

# Non-Technical Summary (NTS)

**150 MW / 300 MWh Celest BESS Project in  
Uzbekistan**



**REV-4**

**November 2025**

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## ABBREVIATIONS AND ACRONYMS

<b>Acronym</b>	<b>Definition</b>
<b>AC</b>	Alternating current
<b>BESS</b>	Battery Energy Storage System
<b>BSSA</b>	Battery Storage Service Agreement
<b>CLO</b>	Community Liaison Officer
<b>COD</b>	Commercial Operation Date
<b>DC</b>	Direct Current
<b>EBRD</b>	European Bank for Reconstruction and Development
<b>EIA</b>	Environmental Impact Assessment
<b>EMS</b>	Energy Management System
<b>EPC</b>	Engineering, Procurement and Construction
<b>ESIA</b>	Environmental and Social Impact Assessment
<b>ESMP</b>	Environmental and Social Management Plan
<b>ESR</b>	Environmental and Social Requirement
<b>E&amp;S</b>	Environmental and Social
<b>FGD</b>	Focus Group Discussion
<b>GBVH</b>	Gender Based Violence and Harassment
<b>IFI</b>	International Financing Institutions
<b>ILO</b>	International Labor Organization
<b>KPI</b>	Key Performance Indicator
<b>LRP</b>	Livelihood Restoration Plan
<b>MW</b>	Megawatt
<b>MWh</b>	Megawatt per hour
<b>NEGU</b>	National Electric Grid of Uzbekistan
<b>NGO</b>	Non-governmental Organization
<b>NTS</b>	Non-Technical Summary
<b>OEM</b>	Original Equipment Manufacturer
<b>OHTL</b>	Overhead Transmission Lines
<b>OVOS</b>	Otsenka Vliyaniya na Okruzhayushchuyu Sredu
<b>PCS</b>	Power Conversion System
<b>PS</b>	Performance Standards
<b>SEP</b>	Stakeholder Engagement Plan
<b>SIZ</b>	Small Industrial Zone
<b>SPV</b>	Special Purpose Vehicle
<b>TBT</b>	Toolbox Talk
<b>TLB</b>	Tractor-Loader-Backhoes
<b>WBG</b>	World Bank Group

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## 1. INTRODUCTION

In recent years, Uzbekistan has faced a severe energy crisis and is going through a power system collapse – particularly during winter. The crisis has resulted in severe power outages with nation-wide blackouts<sup>1</sup>.

Acknowledging the severity of the situation, the Government of Uzbekistan has taken ambitious measures to alleviate the energy crisis. One of the first priorities was to reduce reliance and dependency on natural gas for electricity generation and promote renewable energy sources such as solar and wind power.

These national efforts to expand renewable energy make the role of Battery Energy Storage Systems (BESS) increasingly important. BESS mainly help store energy and support the electricity grid, which is essential for using more renewable energy. By shifting energy to periods of high demand, they help reduce blackouts.

AMEA Power executed an Investment Agreement with the Republic of Uzbekistan) to a develop a 300 MWh Battery Energy Storage System (BESS) Project to be located in Tashkent City within Uzbekistan (hereafter referred to as the '**Project**'). AMEA Power (hereafter referred to as the '**Developer**') established a Special Purpose Vehicle (SPV) known as Celest that is wholly owned by AMEA Power and that will be responsible for development of this project (hereafter referred to as the '**Project Company**' or '**Celest**').

## 2. THIS DOCUMENT, THE NON-TECHNICAL SUMMARY (NTS), PROVIDES A SUMMARY IN NON-TECHNICAL LANGUAGE OF THE FINDINGS PRESENTED IN THE ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA) REPORT. THE ESIA REPORT CONTAINS DETAILED INFORMATION ON THE PROJECT AND THE ENVIRONMENTAL AND SOCIAL CONSIDERATIONS INVOLVED (SEE "SECTION ENVIRONMENTAL AND SOCIAL ACTION PLAN

An Environmental and Social Action Plan (ESAP) has also been developed for the Celest BESS Project. The ESAP provides the Project Company with more actions in order to meet EBRD's Environmental and Social Policy and additional international best practices. Key actions include the preparation of annual environmental and social reports, implementation of cybersecurity protocols, and establishment of exclusion zones to protect nearby irrigation canals. Waste management is a major focus, with requirements for segregation, safe disposal of hazardous materials like asbestos-containing materials currently on site. The plan also mandates the development of a decommissioning strategy that prioritises recycling and safe handling of battery components and associated equipment.

Potential health, safety, and community well-being improvements are also provided through lone working assessments, traffic and transport safety measures, and fire safety capacity building. The ESAP also requires clarity on sanitary zone regulations, confirmation of transmission line safety, and certification for emergency systems. Cultural heritage protection is also ensured through archaeological surveys and engagement with national authorities. Overall, the ESAP emphasizes proactive risk management, regulatory compliance, and sustainable practices throughout the project lifecycle.

Further Information and Contact Details" for information on ESIA Report disclosure). It includes a description of the Project's purpose, an assessment of potential environmental and social impacts, and any necessary mitigation measures for significant adverse effects. Additionally, the report includes an Environmental and Social Management Plan (ESMP), outlining monitoring and mitigation measures,

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<sup>1</sup> [Executive summary – Uzbekistan 2022 – Analysis - IEA](#)

responsibilities, and legal requirements for the Project's duration, all of which the Developer is committed to implementing.

