

Note: CPIH (the Client) is overall responsible for ensuring all ESAP actions are delivered and complied with.

No.	Action	Resources	Timetable	Target and Evaluation Criteria for Successful Implementation	Status
<b>1) ESS 1 – Assessment and Management Process</b>					
1.1	<p>Undertake a supplementary assessment to international standards of the impacts of all sub-projects in combination, to account specifically for the findings of the additional surveys and assessments etc specified in items 3.1, 3.2 &amp; 3.3 of this ESAP. The Supplementary Assessment may take the form of standalone assessment chapters or may be recorded in management plans to the extent that this is appropriate. In the case of Biodiversity, the deliverable shall include an update to the Critical Habitat Assessment. The Supplementary Assessment shall identify any additional mitigation required to be implemented, and the mechanism for operationalising mitigations (such as capturing in existing or developing new management plans and procedures etc).</p>	CPIH internal resources, external consultants	Prior to first disbursement	<ul style="list-style-type: none"> <li>- Supplementary impact assessment report issued</li> <li>- 'no objection' from AIIB</li> </ul>	
1.2	<p>Commission, execute and address the findings of a third-party external audit/s of CPIH's environmental, health, safety and social O&amp;M phase management system/s (collectively referred to as the environmental and social management system (ESMS)).</p> <p>The audit/s shall be carried out by qualified third-party EHS management system auditors, experienced in the ISO suite of standards including ISO 14001 and ISO 45001 and fluent in written and oral Chinese (or language of the management system documentation, if different) and English.</p> <p>The audits shall be carried out against the following standards:</p> <ul style="list-style-type: none"> <li>- IFC Environmental and Social Management System (ESMS) Implementation Handbook (general) and associated ESMS toolkit, self-assessment and improvement guides (<a href="https://www.ifc.org/en/insights-reports/2015/publications-handbook-esms-general">https://www.ifc.org/en/insights-reports/2015/publications-handbook-esms-general</a>)</li> <li>- Where relevant to the topics covered under the IFC ESMS Implementation Handbook and to the extent that material requirements are not captured therein (such as in relation to change management), applicable requirements of the ISO 14001 and 45001 standards.</li> </ul>	External consultants for audit / internal or external to address actions	<p>Prior to first disbursement</p> <p>No later than 6 months after the first disbursement.</p> <p>As per timeline specified in audit report.</p>	<ul style="list-style-type: none"> <li>- Audit commissioned and delivery of audit scope started.</li> <li>- Audit report finalised and timebound and costed corrective action plan signed off by CPIH and KEI management, and 'no objection' from AIIB.</li> <li>- Close out of priority corrective actions</li> <li>- Close out of additional corrective action plan actions.</li> </ul>	
1.3	<p>Commission, execute and address the findings of a third-party external audit/s of KEI's environmental, health and safety O&amp;M phase plans, procedures and associated documentation (work method statements, risk assessments, permit to work system, records, standard operating procedures, training and competence matrices, near miss, incident and accident recording and tracking etc) relevant to the environmental aspects and occupational and community health and safety risks of the KEI O&amp;M scope.</p> <p>The audit/s shall be carried out by qualified third-party consultants (e.g., NEBOSH certified),</p>	External consultants for audit / internal or external to address actions	Prior to first disbursement	<ul style="list-style-type: none"> <li>- Audit report finalised and timebound and costed corrective action plan signed off by CPIH and KEI management, and 'no objection' from AIIB.</li> <li>- Close out of priority corrective actions</li> </ul>	

