



REPORT

Mirny (Kazakhstan) 1GW Wind Farm Project
ESIA Report Chapter 12 - Environmental and Social Management

Submitted to:

Atkas Energy LLP

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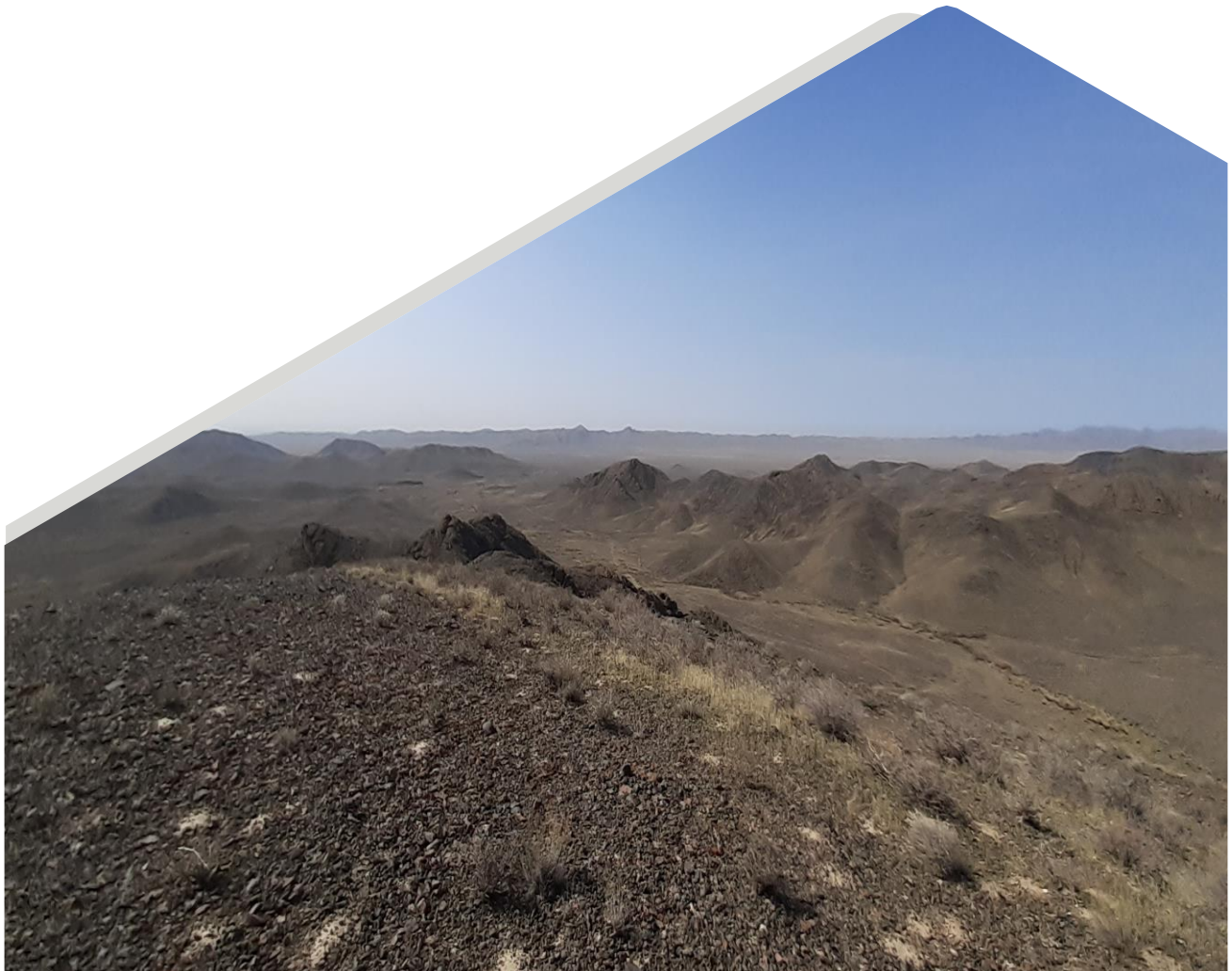
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12.0 ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING

12.1 Scope

Aktas is preparing an Environmental and Social Management System (ESMS) to implement all mitigation measures identified in this ESIA Report and manage the ES performance of the Project. The ESMS is developed in accordance with the Project ES policies, with the commitments in the ESIA and, more broadly, with the regulatory framework of the Republic of Kazakhstan and the ES Standards that apply to the Project; these include the EBRD Environmental and Social Policy (2019), IFC Performance Standards (2012), World Bank General and Sector specific EHS Guidelines, and Equator Principles (2020). This chapter provides an overview of the Project ESMS, while the full structure of the ESMS is described in a separate standalone ESMS Framework Document (24685792-005-R-Rev 1_ESMS FD) that will be disclosed with this ESIA report. Aktas is committed to develop a full ESMS once all relevant information will become available and, in any case, prior starting the construction phase.

The ESMS includes an associated Environmental and Social Management Plan (ESMP) consisting of a set of Management Plans (MPs) prepared for addressing and managing specific ES issues. The current set of MPs provide details of the actions that will be implemented by Aktas through the Construction Contractor TERSK during the construction phase for mitigating and managing Project's ES impacts and risks. Moreover, the MPs include tools for auditing and monitoring the Project's performance and for communicating monitoring outcomes to stakeholders. The ESMP will be expanded in due time to include the MPs that will be implemented during all project phases. All MPs will include consolidated mitigation measures, monitoring and reporting requirements.

The ESMS implements a mitigation hierarchy to address the ES impacts that the Project will generate. The ESMS aims at avoiding environmental and social impacts from the outset of construction activities and, whenever this is not considered possible, it proposes additional measures to minimise, mitigate and, as a last resort, offset and/or compensate any potential residual adverse impacts.

Overall, the objectives of the ESMS are to:

- Develop and implement policies, plans and procedures to integrate ES aspects within the overall Project management framework throughout the Project lifecycle.
- Adopt a mitigation hierarchy to anticipate and avoid, or where avoidance is not possible, minimise, mitigate, compensate or offset impacts on ES receptors.
- Establish a monitoring program to assess the effectiveness of mitigation measures and the effects of residual impacts on ES receptors.
- Report the results of periodic audits and provide for corrective actions as necessary, in order to achieve the planned objectives; and
- Disclose information to stakeholders (including to lenders) and engage with them.

The ESMS and associated ESMP will be subject to a systematic review process to ensure their effectiveness and modified as necessary to best fit the evolving Project needs. Specifically, MPs will be updated and refined through the life of the Project, notably during construction and operations, as will other operational ESMS documents.

The ESMS applies to normal operating conditions during Project construction and operations. Emergency situations resulting from unplanned events are addressed in a specific Emergency Preparedness and Response Plan (EPRP), also an element of the ESMS.

The Project ESMS incorporates the following elements:

- An Environmental, Social, Health and Safety Policy.
- An ESIA report and other documents presenting the results of the process of identification of Project risks and impacts, and a Management of Change procedure.
- Several Environmental and Social Management Plans.
- An Organisational structure including skilled and competent staff that will manage the Project's risks and impacts during construction and operations.
- A process of Stakeholder Engagement guided by a Stakeholder Engagement Plan (SEP).
- Measures and plans for Emergency Preparedness and Response.
- Procedures for ESMS performance monitoring, review and performance reporting.

Contractors and subcontractors are required to develop their own ESMSs including plans and procedures they will have to follow while working for the Project. In order to confirm their alignment with the Project ESMS, such plans and procedures will be reviewed and approved by TERSK on behalf of Aktas.

The following sections of this chapter include an overview of the elements that constitute the Project ESMS. For a full description of the ESMS framework, please refer to the companion ESMS FD.

12.2 ESHS Policy

Aktas has developed an overarching Project-specific environmental and social policy to provide a strategic direction for the Project's activities. The policy builds upon the existing policies adopted by Aktas at corporate level. The policy is consistent with the National legislative requirements and the applicable standards.

TERSK will ensure that employees, at all levels of their organization, are familiar with the policy and procedure. The Policy will be distributed among Contractors and Subcontractors workers, and requirements extended to them through a contractually binding agreement.