**3. A STAKEHOLDER ENGAGEMENT PLAN (SEP) HAS ALSO BEEN DEVELOPED, DETAILING THE PLANNED STAKEHOLDER CONSULTATION ACTIVITIES AND ENGAGEMENT PROCESS, AS WELL AS A GRIEVANCE MECHANISM TO ADDRESS COMPLAINTS FROM AFFECTED STAKEHOLDERS (REFER TO “SECTION ENVIRONMENTAL AND SOCIAL ACTION PLAN**

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**4. PROJECT DESCRIPTION**

This section provides a detailed description of the Project in relation to its location, the key Project components, and an overview of the proposed activities.

**4.1 Administrative Setup and Project Location**

Administratively, Uzbekistan is divided into 12 Regions (also known as *viloyatlar*), 1 sovereign republic (known as the Sovereign Republic of Karakalpakstan), and 1 independent city (Tashkent City which is the capital of Uzbekistan).

Project site is located in Tashkent City, adjacent to the Eastern border of Tashkent Region. Tashkent City is the capital of Uzbekistan and serves as a separate administrative unit from Tashkent Region.

Tashkent City is divided into multiple districts (*Rayons*), each governed by its own *District Khokimiyat (represented by a District Hokim or Governor)*, which is responsible for local administration, the implementation of state programs, and delivery of public services. Figure 1 **Ошибка! Источник ссылки не найден.** below presents the location of the Project site within Tashkent City Districts.

Table 1: District Divisions of Tashkent City

Division	Legend	Division	Legend
Sirg'ali	1	Shayxontoxur	7
Bektemir	2	Chilonzor	8
<b>Mirzo Ulug'bek</b>	<b>3</b>	Uchtepa	9
Yashnobod	4	Yunusobod	10
Mirobod	5	Yakkasaroy	11

Olmazor	6	Yangihayot	12
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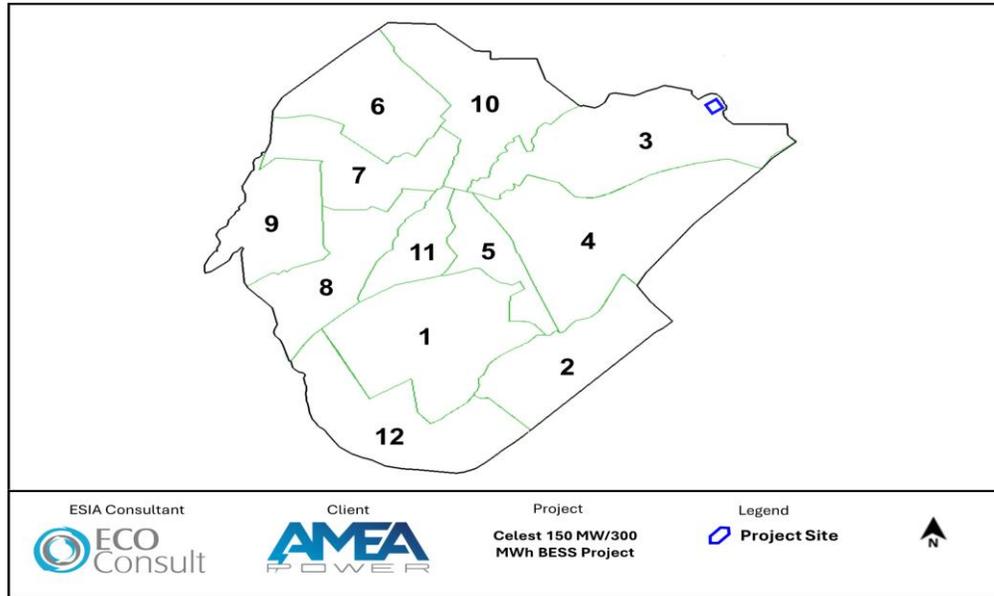


Figure 1: District Divisions in Tashkent City

#### 4.2 Local Communities

Mahallas represent the lowest level of administrative and social organization in Uzbekistan and play a vital role in local governance, community cohesion, and service delivery. Each Mahalla has a Mahalla Committee, led by a Mahalla Chairman (*Rais*).

Administratively, the BESS site is located within Beshkapa Mahalla, an industrial neighborhood, while the transmission route falls within Paskiyuz Mahalla. Both mahallas are under the jurisdiction of Mirzo Ulug’bek District in Tashkent City as discussed earlier.

Throughout the ESIA report, the term ‘local communities’ will refer specifically to the following settlements and inhabited areas within the listed Mahallas. This has been agreed in consultation with Mirzo Ulug’bek District Khokim.

- Beshkapa Mahalla (where the BESS is located)
- Paskiyuz Mahalla (where the transmission line runs)
- Yuzrobot Mahalla and Geofizika Mahalla

Figure 2 presents the four (4) Mahallas and their boundaries in relation to the Project site.



Figure 2: Project Site and Closest Communities

### 4.3 Project Components

#### 4.3.1 Outline of BESS Technology

The Project aims to connect a Battery Energy Storage System (BESS) with a capacity of 150 MW to the national electricity grid. The BESS will help make the grid more stable and support the use of renewable energy. It works by storing extra electricity when supply is high, such as when solar or wind energy is being produced, and releasing it back to the grid when electricity demand is higher than supply.