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	<p>experienced in the development and application of international-standard EHS documentation on projects and fluent in written and oral Chinese (or language of the project documentation, if different) and English.</p> <p>The audit/s shall be carried out against the following standards:</p> <ul style="list-style-type: none"> <li>- World Bank Group EHS Guidelines – General 2008 (<a href="https://www.ifc.org/en/insights-reports/2000/general-environmental-health-and-safety-guidelines">https://www.ifc.org/en/insights-reports/2000/general-environmental-health-and-safety-guidelines</a>)</li> <li>- World Bank Group EHS Guidelines for Wind Energy 2015 (<a href="https://www.ifc.org/en/insights-reports/2000/ehs-guidelines-power">https://www.ifc.org/en/insights-reports/2000/ehs-guidelines-power</a>)</li> <li>- World Bank Group EHS Guidelines for Electric Power Transmission and Distribution 2007 (<a href="https://www.ifc.org/en/insights-reports/2000/ehs-guidelines-power">https://www.ifc.org/en/insights-reports/2000/ehs-guidelines-power</a>)</li> <li>- Additional good international industry practice (to be informed by the consultant) including e.g., permit to work procedures, lock-in lock-out for electrical works etc.</li> </ul> <p>The audit/s shall also determine conformance of the documentation with the CPIH overarching ESMS (including any corrective actions thereto as may be required subject to ESAP action 1.1).</p> <p>The audits shall identify both:</p> <ul style="list-style-type: none"> <li>- Improvements (if any) needed in existing documentation,</li> <li>- New documentation (if any) needed to be developed to address gaps.</li> </ul> <p>The audit shall include within its scope (but not be limited to):</p> <ul style="list-style-type: none"> <li>- Processes and procedures for assuring, on an ongoing basis from pre-contracting through to contract completion, the compliance of all contractors and sub-contractors with the audit standards specified above</li> <li>- Consideration of waste management plans, procedures, practices and facilities</li> <li>- Recording and investigation of incidents, accidents and near misses</li> <li>- Process/es for tracking of trends</li> <li>- Process/es for tracking of corrective actions</li> <li>- Requirements for HSE audits and inspections</li> <li>- HSE training requirements, including availability and adequacy of a training and competence matrix or equivalent</li> <li>- Presence and compliance with Good International Practice of a Permit to Work system for high-risk activities</li> <li>- Presence and compliance with Good International Practice of a Lock-out Tag-out system for works on electrical equipment</li> <li>- Determination of the presence of an Emergency Response Plan (ERP) conforming to the requirements specified in ESAP item 4.1. If such plan is determined to be present, the auditor shall assess compliance with Good International practice (including ESAP item 4.1 requirements) and advise in the audit report if this ERP is sufficient to close out ESAP item 4.1 (subject or not subject to improvement actions that may be specified in the audit report).</li> </ul>		<p>As per timeline specified in audit report.</p>	<ul style="list-style-type: none"> <li>- Close out of additional corrective action plan actions in accordance with the agreed timeframes.</li> </ul>	
1.4	<p>Maintain and implement the Company's (CPIH) supply chain management system to identify, manage and remediate supply chain risks associated with environmental, social and human rights risks and impacts. This includes the provided due diligence and management</p>	<p>CPIH internal resources, external consultants</p>	<p>No later than 3 months after the first</p>	<ul style="list-style-type: none"> <li>- Updated evidence of implementation of supply chain management system (due diligence reports, risk</li> </ul>	

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	<p>procedures for the sourcing and maintenance of turbines, towers, blades and other components including for operation and maintenance in accordance with Good International Practice. With respect to WPP supply chains, the management system includes:</p> <ul style="list-style-type: none"> <li>• Responsible Sourcing Policy;</li> <li>• Supplier Management Procedure;</li> <li>• Code of Conduct for suppliers including “blocklist” system to exclude potential suppliers that do not meet the responsible supply chain requirements;</li> <li>• Letter of Commitment provided by suppliers to comply with responsible supply chain requirements; (as already provided) <i>[but need to be updated from EBRD to AIIB]</i></li> <li>• Annual training on social risks in the supply chain for employees involved in selecting and evaluating suppliers;</li> <li>• Mapping and risk assessment of wind power plant module suppliers;</li> <li>• Define specific measures to be implemented in case the mapping reveals potential exposure to forced labour;</li> <li>• Inclusion of appropriate clauses in procurement notices and contracts with wind power module contractors and suppliers on labour risks and management thereof;</li> <li>• Ensure to complete all actions to remediate and/or rectify the identified risks during the independent third-party audit (ERSA).