12.3 Process of Identification of Risks and Impacts

This Chapter 12 is part of the Project ESIA report that presents the results of the assessment of Project's risks and impacts, and the control measures developed to mitigate residual impacts. The ESIA process has consisted of the following steps:

- Review of available Project information and E&S documentation and early consultations (summer 2023).
- Scoping Visit (October 2023).
- Scoping Report (February 2024);
- Biodiversity Surveys (ongoing since Spring 2023).
- Supplementary baseline survey and consultations (July 2024).
- Baseline Reports (End of 2024).
- Delivery of the draft Impacts Assessment report (April 2025).
- Revision and Finalisation of the ESIA report and other ESMS documentation (September- October 2025) following the review of the E&S documentation by the Lender's E&S Advisor (Ramboll; May to June 2025), their site visit together with Aktas and WSP (July 2025) and the issuance of the Advisor's report (August 2025).

As part of the ESIA process, Aktas has also developed a management of change procedure (MoC) for identification of risks and impacts that may result from future Project changes and may be different or additional to those that have already been identified and assessed in the ESIA process. Such risks and impacts will be screened, and their level of significance assigned to categories of high, medium and low significance. The MoC will be implemented to screen any Project changes and track the necessary information to effectively manage the consequences of the change on environmental and social components of the Project's Area of Influence and ensure minimal impact on the Project activities/operations.

Further details on the MoC procedures adopted are provided in the ESMS FD. The MoC has been developed as a standalone document part of the ESMS documentation.

12.4 Environmental and Social Management Plans

Aktas has developed construction management plans that outline mitigation and performance improvement measures as well as appropriate actions that address the identified Project risks and impacts. The full set of construction ES MPs and management procedures prepared for fulfilling the ESIA commitments includes the following:

- Cumulative impacts with other existing or reasonably planned and future projects.
- Air emission (in particular dust).
- Noise emissions.
- Wastewater discharge.
- Waste production.
- Hazardous materials management.
- Soil management.
- Water/Energy resources management.
- Blasting and explosive management.
- Employment and labour issues.
- Traffic related risks and impacts.
- Influx of people related risks and impacts.
- Community health and safety issues.
- Employees health and safety management.
- Issues resulting from the process of land acquisition, physical and economic displacement.
- Issues related to the management of supply chain risks and impact.
- Cultural heritage.
- Biodiversity management.

Each management plan part of the ESMP clearly describes the general objectives (or purpose) of mitigations. The ESMP also identifies Key Performance Indicators (KPIs) and performance targets that can be of qualitative

or quantitative nature; these will be then monitored during construction for evaluating the ESMP and, overall, the ESMS implementation performance in addressing Project's impacts and risks. For each KPI the management plans set, if applicable and feasible, specific targets (for quantitative indicators) or acceptance criteria (for qualitative indicators) derived from the Project Standards defined in the ESIA that will be tracked over defined periods of time.

The ESMP and mitigations measures have been designed also in considerations of the results of stakeholder engagements activities and of the expectations and concerns that stakeholders have on the Project and that they voiced during stakeholder meetings. The ESMP and the mitigation measures will be disclosed to the stakeholders as provided by the SEP.

The full set of construction ESMPs is already in place. For the operational phase, the operational ESMPs will be prepared six months before the start of operations. While the Decommissioning Plan will be developed six months before the start of decommissioning activities.

12.5 Organisational Capacity and Competency

The implementation of the ESMS requires that all parties involved in Project implementation (both construction and operation phases) define dedicated organizational structures with clearly identified roles and responsibilities for managing Environmental, Social, Health and Safety impacts and risks. The companion ESMS Framework Document presents Aktas and TERSK organograms for the construction phase, along with a description of key roles and positions within their organisational structure. Job-specific roles and positions together with their job descriptions and responsibilities are further described in the individual ESMPs.

In alignment with the requirements of EBRD PR1 and IFC PS1, TERSK, on behalf of Aktas, will ensure that job-specific training (see section *Training, Awareness and Competence* of the ESMS Framework for additional details) will be in place to ensure that all employees are qualified and aware of the policies and procedures. TERSK will require that contractors and subcontractors have appropriate training for all their employees operating on the Project.

Through TERSK, Aktas is committed to ensuring that sufficient human and financial resources are provided throughout the Project lifecycle so that an effective and continuous ES performance is achieved.