The system can release energy at full power for up to two hours and at reduced power for up to six more hours, giving a total of up to eight hours of electricity depending on the grid’s needs.

#### 4.3.2 Battery Energy Storage Systems (BESS)

The key components of the BESS as per earlier figure are identified and discussed below.

- Power Conversion Station (PCS) which converts electricity and steps up the voltage.
- Lithium-Ion Batteries (BESS) which store the electricity
- Energy Management System (EMS) oversees power flows, monitors the state of charge, and ensures efficient use of stored energy. The system can discharge energy into the grid or absorb excess power when needed.

- Monitoring systems for battery health and auxiliary systems, (e.g. fire protection, smoke protection, gas detection, etc.)

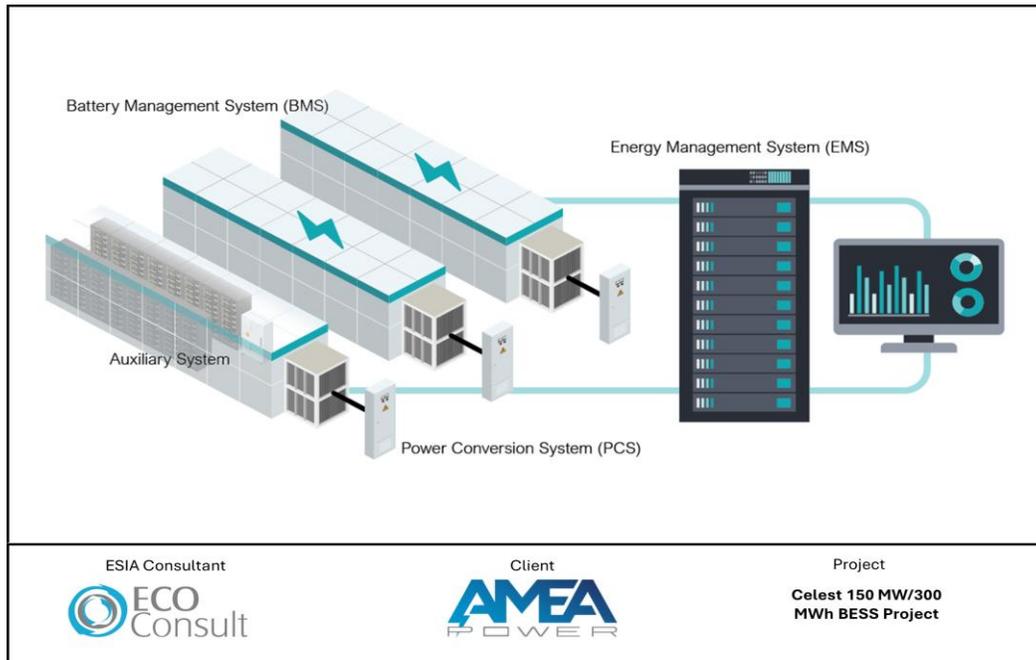


Figure 3: BESS Key Components

#### 4.3.3 Infrastructure and Utilities

The following highlights the key infrastructure and utility elements that will be required for the Project.

- Substation:** A substation will be built within the Project site to manage the output from the BESS facility.
- Grid Connection:** The Project will be connected to the nearby Traktorsoz Electric Substation through a 110 kV underground transmission line. The interconnection works will be undertaken by the EPC Contractor after which it will be handed over to NEGU. Where the line crosses an existing water canal, it will be installed through an underground conduit system, which is a protective pipe buried in the ground to hold the cables.
- Amenities Building:** Utility infrastructure will be provided to meet project needs and comply with applicable standards. The building will include offices and up to three toilets and one shower.
- Access route and internal road:** The Project will be accessed via a single exiting route that connects to the existing road network outside the Project boundary and follows a currently unpaved (basecourse) track. According to available information, this road is expected to be upgraded soon by the local District. The access route will lead to the Project site, where a new internal road will be constructed.
- Water supply:** The EPC Contractor will be responsible for procuring the water which will be transported to the site by truck. The specific source of water will be determined at a later stage.



Figure 4: Celest BESS Project Components and Layout



Figure 5: Water Canal

## 4.4 Overview of Project Activities

### 4.4.1 Planning and Design Phase

This phase will involve the following:

- Completion of all required studies for the Project development. This will include but not limited to ESIA, topography study, geotechnical study, etc.;
- Obtaining and finalizing required financing from IFIs;
- Obtaining required permits;
- Appointment of EPC Contractor and Battery Supplier (Gotion); and
- Preparation of detailed design and layout requirements.

### 4.4.2 Construction Phase

The typical activities that will take place during the construction phase includes the following:

- Mobilization of Project team and equipment to the site and recruitment of workers;
- Mobilization works for temporary facilities (e.g. site offices);
- The BESS components (i.e., containers) will be transported by road to the Project site using hauling trucks. It will be a heavy load but inside a standard shipping container
- Site preparation for the installation of battery container foundations, involving survey works, site clearing, grading, levelling, limited excavation, and cement works;
- Excavation and backfilling activities for foundations and cable trenches;
- Installation of BESS components likely using onsite mobile cranes;
- Construction works to include civil works, electrical works and mechanical works for the development of the substation and building infrastructure, etc.; and
- Decommissioning of temporary facilities.

