

## Environmental and Social Action Plan - Kovačica Windfarm, Serbia

The table below constitutes the ESAP. It identifies the required actions, the basis of the requirement, the timing of the action, the criteria to be used for determining whether the required action has been successfully achieved, and information that will be reported to the Lenders. Implementation of the actions is the responsibility of EKW. When contractors perform work under contract to EKW or their designee(s), EKW will be responsible for those contractors' compliance with the requirements of the ESAP. This is expected to be accomplished by inclusion of requirements in contracts and subcontracts, and by direct oversight and supervision by EKW and/ or its designee, as needed.

Performance of the actions required by this ESAP will be reported to the Lenders by EKW as required by the ESAP and the financing agreements. The ESAP will be audited or otherwise evaluated by the Lenders throughout construction and operation of the Project. As agreed by the Lenders and EKW, this ESAP may be revised from time to time during Project implementation, sometimes in response to evaluations conducted under the ESAP itself. No changes will be made if they could allow violations of Serbian law or of Lenders' requirements for environmental and social performance.

Changes to the 2013 ESAP are shown underlined and highlighted in yellow.

No	Action	Source of Requirement	Resources / Responsibility	Timetable for Action Completion	Target and Evaluation Criteria for Successful Implementation
0	Submit report to the Bank on environmental, health, safety and social performance (EHSS), including status of each ESAP element and other agreed activities including resolution of grievances associated with the project.	Continual assessment of EHSS performance against EBRD PR's and IFC PS's	Internal resource.	6 monthly during construction. Annually during operation.	Submission of reports on environmental, health and safety, and social (EHSS) performance on schedule and in a mutually agreed format.
<b>1</b>	<b>EBRD PR 1: Environmental and Social Management / IFC PS1: Assessment and Management of Environmental &amp; Social Risks and Impacts</b>				
1.1	Develop an integrated <u>Environmental and Social Management System (ESMS) environmental, social, health and safety management system (ESHS) that includes for occupational health and safety. Relevant requirements during construction and operation should be made the responsibility of WTG supply and FSA contractors. [Note: system(s) should generally meet objectives of ISO14001 and OHSAS 18001, but need not be certified].</u>	Best practice EBRD PR1, PR2, PR4, PR6 and PR8 IFC PS1, PS2, PS6 and PS8	Internal resource (or supported by external consultant).	Prior to construction initiation. Maintain permanently during construction and operation.	ESMS developed by qualified consultant, staff trained, system implemented. Status of system to be reported to the relevant financial institution (in line with ESAP item 0).
1.2	Establish and implement corporate policy, <u>MS framework</u> and procedures for environmental, social and occupational health & safety (ESHS) performance, to include (at a minimum): <ul style="list-style-type: none"> <li>• ESHS procedures and system for compliance reporting and monitoring;</li> <li>• Inclusion of appropriate Environmental and Social Management Plan (ESMP) and legal requirements in contracts/subcontracts, including requirement for staff/management training;</li> <li>• Assignment of clear responsibilities within Electrawinds for contractor oversight;</li> <li>• Regular inspections of contractors' construction operations;</li> <li>• Contractor reports on performance sufficient to allow inclusion of data in ESHS reports to the Bank, and to allow Electrawinds to determine if corrective actions are needed; and</li> </ul>	Best Practice EBRD PR1 IFC PS1	Internal resource (or supported by external consultant).	Prior to construction initiation. Maintain permanently during construction and operation.	Preparation of ESMP and annual ESMP update report to relevant financial institution. Appointment of qualified person. Qualifications submitted with first relevant report under ESAP item 0. Responsible person maintained at all times.

