechanism	Specific consultation, including information on project components, in particular the use of a construction workforce, safety issues / management, and also potential employment opportunities, including skills required and training opportunities, traffic management.	MoE / PIU / Construction Contractor	Prior to construction
Livestock herders	Targeted meetings and FGDs with identified vulnerable herder households prior to construction Provision of information materials Grievance mechanism	Specific consultation, including information on project components, in particular the use of a construction workforce, safety issues / management, and also potential employment opportunities, including skills required and training opportunities, traffic management and access routes	MoE / PIU / Construction Contractor	Prior to construction
Affected people Vulnerable groups Businesses / suppliers Industrial sector bodies General public	Notices on information boards, shops, local offices etc. in local settlements Publication via local Khurals (aimag and soum) Awareness materials Local media / newspapers / radio	Upcoming construction phase employment opportunities, application processes Project construction information (dates/ schedule, safety notifications, activities)	Construction Contractor	Prior to construction
Traffic police	Targeted meetings Official Email/Written Letter	Road safety	Construction Contractor	Prior to construction
Health centres Police Fire brigade	Targeted meetings Official Email/Written Letter	Development of Emergency Preparedness and Response Plan – availability of local resources for emergencies	Construction Contractor	Prior to construction
Utilities	Targeted meetings as required	Utilities planning Grievance mechanism	Construction Contractor	Prior to construction

Stakeholders	Engagement Method	Information to be Disclosed / Activity	Responsible Party	Schedule of Implementation
	Formal correspondence			
NGOs and CSOs – national and local	Formal correspondence / meetings Awareness materials Grievance mechanism	Provision of project information and awareness materials Discussions on specific matters	Construction Contractor	Prior to construction
All stakeholders	Local media / newspapers Facebook Grievance mechanism	Key Project construction information (dates/schedule, safety notifications, activities)	Construction Contractor	Immediately prior to construction at any one site
Construction Phase				
All stakeholders	Contractor website Notices on information boards, shops, local offices in district / soum centres Awareness materials Local media / newspapers / radio / Facebook	Ongoing and upcoming employment opportunities, application processes	Construction Contractor	Ongoing as required
Local communities	Notices on information boards, in shops, local offices etc in local settlements Bagh meetings Awareness materials delivered to local businesses / residents through leaflets, newsletter Local media, radio, newspapers, Facebook Grievance mechanism	Inform on project implementation schedule / progress Construction activities Consult the local communities about their views / opinion on project implementation and impacts Ensure awareness / availability of grievance mechanism	Construction Contractor	Monthly / as required (due to updates in e.g. programme) Annually
Vulnerable groups	FGDs/KIIs Newsletters	Inform on project implementation schedule / progress Provide information on employment and applications	Construction Contractor	FGDs/KIIs – at least twice during construction works or at a frequency agreed with local soum

Stakeholders	Engagement Method	Information to be Disclosed / Activity	Responsible Party	Schedule of Implementation
	Grievance mechanism	Regular engagement and notification of activities on and around site with community health and safety impacts (where applicable) Consult the local communities about their views/opinion on project implementation and impacts Ensure awareness / availability of grievance mechanism and code of conduct		/ bagh or directly with relevant persons/ groups Other items - monthly / as required Bi-annual updates
Potentially Displaced Persons	One-to-one meetings	Inform on project implementation schedule / progress On-going engagement related to any issues of compensation measures and grievances	MoE / PIU	As required
Employees	Training e.g. Code of Conduct Information boards at construction camps and work sites Meetings in any construction camps Awareness materials Labour grievance mechanism	Code of Conduct Inform of Project policy / plans in relation to stakeholder engagement and communities Inform on external grievance mechanism Inform on internal HR grievance mechanism Labour grievances	Construction Contractor	Induction of employees, prior to work on site of individual Regularly during construction
National Government Agencies	Formal correspondence / meetings Media, newspapers, radio, Facebook Awareness materials Grievance mechanism	Provision of project information and awareness materials Meetings on specific matters	MoE / PIU	Ad hoc / As required
Khurals (aimag and soum) Aimag and soum level agencies	Notices on information boards, shops, local offices etc. in all local settlements Awareness materials Local media / newspapers / radio / Facebook	Ongoing and upcoming employment opportunities, application processes Inform on Project progress / provide detailed information	Construction Contractor	Bi-annual; and as required