</li> <li>• Labour audits of the wind power plant modules manufacturer or, as required and to the extent possible sub-suppliers', manufacturing facility(ies) during the production upon reason to believe that a breach of forced labor provisions has occurred;</li> <li>• Requirements for traceability protocols from wind power plant module suppliers as per the provided Bill of Materials (BOM);</li> <li>• When possible and necessary, requirements for wind power plant module suppliers to conduct (or provide) traceability audits of their supply chains; and</li> <li>• Document third-party verification of the origin of the BOM materials as listed in the BOM(s).</li> </ul> <p>The key aspects of the Company's supply chain management system (including roles and responsibilities) will be detailed in the project's ESMS (e.g. in the Subcontractor and Supplier Management plan), with references to the corporate's supply chain management system where applicable.</p>		disbursement.	<p>assessment, contract clauses, labor audits reports, code of conduct, letter of commitment etc.) including in the event of changes in the supply chain or the supply chain management system.</p> <ul style="list-style-type: none"> <li>- Supply chain management system (including roles and responsibilities) detailed in the project's ESMS.</li> </ul>	
1.5	Ensure that all necessary resources and sufficient qualified EHSS personnel are in position to oversee and implement this ESAP, the ESMS and all associated plans, procedures and documentation etc for CPIH, KEI and all additional and / or alternative contractors .	CPIH, KEI, Windy internal resources.	Prior to first disbursement	<ul style="list-style-type: none"> <li>- Organisational charts developed for EHSS management in CPIH, KEI and Windy and positions filled.</li> <li>- Non-human resources for delivering E&amp;S commitments and obligations identified, budgeted and obtained (or included in subsequent annual budgets where appropriate)</li> </ul>	
1.6	Undertake all Project activities for the lifecycle of the Project in compliance with AIIB's Environmental and Social Policy (ESP). In this regard CPIH and its contractors and sub-	CPIH, KEI, Windy and any future contractors'	Ongoing for Project	<ul style="list-style-type: none"> <li>- CPIH E&amp;S Monitoring reports for AIIB (annual)</li> </ul>	

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	<p>contractors shall:</p> <ul style="list-style-type: none"> <li>- Implement, maintain and update as needed the ESMS and all associated environmental, health, safety and social management plans, procedures, and documentation etc for CPIH and its contractor teams, as finalised in accordance with actions specified in this ESAP for the Project lifecycle or otherwise developed prior to or as part of the ESDD process (such as CPIH supplier management system, operations phase worker accommodation plan, noise management plan, shadow flicker management plan, biodiversity management and monitoring plan etc.)</li> <li>- Maintain sufficient resources and personnel (as per ESAP action 1.5) for the Project lifecycle.</li> </ul>	<p>internal resources, supplemented with external resources as identified as needed.</p>	<p>lifecycle</p>	<ul style="list-style-type: none"> <li>- AIIB supervision audits (on ad hoc basis)</li> </ul>	
1.7	<p>Update and implement the Stakeholder Engagement Plan (SEP) prepared for the Project. Appoint a qualified Community Liaison Officer (CLO) for community engagement and management of the grievance redress mechanism (GRM) available to local residents and other stakeholders.</p> <p>Review the effectiveness of the grievance mechanism quarterly and report to AIIB bi-annually.</p>	<p>KEI Internal resources (with key role for CLO)</p> <p>Finance allocated for the CSR based on agreements with local authorities.</p>	<p>SEP update and CLO appointment prior to first disbursement; and Implementation ongoing for Project lifecycle</p>	<p>SEP and GRM updated and implemented throughout the Project lifecycle and internally reviewed regularly (quarterly ).</p> <p>Public disclosure (including community based) to be completed for each prepared and updated documentation.</p> <p>Records of stakeholder engagement activities properly maintained and reported to the Bank as part of annual E&amp;S reporting.</p> <p>Records of grievances and their resolution status properly maintained and reported to the Bank bi-annually and as part of annual E&amp;S reporting.</p> <p>Outputs of the CSR will be reported to the Bank as part of annual E&amp;S reporting.</p>	