### 4.4.3 Operation Phase

- BESS projects generally require regular preventative, predictive, and corrective maintenance. For this Project, operation and maintenance of the BESS components will be undertaken by the BESS OEM under a comprehensive Long-Term Service Agreement (LTSA). Operation and maintenance of other components (mainly the substation) will be managed by AMEA Technical Services (ATS).
- Maintenance will also take place through a dedicated team. Although minimal, maintenance activities may include battery system checks, thermal management system servicing, inverter and electrical component inspections, software updates, and safety system testing.

### 4.4.4 Decommissioning Phase

According to the BSSA agreement, the Project is expected to be operational for 15 years. In the case of complete decommissioning of BESS, the battery enclosures and associated equipment will be taken down, disassembled into components, and removed from the site.

#### 4.5 Project Schedule

As stated by the Developer, the Project schedule includes a Planning and Design phase from Q4 2025 to Q1 2026, followed by Construction from Q1 2026 to Q4 2027. The Commercial Operation Date (COD) is expected in Q4 2027. The Project is designed to operate for a period of 15 years following the start of operations.

#### 4.6 Workforce Requirements

The estimated workforce required for the Project during the construction and operation phases is as follows; however, this will be confirmed at a later stage of the Project.

- Around 200 job opportunities, at peak during the construction phase for a duration of approximately 12 months. This will mainly include 80 skilled job opportunities (to include engineers, technicians, consultants, surveyors, etc.) and 120 semi-skilled and unskilled job opportunities (such as laborers, security personnel, housekeeping, etc.).
- Around 15 full-time job opportunities during the operation phase for a duration of 15 years. This will include around 5 skilled job opportunities (such as engineers, technicians, administrative employees, etc.), 5 semi-skilled and 5 unskilled job opportunities (such as security personnel, drivers, etc.).

The Developer is committed to adhering to transparent recruitment procedures which include local community members. In addition, the Developer is aiming to hire local community members to the greatest extent possible where community members have the prerequisite skills and qualities for the job. Recruitment will be undertaken in accordance with Uzbekistan law, on fair assessment of skills and qualities for the job.

#### 4.7 Other Developments in the Area

The Project site is located next to Traktorsoz substation (which it will connect to), which was commissioned in 1985. There is also electrical infrastructure around the Project site, mainly including Overhead Transmission Lines (OHTL) as well as Overhead Distribution Lines (OHDL).

The southern parts of the Project site is surrounded by an industrial area known as “Small Industrial Zone” (SIZ) which consists of commercial entities and small-scale light industries with limited production volumes. This includes enterprises involved in plastic-related production, cardboard box production, warehouses, etc. There are no heavy industrial activity within this area. To the north of the Project site is a residential area.