Stakeholders	Engagement Method	Information to be Disclosed / Activity	Responsible Party	Schedule of Implementation
		Regular engagement and notification of activities on and around site with community health and safety impacts (where applicable)		
Press and media Media	Formal correspondence / meetings Local media, newspapers, radio, Facebook Awareness materials Grievance mechanism	Provision of project information and awareness materials Meetings on specific matters	MoE / PIU / Construction Contractor	Ad hoc / As required
NGOs Community groups	Formal correspondence / meetings Local media, newspapers, radio, Facebook Awareness materials Grievance mechanism	Provision of project information and awareness materials Meetings on specific matters	MoE / PIU / Construction Contractor	Ad hoc / As required
EBRD	Formal meetings / correspondence	Formal correspondence in relation to ESAP compliance	MoE / PIU	As agreed
Local schools	Leaflets Advertisements School visits	Disclose information to schools and communities on the risks associated with construction safety	Construction Contractor	Prior to operation
Health centres Police Fire brigade	Targeted meetings	Communicate Emergency Preparedness and Response Plan and availability of services locally	Construction Contractors	As agreed
Operation and Maintenance Phase				

Stakeholders	Engagement Method	Information to be Disclosed / Activity	Responsible Party	Schedule of Implementation
Employees	Smaller group training sessions Online training (depending on skills set) Labour grievance mechanism	Code of Conduct Inform on internal HR grievance mechanism	NPTG	Regularly during operation
All stakeholders	Advertisements within regional employment publications Information boards	Information on employment opportunities and skills required / sub-contracting opportunities during operation	NPTG	During operation, as required
All stakeholders	Local media / newspapers / radio	Disseminate information about emergency procedures, electrical safety	NPTG	End of construction / beginning of operation
EBRD	Formal meetings / correspondence	Formal correspondence in relation to ESAP compliance	NPTG	As required.
Health centres Police Fire brigade	Targeted meetings	Communicate Emergency Preparedness and Response Plan and availability of services locally	NPTG	Regular basis, as agreed with organisations
Potentially displaced persons	Formal correspondence / meetings Awareness materials Grievance mechanism	Discussions on specific matters / feedback on ongoing community issues.	NPTG	End of construction / beginning of operation

- 6.6.3 As part of the current ESIA work to meet EBRD requirements, a Project ESIA Disclosure Package will be disclosed in early 2026 for a period of 120 days. The Project ESIA Disclosure Package consists of documents developed to meet the requirements of EBRD ESP 2019, as follows:
- ESIA Report;
 - Non-Technical Summary (NTS);
 - This SEP;
 - Environmental and Social Management Plan (ESMP);
 - Land Acquisition and Resettlement Framework (LARF); and
 - Environmental and Social Action Plan (ESAP).
- 6.6.4 The purpose of the disclosure will be to ensure that stakeholders and affected parties have the opportunity to comment on and input further into the assessment of environmental and social impacts that may occur and how the Project will avoid, minimise and/or manage these impacts; and feedback any concerns to the Project Team.
- 6.6.5 The ESIA Disclosure Package will be available both in English and in Mongolian via the EBRD website (www.ebrd.com). As this is a Category A project, documents will be available for a minimum consultation period of 120 days.
- 6.6.6 Hard copies of these documents will also be available at the EBRD offices and the MoE offices in Ulaanbaatar, Mongolia. Hard copies of the NTS, SEP and LARF will be shared with the local administrations at the aimag, soum and Bagh level in Project-affected soums and Bagh's for perusal by interested parties.
- 6.6.7 The MoE will also publicly notify how both hard and soft copies of the Project ESIA documentation can be accessed and comments provided, including electronically (via online feedback forms and/or a Project-specific email address) and in comment books.
- 6.6.8 As part of the DEIA for the Project, public consultation must be undertaken to cover the 11 Project baghs, as well all the baghs within Sainshand soum and Mandakh soums. To avoid stakeholder fatigue, the intention is to align the EBRD ESIA Disclosure and DEIA public consultation events. As such, public consultation events will be held at each bagh centre along the OTHL route, at:
- Dalaishand bagh
 - Chandmani bagh
 - Yalalt bagh
 - Ganzam bagh
 - Zuunbayan bagh
 - Khairkhan bagh
 - Naran bagh
 - Argalant bagh
 - Ulaanshoroot bagh
 - Servenbayankhoshuu bagh
 - Alagteeg bagh

- 6.6.9 Citizens' Representative Meetings will be held in Sainshand and Mandakh soums, in accordance with DEIA public consultation requirements.
- 6.6.10 In addition, an event will be held in Sainshand city to cover the remaining baghs within the Project soums that are not crossed by the route, however, are required to be engaged under national legislation.
- 6.6.11 Specific outreach will also take place with the herder households along the proposed route; and engagement will be undertaken with representatives of infrastructure along the route (railway lines, exploration and mining license holders and holders of land possession rights)
- 6.6.12 Within one month of the 120 day disclosure period, a Public Consultation Summary Report (PCR) will be prepared and disclosed. Where necessary, an updated ESIA Report and associated documents will also be prepared and issued on the EBRD website; and an updated NTS provided at the aimag and soum level.
- 6.6.13 During the construction stage, the MoE, the PIU and the Construction Contractor will disclose relevant information about the Project during the construction stage. The NPTG will be required to continue disclosure in an ongoing manner as the Project evolves.