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	<ul style="list-style-type: none"> <li>Verification of training and professional qualifications for contractor ESHS managers and staff.</li> </ul>				
1.3	<p>Ensure sufficient capabilities to address ESHS issues associated with the project and to ensure appropriate ESHS management of contractors.</p> <p><u>Design a framework for defining the organisational structure of the EWK Project Management Team, with all key roles represented in an organogram. Appoint and maintain person(s) to be responsible for environmental, social, and occupational health and safety for the project, to report directly to the project manager, and subsequently to the EWK management board.</u></p>	Best Practice EBRD PR1 IFC PS1	Internal resource (or supported by external consultant).	At all times during project lifespan.	<p>Clear ESHS requirements.</p> <p>Qualified ESHS personnel available.</p> <p>Qualifications submitted with first report to relevant financial institution (in line with ESAP item 0).</p>
1.4	Appoint and maintain on-site a person to be responsible for ESHS compliance, to report directly to the project manager, and to Electrawinds management.	Best Practice EBRD PR1 IFC PS1	Internal resource (or supported by external consultant).	Appoint prior to construction initiation. Maintain permanently during construction and operation.	<p>Appointment of qualified person.</p> <p>Qualifications submitted with first.</p> <p>Relevant report under ESAP item 0.</p> <p>Responsible person maintained at all times.</p>
1.5	<p><u>Develop and implement Contractor/ Subcontractor Management Plan to manage ESHS planning and performance of construction and other contractors, including at a minimum:</u></p> <ul style="list-style-type: none"> <li><u>Inclusion of relevant ESAP requirements in contracts/subcontracts.</u></li> <li><u>Clear assignment of EWK and contractor ESHS responsibilities.</u></li> <li><u>Contractor reports sufficient to allow EWK to include relevant data in reports to Lenders, and to allow evaluation of need for corrective actions.</u></li> <li><u>Verification of training and/or proper credentials for contractor staff/ managers responsible for ESHS</u></li> </ul>	<u>Best Practice EBRD PR1 IFC PS1</u>	<u>Internal resource (or supported by external consultant).</u>	<p><u>Develop/ adopt prior to executing contracts/ subcontracts</u></p> <p><u>Implement: throughout execution of contracts/ subcontracts</u></p>	<p><u>Development, adoption, and implementation of contractor management system ESHS reporting:</u></p> <ul style="list-style-type: none"> <li><u>Report to Lenders on development of policy/procedures</u></li> <li><u>Report ESHS training(s) of contractors/subcontractors</u></li> <li><u>Report status and highlights of contractor oversight</u></li> </ul>
1.6	<p><u>Develop an Environmental and Social Management Plan (ESMP) for the project comprising full details of environmental, social, health and safety performance requirements and obligations for construction, operation and decommissioning of the project. To include detailed timelines for implementation of specific mitigation measures and monitoring activities. ESMP to require detailed construction environmental management plan (CEMP) and associated sub-plans, including those recommended within the ESAP.</u></p> <p><u>Develop and implement the Construction Environmental Management Plan (CEMP).</u></p>	Best Practice EBRD PR1, PR 3, PR4 IFC PS1, PS2, PS4	Internal resource (or supported by external consultant).	Prior to construction initiation. Maintain permanently during construction.	<p>Submission to relevant financial institution (with first report under item 0) of CEMP for review and approval.</p> <p>On-going reporting to relevant financial institution throughout construction phase (in line with ESAP item 0).</p> <p><u>ESMP and CEMP sub-plans will be reviewed and approved by EWK and competent third-party acceptable to Lenders</u></p> <p><u>Plans provided to Lenders for review and no-objection approval</u></p>

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					<u>ESHS reporting:</u> <u>Status of ESMMP and sub-plan review and approval</u>
1.7	Develop and implement a decommissioning strategy that includes a plan for minimising impacts during decommissioning.	Best practice EBRD PR1 IFC PS1	Internal resource.	At end of life of wind farm.	Decommissioning plan submitted to relevant financial institution.
<u>1.8</u>	<u>Actively participate in the Cumulative Impact Assessment project being jointly promoted by the IFC and EBRD.</u>	<u>EBRD PR1</u> <u>IFC PS1</u>	<u>Internal resource.</u>	<u>One-off study starting in Spring 2017.</u>	<u>Provision of commercially non-sensitive documentation and data related to the impact assessment and construction programme.</u>
<b>2</b>	<b>EBRD PR 2 / IFC PS 2: Labour and Working Conditions</b>				
2.1	Develop a formal grievance mechanism for employees and contractors and disseminate information about its uses to the workforce, in the language(s) of the workers. <u>Note: this mechanism is separate from the one for external stakeholders that is part of the Stakeholder Plan under PR/PS 10.</u>	EBRD PR 2 IFC PS 2	Internal resource (or supported by external consultant).	Develop and implement prior to construction and throughout project lifetime.	Submission to relevant financial institution (with first report under item 0) of grievance procedure for review and approval. Thereafter, report to relevant financial institution to include all worker grievances and resolutions.
2.2	Develop and implement an occupational health and safety (OHS) plan to guide all activities on project site during site preparation, construction, and operation. Also require contractor plan/compliance. Requirements to include (but not to be limited to): <ul style="list-style-type: none"> <li>• Job and task specific hazard analysis and controls for all activities;</li> <li>• Mandatory reporting by contractors;</li> <li>• Requirements for and enforcement of PPE use;</li> <li>• Safety training for personnel;</li> <li>• Develop and implement an emergency response procedure;</li> <li>• Review and approval of contractors' OHS plans; and</li> <li>• Maintain statistics of total work hours, lost time, incidents, injuries, near misses etc.</li> </ul>	Best practice EBRD PR 2 IFC PS 2 Serbian Law	Internal resource (or supported by external consultant).	Prior to initiation of contractor activities on-site.	Confirmation of Electrawinds plan by relevant financial institution. Availability of contractor OHS plans approved by Electrawinds or by independent OHS professional. Reports to Bank on OHS issues, statistics and training delivered (in line with ESAP item 0). Reports to Bank on major accidents (in line with ESAP item 0).
2.3	Develop and implement labour and social policies and incorporate into contractual arrangements with employees and contractors – to include terms of employment, skills, dismissal, discrimination, harassment, violations, human rights, forced and child labour, wages and social leave/benefits, health & safety and bribery and corruption	EBRD PR1, PR2 and PR 4 IFC PS1, PS2 and PS4	Internal resource (provided by contractors).	Prior to initiation of contractor activities on-site.	Policies approved by Electrawinds or independent professional. Submission to relevant financial institution (with first report under item 0).