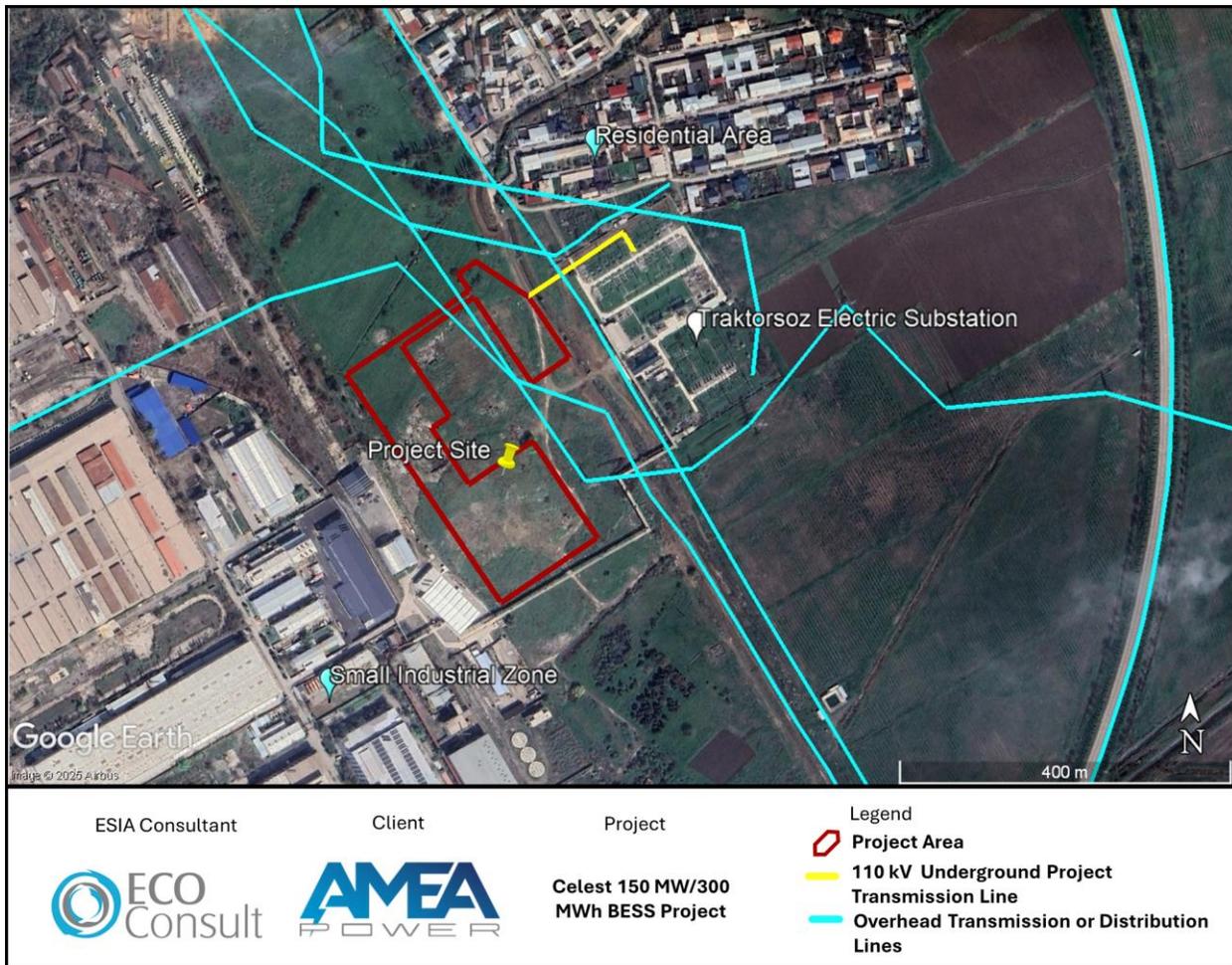


Figure 6: OHTL around the Project Site

## 5. SUMMARY OF ENVIRONMENTAL AND SOCIAL BASELINE CONDITIONS AND IMPACTS

### 5.1 Introduction

The ESIA included comprehensive environmental and social baseline studies, as well as an assessment of potential impacts. Where significant effects were identified, appropriate mitigation measures were developed and incorporated into the ESMP, with the significance of residual effects also evaluated.

The ESIA provided engineers and designers with valuable insights into the sensitivities of baseline environmental and social resources that could be affected by the proposed development. As a result, the design proposal was developed to consider these sensitivities, aiming to avoid adverse environmental impacts wherever feasible. Key baseline findings and impact assessments are further detailed below.

### 5.2 Environmental and Social Baseline Conditions and Impacts

#### 5.2.1 Land Use

##### Baseline

Project land is under governmental ownership and falls under the jurisdiction of the Ministry of Energy. Therefore, there is no land expropriation or acquisition process to be undertaken for the Project.

Remnants of past construction, including the remains of small house structures and other structures that appear to be abandoned were noted within the Project site. Two (2) such structure remnants were observed within the project footprint. The Khokimiyat and local Mahalla representative confirmed that these are remnants of previous individual housing construction and are currently abandoned. The figures below show the location of these 2 structures within the Project site and photographs taken from the Site.

In addition, a site visit undertaken by the E&S Team identified the presence of scattered waste across the Project site, including not only remnants of old construction materials but also domestic waste. Residents appear to use parts of the Project site as an informal waste dumping area. Clearance of this potentially harmful material will be a positive outcome of the Project, contributing to improved conditions.

The site visit also confirmed that there are no formal land uses within the Project site to include physical or economic activities. However, informal and seasonal livestock grazing was observed, which was also confirmed through consultations with local communities. 7 herders regularly use the Project site for seasonal grazing activities.



Figure 7: The Two (2) Structure Remnants within the Project Site

### Assessment of Impacts

Taking the above into account, the following land use impacts are anticipated:

- No land acquisition impacts are expected, as the land has been under governmental ownership since 2018 and former land users were compensated and relocated in accordance with local legislation.

- Informal, seasonal grazing activities by local households will be affected by the Project, as access to the site will be restricted once the Project begins. While the users do not hold legal rights to the land and no physical assets or crops are present, this loss of access represents economic displacement as defined under EBRD's Environmental and Social Requirement (ESR) 5.

The Developer is developing and will implement a Livelihood Restoration Plan (LRP) in accordance with Uzbekistan legislation as well as EBRD ESR 5. The LRP has involved the following key tasks: stakeholder engagement and grievance management, socio-economic baseline census, drafting and disclosing livelihood restoration planning measures, drafting the Eligibility and Entitlement Framework, and preparing the LRP document.

### **5.2.2 Geology, Hydrology and Hydrogeology**

The ground at the Project site is made up of layers of sand, silt, and clay. Water can be found not far below the surface, although deeper underground water in the area is often salty and not commonly used. The site is located in a seismically active zone, which has been accounted for in the Project design.

There are no permanent rivers or streams within the Project boundary. However, there is a small drainage canal between the Project site and the substation that connects to a wider network of such canals that are used for irrigation of agricultural areas. The site is relatively flat and does not lie within a floodplain. Localized ponding may occur in low areas following heavy rainfall, but overall flood risk is considered low.

### **Assessment of Impacts**

Taking the above into account, the following impacts are anticipated:

- Soil contamination from improper waste, wastewater, or hazardous materials management.
- Groundwater contamination risks if waste or hazardous substances are not properly managed.
- Soil disturbance, erosion and sediment runoff into nearby canals during construction.