<b>2) ESS 1 – Labor and Working Conditions</b>					
2.1	<p>Commission, execute and address the findings of third-party external audit/s of CPIH and KEI human resources (HR) policies and other policies and procedures governing labour and working condition standards (excluding health and safety) – such as procurement policies and supplier codes of conduct - in the project company, contractors, and supply chain (including sub-contractors).</p> <p>The audit/s shall be carried out by qualified third-party consultants, experienced in international labour and working condition standards and fluent in written and oral Chinese (or language of the project documentation, if different) and English.</p> <p>The audits shall be carried out to determine conformity of the Project with AIIBs ESS1 Section F (<a href="https://www.aiib.org/en/policies-strategies/framework-agreements/environmental-social-framework.html">https://www.aiib.org/en/policies-strategies/framework-agreements/environmental-social-framework.html</a>).</p>	<p>External consultants for audit / internal or external to address actions</p>	<p>Prior to first disbursement</p> <p>No later than 3 months after the first disbursement</p>	<ul style="list-style-type: none"> <li>- Audit commissioned and delivery of audit scope started.</li> <li>- Audit report finalised and timebound and costed corrective action plan signed off by CPIH and KEI management (as applicable), and 'no objection' from AIIB.</li> <li>- Close out of priority corrective actions</li> </ul>	

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			As per timeline specified in audit report.	- Close out of additional corrective action plan actions.	
2.2	Based on the Audit report [item 2.1] prepare and adopt the Labor Management Procedures (LMP) to promote sound worker-management relationships, fair treatment and provide safe and healthy working conditions.	CPIH internal resources, external auditors.	LMP adopted no later than 6 months after the first disbursement	LMP prepared and 'no objection' from AIIB.	
2.3	Establish, maintain, and operate a GRM for Project employees, consistent with AIIB's ESP and international best practices.	KEI internal resources	Prior to first disbursement	Adoption and implementation of employee grievance mechanism.	
<b>3) ESS 1 – Environmental Coverage</b>					
3.1	<p>Commission and undertake a shadow flicker study and commission, develop and implement a shadow flicker management plan (if demonstrated to be needed), that will be informed by the study.</p> <p>The methodology for the study may be desk-based and / or take into account quantified impacts from the implemented and operational turbines. It may utilise the findings from previous assessments as appropriate and in accordance with Good International Practice. The study shall however assess the effects of all turbines (including those not modelled under previous studies) to the extent that such turbines could feasibly result in impacts. The study and its findings shall conform to the World Bank Group EHS Guidelines for Wind Energy (the Wind Energy Guidelines) (<a href="https://www.ifc.org/en/insights-reports/2015/publications-policy-ehs-wind-energy">https://www.ifc.org/en/insights-reports/2015/publications-policy-ehs-wind-energy</a>).</p> <p>If the study confirms shadow flicker may occur at a sensitive receptor for greater duration than set out in the Wind Energy Guidelines paragraph 39, then a management plan will be developed that sets out the technically feasible actions that will be taken to:</p> <ol style="list-style-type: none"> <li>Effectively monitor the actual shadow flicker incidence in rolling 12-month periods.</li> <li>Prevent impacts exceeding the thresholds set out in paragraph 39 of the Wind Energy Guidelines.</li> <li>Manage any ad-hoc community grievances relating to shadow flicker.</li> </ol>	Internal resources, external consultants	Prior to first disbursement	<ul style="list-style-type: none"> <li>- Shadow Flicker Study issued and 'no objection' from AIIB</li> <li>- Shadow Flicker Management Plan (as necessary) issued and 'no objection' from AIIB</li> </ul>	