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<b>3</b>	<b>PR 3: Pollution Prevention and Abatement / IFC PS 3: Resource Efficiency and Pollution Prevention</b>				
3.1	Undertake noise monitoring survey at sensitive receptors (i.e. nearby residents) to verify noise levels are acceptable.	EBRD PR2, PR3 and PR4 IFC PS2, PS3 and PS4 Serbian Law	Internal resource (or resourced externally).	Six months following completion of development.	Report on survey with compliance status to relevant financial institution (with first report under item 0).
3.2	Implement management practices for dust abatement as part of the CEMP: <ul style="list-style-type: none"> <li>Watering of roads during dry periods, with priority and increased frequency for road sections nearby residential areas;</li> <li>Define and enforce maintaining speed limits by construction traffic; and</li> <li>Cover loads on trucks to prevent dust generation.</li> </ul>	EBRD PR3 IFC PS3	Internal resource (or resourced externally).	At all times during construction	Report to relevant financial institution on implemented dust control activities (in line with reporting under ESAP item 0).
3.3	Develop and implement a comprehensive waste <b>and hazardous materials management plans</b> to include: <ul style="list-style-type: none"> <li>Procedures for proper handling of all waste generated;</li> <li>Methods to verify proper off-site management of related wastes by contractors;</li> <li>Measures to minimise waste generation and maximise reuse and recycling; and</li> <li>Waste segregation and designated storage locations.</li> </ul>	EBRD PR3 IFC PS3	Internal resource (provided by contractors).	Implemented during construction and operation.	Waste management plan to be approved by Electrawinds or independent professional.  Audit of implementation to relevant financial institution (with report under ESAP item 0).
<b>3.4</b>	<b>Develop and implement emissions control plan for the concrete batch plant (air and water).</b> <b>If this batch plant is operated for the specific purpose of providing concrete to the Kovačica WF then controlled measures will be required irrespective of its location.</b>	<b>EBRD PR3</b> <b>IFC PS3</b>	<b>Internal resource (provided by contractors).</b>	<b>Implemented during construction and operation.</b>	<b>Emissions managed and in compliance</b> <b>ESHS reporting:</b> <b>Report compliance status</b>
<b>3.5</b>	<b>Develop and implement an earthen material management:</b> <ul style="list-style-type: none"> <li><b>Segregate and store in stable piles all topsoil and subsoil salvaged from construction areas.</b></li> <li><b>Store rock in stable piles.</b></li> <li><b>Protect all storage piles with covers, including vegetative cover (native grass species) as needed to prevent wind/water erosion and desiccation.</b></li> <li><b>Use best practices to prevent or retard run-off.</b></li> <li><b>Reinstate all disturbed areas by covering with topsoil and seeding/planting with native species, or returning to tillage.</b></li> </ul>	<b>EBRD PR3</b> <b>IFC PS3</b>	<b>Internal resource (provided by contractors).</b>	<b>Implemented during construction and operation.</b>	<b>Adoption of plan, implementation of best practices, protection of topsoil and stored rock</b> <b>Minimal erosion and loss of topsoil</b> <b>ESHS reporting:</b> <b>Report to Lenders on plan status and highlights of erosion control program</b>