### **Mitigation Measures**

The Developer will implement mitigation measures to prevent and control these risks to include but not limited to the following:

- Ensure all waste streams are collected and sent to approved landfills, recycling facilities, or wastewater treatment plants.
- Prohibit any dumping of waste on land and provide sufficient, secure waste containers onsite.
- Ensure septic tanks are well-sealed to prevent leakage.
- Ensure hazardous materials are stored in secure, impermeable, covered, and well-managed facilities to prevent spills reaching soil or canals.
- Implement good housekeeping practices on site and maintain records of all waste generated.
- Salvage and separately stockpile topsoil and subsoil before excavation.
- Erect erosion and sediment control measures (e.g., silt fences, gravel berms).
- Design drainage to safely divert runoff around work areas and mimic natural drainage where possible.

### **5.2.3 Biodiversity**

Baseline biodiversity within the Project site and its surroundings has been assessed through desktop studies and field surveys to record habitats, flora, and fauna. The Project area is largely modified habitat, with limited native flora and fauna present.

In terms of flora and habitat, the Project area is largely modified due to grazing activities and rubble. In addition, no key or critical floral species were recorded all of which were considered native and common. Several native tree species are present within the Project area, which may have been planted as ornamental trees many years ago. In addition, all faunal species recorded are mostly common and widespread, such as frogs, lizards, squirrels and rats.

#### **Assessment of Impacts**

Potential impacts on habitats and species are low, as the site is fully modified. Impacts during construction and operation include minor habitat loss, the risk of pollution, and potential introduction of invasive species, all of which are considered low and manageable. The Project will not involve overhead lines and therefore risks such as bird collision or electrocution are not anticipated.

#### **Mitigation Measures**

The Project will implement a range of mitigation and management measures, including:

- Compensation for the removal of trees from the Project site in accordance with local requirements.
- Demarcation of working areas to prevent habitat loss beyond the construction footprint.
- Controlled lighting near sensitive features such as the drainage canal.
- Prohibition of plant collection and hunting of wildlife.
- Enforcement of speed limits and safe vehicle operations within the site.
- Staff training and site inductions on biodiversity protection.

### **5.2.4 Archeology and Cultural Heritage**

An archaeological and cultural heritage assessment and site survey was carried out by experts, to assess the potential presence of buried archaeological remains.

No archaeological or cultural sites were identified within the Project area. Consultations with local communities also confirmed the absence of archaeological or cultural heritage sites. Therefore, there are no impacts in relation to surface archeology or cultural heritage sites.

Nonetheless, if construction activities are improperly managed, there remains a low possibility of chance-finds of buried remains. To mitigate this, the ESIA requires the implantation of chance find procedures, requiring the immediate halting of construction, fencing of the area, proper signage, and notification of the Ministry of Culture.

### **5.2.5 Air Quality and Noise**

An air quality and noise baseline monitoring program was undertaken at the Project site. Results indicate that pollutant and noise levels are within local and international limits.

Construction activities, including land clearing, leveling, excavation, may cause temporary dust, emissions, noise, and vibration affecting nearby residential and commercial areas. Mitigation measures include watering active areas, covering stockpiles, enforcing vehicle speed limits, maintaining machinery with noise suppressants, and implementing a stakeholder grievance mechanism to allow nearby communities and industries to report any concerns related to dust or noise. No night-time works are planned, as these pose higher safety risks due to reduced visibility.

For impacts on air quality during the operation phase, BESS systems could be associated with release of Polychlorinated Biphenyl (PCBs) or Ozone Depleting Substances (ODSs). However, Project is committed to not using such substances given that they are banned by international conventions, which Uzbekistan is a signatory on.

In terms of noise impacts during operation, BESS systems could be associated with elevated noise levels. As part of the ESIA, a noise impact model has been undertaken to determine noise levels at the closest residential unit from the Project site (presented in the figure below). The noise model has considered worst-case assumptions. The model concludes that noise levels are within the applicable limits during daytime and nighttime, as per local limits as well as international limits, and therefore no additional mitigation measures are required. Monitoring will be undertaken during the operational phase to verify and confirm the model outcomes.



Figure 8: Closest Residential Unit from the Project Site

### 5.2.6 Infrastructure and Utilities

#### Water Resources and Utilities

Water during construction and operation will be required for potable use (e.g., drinking) and non-potable use (e.g., dust suppression). Water requirements are minimal and can be supplied via licensed tankers. A

Water Management Plan will be developed to implement water efficiency measures, including dry-cleaning methods and water-saving fittings.

### **Waste Management**

Solid waste, wastewater, and hazardous waste will be minimal and managed through authorized landfills and WWTPs. A Waste Management Plan will be prepared for construction and operation, covering waste reduction, recycling, reuse, and proper disposal in line with Project standards.

### **Battery Waste Management during Operation / End of Life Disposal**

Improper handling of battery waste could cause soil/water contamination, health risks, and regulatory non-compliance. Before decommissioning or in case of battery damage, a Disposal Plan will be prepared to: (i) evaluate recycling options at licensed facilities; (ii) estimate collection and recycling costs; (iii) ensure compliance with international conventions (Basel Convention); and (iv) include OEM confirmation for safe transport, decommissioning, packaging, and recycling according to best available technology.