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3.2	<p>a) Commission, undertake and report findings and conclusions of noise monitoring at residences identified in the Borey WF ESIA where the cumulative noise impact of the Project could exceed the nighttime noise limit of 45 dB(A). Alternatively, noise modelling may be re-run for the Project (including all sub-projects) based on as-built specifications and in accordance with the Wind Energy Guidelines paragraph 20, to identify appropriate receptors at which to install monitoring equipment.</p> <p>Noise monitoring shall be carried out in compliance with IEC 61400-11 Wind Turbines Part 11: Acoustic Noise Measurement Techniques (as amended or revised). The method used and units of measurement applied shall enable results and conclusions to be determined in accordance with the guidelines below. Monitoring should be carried out during worst case conditions (such as wind speed and direction, rainfall and presence / absence of other noise sources etc – as advised by the monitoring consultant), or otherwise an appropriate proxy of worst case conditions justified.</p> <p>Results and conclusions of monitoring shall be presented according to the noise thresholds in the World Bank Group General EHS Guidelines (<a href="https://www.ifc.org/content/dam/ifc/doc/2023/ifc-general-ehs-guidelines.pdf">https://www.ifc.org/content/dam/ifc/doc/2023/ifc-general-ehs-guidelines.pdf</a>) Table 1.7.1.</p> <p>b) Commission and develop an operations phase Noise Management Plan. If the noise monitoring identifies that noise thresholds are being exceeded, this plan shall set out the measures that will be taken by the project to reduce the noise impacts to acceptable levels. The plan shall also define the actions that the Project shall take should noise complaints from community members be received. If noise thresholds are not exceeded the plan shall only capture the latter.</p>	CPIH / KEI internal resources, external consultants	Prior to first disbursement	<ul style="list-style-type: none"> <li>- Noise Monitoring Report issued and 'no objection' from AIIB.</li> <li>- Noise Management Plan issued and 'no objection' from AIIB.</li> </ul>	
3.3	<p>Commission, undertake and report on the following additional biodiversity surveys:</p> <ol style="list-style-type: none"> <li>a) Set up a sample vantage point to observe turbine A10-3 and carry out a minimum of six hours of flight activity surveys at it during the passage migration period. Use this to assess the viewshed's potential importance for bird migration.</li> <li>b) Carry out bat surveys of the site and an appropriate buffer during the bat migration period.</li> <li>c) Carry out a targeted reptile and amphibian survey of the site and an appropriate buffer zone or provide further reasoned justification as to why a survey is not required.</li> <li>d) Carry out an invertebrate survey or appropriate desk study of the site and an appropriate buffer zone.</li> </ol> <p>All surveys shall be undertaken in accordance with recognised Good International Practice.</p>	Internal CIPH resources, external consultants	Prior to first disbursement	Survey reports issued and 'no objection' from AIIB.	
3.4	<p>Commission and produce a Biodiversity Management, Monitoring and Evaluation Plan (BMMEP). The BMMEP shall:</p> <ul style="list-style-type: none"> <li>- Include any mitigation and monitoring measures for the O&amp;M phase needed to avoid / minimise impacts and monitor the effectiveness of mitigations for habitats and species as identified as necessary in the original Borey WF ESIA and Supplementary Assessment for Biodiversity (ESAP Item 1.1).</li> <li>- Specify a programme of habitat regeneration monitoring for all areas disturbed during</li> </ul>	Internal CPIH resources, external consultants	<p>Prior to first disbursement</p> <p>No later than 3 months after the first</p>	<p>Draft BMMEP issued to ACBK and AIIB for consultation.</p> <p>Final BMMEP issued and 'no objection' from AIIB.</p> <p>Fatality Monitoring Capacity Report issued</p>	