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4	<b>EBRD PR 4 / IFC PS4: Community Health, Safety and Security</b>				
4.1	<p>Develop and enforce implementation by contractors of procedures to protect public health and safety.</p> <p>Procedures to include (but not to be limited to):</p> <ul style="list-style-type: none"> <li>• Traffic management plan for contractors (speed limits, training, traffic routes, avoidance of sensitive areas) – <u>the plan must cover transport of turbines, rock/ stone, and other materials to be brought to or removed from the site;</u></li> <li>• Public notice of construction operations in areas open to the public;</li> <li>• Security as needed to prevent unauthorized access to project locations, with appropriate training for security personnel;</li> <li>• Measures to minimize disruption and closures of public access to grazing areas;</li> <li>• Hazard notices/signs/barriers to prevent access to hazardous project areas; and</li> <li>• Notice to nearby residents and local authorities before major activities and traffic.</li> </ul>	<p><u>EBRD PR4</u> <u>IFC PS4</u></p>	<p>Internal resource (provided by contractors)</p>	<p>Develop procedures: prior to construction initiation.</p> <p>Implement: all the time during construction.</p>	<p>These procedures may be prepared by EWK sub-contractors but EWK must ensure that the procedures are complied with. Submission of procedures to relevant financial institution for review.</p> <p>Public notices, hazard signs, barriers available.</p> <p>Report to relevant financial institution on traffic management, security, other activities, including any incidents / accidents involving the public (in line with report under item 0).</p>
4.2	<p><u>During construction and operation, monitor noise at residences upon request and take actions to reduce or control noise as needed to meet applicable standards. Ensure proper noise controls on vehicles and equipment. When designing the substation, use technology whose specifications ensure that noise standards will not be exceeded.</u></p>	<p><u>EBRD PR4</u> <u>IFC PS4</u></p>	<p><u>Internal resource (provided by contractors)</u></p>	<p><u>Develop procedures: prior to construction initiation.</u></p> <p><u>Implement: all the time during construction.</u></p>	<p><u>Appropriate construction design to minimise noise</u></p> <p><u>On-demand monitoring and mitigation as needed</u></p> <p><u>ESHS reporting:</u></p> <p><u>Report noise complaints, monitoring results, and mitigation measures</u></p>
4.3	<p><u>Set goals for and encourage contractors to hire local workers, with preference for those who may be directly affected by noise, traffic, or other project activities. Commission and implementing a training program to upgrade skills of unskilled local workers as part of the social investment program. Consider providing funding for local students' university education in science and/or engineering disciplines (e.g., ornithology)</u></p>	<p><u>EBRD PR4</u> <u>IFC PS4</u></p>	<p><u>Internal resource (provided by contractors)</u></p>	<p><u>Establish goals: prior to engaging contractors</u></p> <p><u>Commission training program: by financial close</u></p>	<p><u>Significant local hiring, including semi-skilled and skilled workers</u></p> <p><u>Training for local workers</u></p> <p><u>Educational support provided</u></p> <p><u>ESHS reporting:</u></p> <p><u>Report numbers of local vs non-local vs expatriate workers, and skill levels</u></p> <p><u>Report results of social investment program, including for training, education, and other investments that can benefit the project as well as social welfare</u></p>