### **Traffic and Transport**

Peak Project traffic is estimated at ~25 vehicles/day, representing a minimal increase on both the existing highway capacity and the access road within the Small Industrial Zone (SIZ). The ESIA also identifies health and safety risks relating to potential road accidents caused by speeding, unsafe driving, or driver inattention. A Traffic and Transport Plan will be prepared by the Contractor prior to any transportation activities, including traffic management procedures, consultation with the Ministry of Transport, and engagement to manage logistics. Figure 8 below presents the access routes options into the Project site. The green route, located within the Small Industrial Zone (SIZ), is already in use for the transport of containers and other heavy loads. A full logistics study will be carried out by the EPC Contractor to identify the most feasible transportation option(s). The EPC Contractor will also be responsible for repairing any road damage that may result from the transport of project-related equipment.

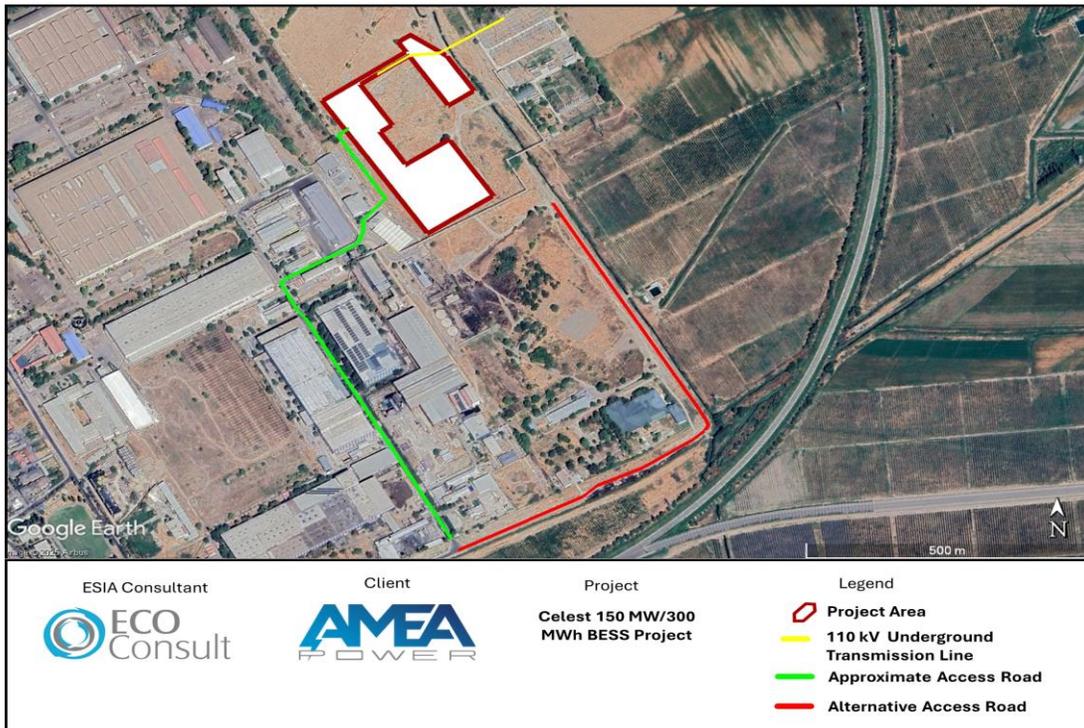


Figure 8: Access Road

### **5.2.7 Worker Welfare, Health and Safety**

During the construction and operation phases, potential impacts are mainly associated with.

- Occupational health and safety risks arise from working at heights, moving machinery, confined spaces, handling hazardous materials, and exposure to fire or electric shock. The ESIA requires the Contractor and Project Operator to develop and implement a project- and site-specific Occupational Health and Safety Plan (OHSP) and Emergency Preparedness and Response Plan (EPRP).
- Inadequate worker accommodation will negatively impact worker welfare, through for example lack of essential services like adequate temperature control, proper food and beverage gender-segregated facilities, washing facilities, and other. Additionally, accommodation that disregards social and cultural needs will affect workers' well-being. ESIA requires the development of an Accommodation Management Plan to ensure personnel welfare and safety.
- Labor and human rights risks may arise if workforce management is not handled appropriately, including breaches of core labor standards (e.g., child labor, forced labor, excessive hours, unfair contracts, or passport retention). Risks of discrimination, harassment, and abuse (including Gender Based Violence and Harassment (GBVH) or Sexual Exploitation, Abuse and Harassment (SEAH). The ESIA requires the development of a Labor and Working Conditions Management Plan (LWCMP), which will include fair working conditions, worker grievance mechanisms, codes of conduct, etc.