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	<p>construction (wind farm, buried cables, access roads, and transmission line amongst others); a menu of actions that may be taken in the event that natural revegetation to baseline conditions does not occur in an ecologically reasonable timeframe (to be defined in the BMMEP); and a decision process for determining what actions would be suitable to be taken, where (in what situations) and when.</p> <ul style="list-style-type: none"> <li>- In relation to birds, the BMMEP shall:</li> <li>- Include a post-construction fatality monitoring plan that is fully aligned with the CMS Energy Task Force post construction monitoring plan as developed by IFC, EBRD and KfW (Good Practice Handbook on Post-construction Bird and Bat Fatality Monitoring for Onshore Wind Energy Facilities in Emerging Market Countries and Decision Support Tool (ifc.org)).</li> <li>- This shall include a timebound plan of actions (as an annex to the BMMEP) that will be taken to build capacity to deliver the fatality monitoring. The action plan shall include a commitment that a report evidencing that capacity exceeds the minimum threshold for undertaking effective monitoring (the Fatality Monitoring Capacity Report) will be prepared and issued to Lenders.</li> <li>- Define what would constitute high numbers of bird fatalities.</li> <li>- Detail adaptive management and mitigation measures if high fatality levels are recorded.</li> <li>- Include a commitment to deliver an annual report to Lenders on the output of the BMMEP, including the fatality monitoring.</li> </ul> <p>The draft Final BMMEP shall be consulted on by the Association for the Conservation of Biodiversity in Kazakhstan (ACBK)- specifically in relation to advice on habitat management for protected species - and Lenders. The Final BMMEP shall address any scientifically valid advice obtained via the consultation process.</p>		disbursement (or 6 weeks after receipt of ACBK and AIIB comments)	and 'no objection' from AIIB.	
3.5	Install flight diverters, the type and extension of which shall be informed by an appropriately qualified and experienced biodiversity expert, on the overhead power line in those areas that birds commute between waterbodies and limans.	Internal CIPH resources, external consultants	Prior to first disbursement  No later than 6 months after the first disbursement	Contract in place to install diverters.  Diverters in place and evidence of installation accepted by AIIB.	
<b>4) ESS 1 – Health and Safety</b>					
4.1	<p><b>Applicable subject to finding of ERP check specified as part of audit under ESAP item 1.3.</b></p> <p>A Project specific operational emergency response plan shall be developed, including identification of emergency scenarios, response procedures for those scenarios, responsibilities, resources (equipment and personnel) and training. The ERP should consider the remote nature of the site, the limited local public response capabilities, and the potential for access restrictions, particularly during the winter when roads may be closed.</p> <p>The ERP should consider all Project components (turbines, substation, OHL, etc.), including potential for blade spinning and nacelle fires.</p>	CPIH internal resources	no later than 6 months after the first disbursement	- Emergency Response Plan finalised and 'no objection' from AIIB	

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	<p>The ERP shall identify the resources necessary for emergency response that shall be made available at the Project site, including fire detection and fire suppression equipment (including in nacelles), spill response materials and medical assistance.</p> <p>The ERP shall specify the requirements for dedicated and trained emergency response personnel and presence onsite, taking into account staff rotations and shift work.</p> <p>Emergency measures for risks associated with uncontrolled blade spinning or throw should include notification procedures for residents and other potentially affected stakeholders.</p> <p>The ERP shall specify how workers attending the site during cold conditions will be made aware of potential hazards associated with ice build-up on the turbine structures, how those risks shall be assessed, and confirm that in the event of unacceptable risk, no tasks associated with the turbine structures shall be carried out.</p> <p>The ERP shall include as an annex (or otherwise cross reference an alternative management system document) a programme of preventative maintenance and inspection for all emergency response equipment.</p>				
<b>5) ESS 1 – Community Health and Safety</b>					
5.0	<p>Monitor activities to ensure no impact within the Project area as well as outside land leased for the Project and ensure that any impact, damage or encroachment is either compensated or reinstated to its original state.</p>	<p>Internal CIPH resources (with key role for CLO and relevant staff)</p>	<p>Ongoing for Project lifecycle</p>	<p>No livelihood losses by any affected person.</p>	
<b>6) ESS 2 – Land Acquisition and Involuntary Resettlement [Not Triggered]</b>					
<b>7) ESS 3 – Indigenous Peoples [Not Triggered]</b>					