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<b>6</b>	<b>EBRD PR 6 / IFC PS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources</b>				
6.1	<p>Develop and implement a monitoring programme to ensure mitigation measures remain acceptable prior to construction and to assess the impacts to birds and bats that may be occurring during the operational phase of the wind farm that should include:</p> <ul style="list-style-type: none"> <li>• Appointed responsible independent Ecological Expert (IEE);</li> <li>• Undertaking a series of repeat ornithological surveys to update the baseline information to finalise mitigation measures through consultation with the Institute for Nature Conservation, in addition to completing a final check prior to construction / decommissioning for protected species;</li> <li>• Undertake a preliminary check within and adjacent to the site boundary (prior to construction) in order to determine if any new roosting opportunities for bats have developed since completion of the original surveys;</li> <li>• Undertaken post construction ecological monitoring for an initial period of three years. A review will be undertaken after this initial three period to consider if further monitoring is required. The findings of the review must be shared with, and agreed by the Lenders. Monitoring will be undertaken in all seasons when these species are present;</li> <li>• Undertake bird monitoring throughout the year to include recording the flying height; maximum approach height towards the wind turbines; modifications of any migration routes;</li> <li>• Undertake identification of breeding birds in the area;</li> <li>• Undertake monitoring of species of birds or bats found dead near the wind farm;</li> <li>• Undertake recording of these incidents on databases;</li> <li>• Undertaken monitoring for Saker falcon to further clarify the use of the site by this species in order to identify the turbines which have the potential to result in significant mortalities which can be switched off during critical periods of the annual lifecycle of this species i.e. breeding;</li> <li>• Undertake post construction monitoring of turbine 47 for bats to determine whether bat activity at this location has significantly reduce following the removal of woodland adjacent to the turbine; and</li> <li>• Develop and implement a Site Restoration Plan (SRP) as part of the CEMP to ensure those areas of habitat that have been temporarily lost through development can regenerate.</li> </ul>	<p>EBRD PR6 IFC PS6</p>	<p>Internal resource (and independent Ecological Expert)</p>	<p>Prior to construction and post construction on a monthly basis during all seasons initially for a period of 5 years.</p>	<p>Recorded data submitted to relevant financial institution (in line with report under item 0).</p> <p><u>The Institute for Nature Conservation of Vojvodina Province has required a number of Species Protection Plans to be prepared. These SPPs must include for field surveys and monitoring of birds and bats for a minimum of three years. The Institute is vague about the mitigation actions should any protected species be identified during the survey work: they simply require EWK to "define appropriate mitigation measures during construction and operation". Due to the potentially low impact on birds it does not seem reasonable that "appropriate measures" would include the installation of a radar system. The use of field observers who, in conjunction with the windfarm control room, could selectively turn off WTGs seems more appropriate.</u></p>

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<b>8</b>	<b>EBRD PR 8 / IFC PS 8: Cultural Heritage</b>				
8.1	Appoint and undertake further archaeological investigations / watching brief within identified Zones of Protection. <u>Appoint one or more competent professional(s) to oversee all excavations and other ground-disturbing activities at the WTGs identified by the Institute for Protection of Cultural Monuments. Provide the professional(s) with authority to stop work in case of possible discoveries and ensure that site foremen are aware of that authority.</u>	Best Practice EBRD PR8 IFC PS8 Serbian Law	Internal resource (provided by contractors / independent Archaeological Expert where necessary)	Prior / during to construction	Recorded data submitted to relevant financial institution (in line with report under item 0).
<b>8.2</b>	<u>Develop and implement chance find procedure, train all foremen in its use, including empowerment to stop work. Train/advise workers and foremen of the types of cultural heritage that may be discovered.</u>	<u>Best Practice EBRD PR8</u> <u>IFC PS8</u> <u>Serbian Law</u>	<u>Internal resource (provided by contractors / independent Archaeological Expert where necessary)</u>	<u>Develop: prior to construction</u> <u>Implement: throughout construction</u>	<u>Procedure in place and available for review, training provided to all foremen</u> <u>No cultural heritage removed or lost without appropriate conservation</u> <u>ESHS reporting:</u> <u>Report chance finds and actions taken</u>
<b>10</b>	<b>Information Disclosure and Stakeholder Engagement</b>				
10.1	Review Stakeholder Engagement Plan, including a Grievance Mechanism (SEP)	EBRD PR10 IFC PS1	WSP has developed a SEP for use on this project.	Prior to construction and throughout project lifetime.	SEP document issued to relevant financial institution as part of disclosure package. <u>The SEP must be updated and should include much greater levels of detail. The updated SEP must reflect the expectations of each stakeholder, the means of engagement as well as recording the outcome of each engagement/ communication. The SEP should be a living document and significant improvement is required.</u>
10.2	Implement the agreed SEP, inform stakeholders of activities and possible impacts and receive and respond to grievances.	EBRD PR10 IFC PS1	Internal resource (appointment of project communications manager)	Implement during construction and operation.	Activities undertaken as part of SEP including grievances and response to grievances submitted to relevant financial institution (with first report under item 0).
<b>10.3</b>	<u>In accordance with SEP, provide early notice to villages and residents prior to major increases in traffic or other project activities that could affect them.</u>	<u>EBRD PR10</u> <u>IFC PS1</u>	<u>Internal resource (appointment of project communications manager)</u>	<u>Notice provided: before impacts occur</u>	<u>Affected people given advance notice of changes in impacts</u> <u>ESHS reporting:</u> <u>Report to Lenders highlights of notices</u>