### **5.2.8 Community, Health, Safety and Security**

During construction and operation, the Project may give rise to emergency, safety, security, and community-related risks that require management and mitigation, as outlined below:

- Potential emergency risks during construction include fire, electric shock, arc-flash, chemical spills, falling objects, and machinery-related accidents. The site will have safety measures in place, including proper storage of hazardous materials, use of PPE, equipment safety checks, controlled access, and safe work procedures. A Construction Phase EPRP will include trained responders, emergency drills, and coordination with emergency services.
- Potential emergency risks during operation include fire/thermal runaway, explosion, arc-flash, electric shock, and hazardous gas release. The BESS will have multi-layer protection (cell/module control, gas/smoke/heat detection, 24/7 monitoring, etc). An EPRP will include trained responders, drills, and coordination with emergency services.
- Risks from unauthorized access during construction and operation could cause electric shocks, burns, traffic accidents, or chemical exposure. A Security Management Plan (SMP) will set site access controls (fencing, checkpoints) and raise stakeholder awareness.
- Security personnel mismanagement could affect local communities. The SMP will include vetting, codes of conduct, induction training on use of force, security, and human rights. The Project Operator will implement a similar plan for operation.
- Worker influx during construction may increase risks of disease, social vices, and GBVH/SEAH. The ESIA requires a Community Grievance Mechanism to manage complaints, including procedures specifically for GBVH/SEAH. A worker influx plan will also be implemented, covering: centralized accommodation, medical checks before and during employment, hygiene and sanitation measures onsite, and training and awareness-raising sessions on risks of common contagious and communicable diseases, as well as prevention and reporting of GBVH/SEAH incidents.

- Electric and Magnetic Field (EMF) impacts from the BESS and underground 110 kV line are minimal due to enclosure and shielding, remaining well below international public exposure limits.
- Potential issues regarding the transport of materials and heavy machinery passing through the neighboring industrial estate (see Section 5.2.6 Traffic and Road Safety above);
- Potential displacement of existing illegal dumping (fly-tipping) to areas north of the site, which could impact herders using the land for seasonal grazing. As part of stakeholder engagement activities, awareness will be raised within local communities to prevent illegal dumping.

### **5.2.9 Socioeconomics**

The main socio-economic impact of the Project is potential job opportunities for local communities, although this is limited by the nature of Project activities. During construction and operation, the Project is expected to provide at least some local employment (see Section 6.6 for workforce requirements).

Potential negative impacts may arise if employment and procurement engagement is not transparent, expectations are not managed, or opportunities are sourced primarily from outside the local area. While impacts are mainly positive, the following measures are recommended to enhance benefits:

- Keep local communities informed of Project updates, including employment and procurement opportunities, via authorities and community channels.
- Implement a Local Employment and Recruitment Procedure to ensure fair, transparent, and inclusive hiring, prioritizing local residents and women, based on skills and competency.
- Provide training and support to local residents and small businesses to maximize benefits.
- Develop a Community Investment and Development Plan to support local needs.
- Maintain a grievance mechanism to address concerns or complaints related to community engagement and local employment, aligned with the Stakeholder Engagement Plan (SEP).

## **6. ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING**

The ESIA includes an Environmental and Social Management Plan (ESMP) that provides a structured approach for managing and monitoring environmental and social impacts during the Project's construction, operation, and decommissioning phases. The ESMP outlines mitigation measures designed to eliminate or reduce potential impacts to acceptable levels, as well as monitoring actions to ensure these measures are implemented effectively.

Throughout construction and operation, specific activities, indicators, and environmental and social receptors will be monitored. This monitoring may involve observation and recording or more detailed data gathering and sampling. Monitoring reports will be required from the Contractor and Operator during the construction and operational phases. The monitoring results will be useful for assessing the long-term cumulative effects, if any. If on-going problems occur, adaptive mitigation measures can be implemented.

## **7. ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEM (ESMS)**

An Environmental and Social Management System will be prepared that is project and site specific and builds on and considers the requirements of the ESMP. The ESMS will be prepared by the Developer, EPC Contractor and Project Operator. The ESMS will include full plans for each entity as applicable to include

for example a water management plan, traffic and transport management plan, occupational health and safety plan, emergency preparedness and response plan and other.

## 8. ENVIRONMENTAL AND SOCIAL ACTION PLAN

An Environmental and Social Action Plan (ESAP) has also been developed for the Celest BESS Project. The ESAP provides the Project Company with more actions in order to meet EBRD's Environmental and Social Policy and additional international best practices. Key actions include the preparation of annual environmental and social reports, implementation of cybersecurity protocols, and establishment of exclusion zones to protect nearby irrigation canals. Waste management is a major focus, with requirements for segregation, safe disposal of hazardous materials like asbestos-containing materials currently on site. The plan also mandates the development of a decommissioning strategy that prioritises recycling and safe handling of battery components and associated equipment.

Potential health, safety, and community well-being improvements are also provided through lone working assessments, traffic and transport safety measures, and fire safety capacity building. The ESAP also requires clarity on sanitary zone regulations, confirmation of transmission line safety, and certification for emergency systems. Cultural heritage protection is also ensured through archaeological surveys and engagement with national authorities. Overall, the ESAP emphasizes proactive risk management, regulatory compliance, and sustainable practices throughout the project lifecycle.

## 9. FURTHER INFORMATION AND CONTACT DETAILS

The Developer intends to provide all relevant information to the public and which will include but not limited to the following: (i) Stakeholder Engagement Plan (SEP) – including the grievance mechanism for affected stakeholders and communities; (ii) Non-Technical Summary (NTS).

The above is provided at the Developer's website at the following link:

Link: [www.ameapower.com](http://www.ameapower.com)

In addition, hard copies of the above will be available at the following locations. These documents will remain in the public domain for the duration of the Project and will be updated as appropriate.

### **Project Office**

Location

Telephone:

### **Beshkapa Mahalla**

Location: 10 A, Kaltatoy Street, Tashkent

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### **Mirzo Ulug'bek District**

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