6.7 Grievance Mechanism

- 6.7.1 A formal community *Grievance Mechanism* will be implemented to ensure that relevant parties (MoE/PIU/Construction Contractor) are responsive to any concerns and complaints, particularly from affected people and communities; and to ensure that there is a central approach and record of grievances. A grievance mechanism is set out in **Chapter 7 of the stand-alone SEP**.
- 6.7.2 For this Project, the following is proposed:
- A project-specific grievance channel will be set up on the MoE website and managed by the MoE PIU.
 - The Construction Contractor will set up a grievance mechanism during construction. The local community will be able to log grievances directly with the Construction Contractor before the grievance is escalated, if applicable, to a judicial or other national process.
 - The Construction Contractor will inform the PIU of any grievances, who will in turn inform the MoE.
 - Where necessary, the Construction Contractor and the Ministry of Energy/Project Implementation will ensure the local government/officials are involved.
 - The PIU will be responsible for ensuring that the local government/officials are involved, where applicable and where necessary, a joint team can be set up to investigate the grievance.
 - During O&M, grievances will be addressed by the NPTG and their existing website.
- 6.7.3 All grievances will be:
- Acknowledged within 5 working days of receipt, by the entity receiving the grievance;
 - The Construction Contractor will inform the PIU within 24 hours;

- The PIU will advise the MoE within 2 days;
- The MoE/PIU or Construction Contractor (as agreed between parties as relevant to the grievance) will respond within no later than 10 working days of the Complaint Date; and
- Unless otherwise agreed with the affected party, the Ministry of Energy/Project Implementation/Construction Contractor will respond within no later than 10 working days of the Complaint Date.
- The MoE/PIU or Construction Contractor (as relevant) will implement the solution within 7 working days of redress solution being agreed; or, where longer is required, within a timeframe agreed together with the aggrieved person.

6.7.4 Special attention will be paid to the training of designated staff involved in the management of the Grievance Mechanism. During construction, specifically, nominated and trained members of the Construction Contractor staff will record grievance information in a grievance database and share this with the PIU. This will include:

- Stakeholder name and contact details (unless anonymity is requested); and
- Details of the grievance and how and when it was submitted, acknowledged, responded to and closed out.

6.7.5 The above Grievance Mechanism covers non-employees (i.e. affected people and other relevant stakeholders such as local communities). A separate internal labour grievance procedure for Project employees/workers will be provided.

6.8 Reporting

6.8.1 As identified above, a Public Consultation Summary Report (PCR) will be prepared and disclosed following the ESIA Disclosure period.

6.8.2 During construction, all feedback from stakeholder engagement activities will be documented and reported, covering the following:

- Weekly / Monthly Reports – the Construction Contractor will prepare weekly and monthly reports to be submitted to the MoE/PIU. The MoE/PIU will review this information and prepare monthly summary reports of all stakeholder engagement and grievances.
- Bi-annual and Annual Reports - The MoE/PIU will compile a report summarising stakeholder engagement and grievance management results on a bi-annual and annual basis during construction. This report will provide a summary of all public consultation and engagement, grievances, resolution and outcomes. These reports will be made available to the public on request.

6.8.3 During operation, consultation and grievances will be recorded and reported by the NPTG. An annual report will be prepared to provide a summary of all public consultation and engagement, grievances, resolution and outcomes.

6.8.4 Further details are provided in the stand-alone SEP, including key performance indicators and monitoring activities (section 8 of the SEP). The SEP itself will be updated by the PIU prior to the start

of construction and shared with the Construction Contractor. The Construction Contractor will prepare a Construction SEP (CSEP), which will be reviewed during construction at a minimum of every six months, or at a frequency agreed with EBRD and the MoE/PIU. During steady state operations, the CSEP will be reviewed on a bi-annual basis and any necessary revisions made to reflect the changing circumstances or operational needs of the Project. The CSEP may also be updated on an “as required” basis in response to changes in planned works, etc. Finally, the SEP will be updated prior to operation so it reflects the O&M stage of works by the NPTG.