Training provisions and requirements for the construction phase are included in the component-specific management plans.

12.6 Stakeholder Engagement

As part of the ESIA process Aktas has completed a series of stakeholder engagement activities that include disclosure of Project information in newspapers and websites, public hearings, meetings with communities, and consultation with public authorities.

In line with EBRD PR10 and IFC PS1 requirements, a SEP has been prepared in 2021 and has been recently updated. The SEP outlines a systematic approach to stakeholder engagement to support TERSK in developing and maintaining strong and constructive relationships with the stakeholders and in addressing their concerns about the Project. The SEP assists in avoiding and minimizing the social risks and to ensure that the Project has a long-term social license to operate. The SEP is already operational and has guided several rounds of consultations held as part of the ESIA process. The SEP will be further implemented and will be regularly monitored, reviewed and updated by TERSK throughout all stages of the Project implementation to ensure that it remains fit for purpose.

Trough TERSK, Aktas is committed to maintaining clear and continuous communication with stakeholders through public consultations as well as internal and external grievance mechanisms that will allow stakeholders to submit (formally and informally) their opinions and complaints about the Project.

More information regarding past, ongoing and future communication to and engagement with stakeholder and the Grievance Mechanism is provided in the ESMS Framework document under section *Stakeholder Engagement*, while full details are available in the SEP.

12.7 Emergency Preparedness and Response

Aktas is preparing an *Emergency Preparedness and Response Plan* (EPRP) that provides a framework for effectively responding to emergency situations that may result in adverse environmental and/or social impacts. In preparing the EPRP Aktas considers inputs from stakeholders consulted over the years and specifically of communities ensuring that a robust response system is put in place. The development of response procedures aims at ensuring that employees have access to the necessary resources and are aware of techniques and methods to be used when responding to emergencies.

TERSK and will require that the Contractor and Subcontractors also develop an EPRP in line with the Project Standards, focusing on their job-specific needs. Such plans shall be developed involving Affected Communities and other local governmental agencies and shall be approved by TERSK.

The EPRPs will be periodically reviewed and revised to reflect possibly changing conditions during the construction phase. Moreover, a specific EPRP for Project operations will be developed ahead of the commencement of operations.

Further details are described in the ESMS Framework document under section *Emergency Preparedness and Response*.

12.8 ESMS Audit, Monitoring, Review and Performance Reporting

Aktas has identified audit and monitoring (intended as measurements) actions that each ESMP part of the ESMP will implement. Monitoring activities and related reporting have been described in the ESMPs consistently with the Project ESHS Policies and the commitments included in the ESIA. The ESMPs clearly identify audit and monitoring methodologies, KPI, targets/acceptance criteria and any mandatory limits (and the relative source document). Clear responsibilities are assigned in the ESMPs to ensure that audit and monitoring actions have an implementation responsible party (TERSK, in its role as ESMS implementing party, Contractors and Subcontractors).

The ESMS also includes audit and review provisions for ensuring the effective implementation of the system, namely an internal inspection and audit system to periodically verify the following:

- The full implementation of the ESMS in conformity to the requirements set therein.
- The correct implementation of Contractor and subcontractor MPs (descending from the Project's ESMPs requirements).
- The Project operation compliance to the national regulatory requirements (Kazakh legislation and relevant permits), to the ESIA commitments, to the EBRD ES Policy, the IFC Performance Standards and EPIV.
- Contractors and subcontractors meet their contractual obligations.

When issues of concern are identified, they will be classified as follows:

- Non-Conformity (N-CF): non-fulfilling, lack or deviation to requirements of the ESMS (which includes the ESMP);

- Non-Compliance (N-CP): non-fulfilling, lack or deviation to requirements of external rules and regulations, such as IFC PS, EPIV and Kazakh Regulations; and
- Observation (OBS): issues for which no clear lack or deviation to requirements are identified but that may need specific actions aimed at improving performance.

Such issues of concern will be further classified into the level of severity (Level 1 – high; Level 4 – low). Furthermore, corrective actions will be developed as appropriate to the effects of the issues encountered and preventive actions adopted (See ESMS Framework under section *Performance Records and Audit* for more details).



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