17 June 2016

## Rengy Sarata Solar Project: Environmental and Social Action Plan (ESAP)

No.	Issue/Action	Source of Requirement (National regulation, EBRD PR #, EU, BAT)	Date to be completed / responsibility	Measure of success
1.	Corporate Level and Pre-Construction			
1.1	Monitor project performance, prepare and submit reports on status of ESAP implementation and environmental and social performance, including resolution of grievances, at agreed timescales and for an agreed period.	EBRD PR1	Annually, during and after construction/ Developer	Submission of reports on environmental, occupational health and safety, and social (ESHS) performance, demonstrating that predicted environmental and social effects are being satisfactory managed
1.2	Achieve and maintain environmental and social management systems based on principles of ISO 14001 and OHSAS18001. In case the project is constructed and/or operated by turn-key contractor(s), include the relevant provisions in respective contracts.	Best international management practices PR1	Ongoing/ Developer, General contractor (PEC)	Include in ESHS report the status of environmental and social management systems

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1.3	Obtain all required permits for the new projects and comply with permit requirements, including:  a. Construction permit (Construction Phase)  b. Water use and wastewater discharge (Operation Phase) if required  c. Solid waste disposal (for broken and decommissioned panels)  d. Servitude agreements for the cable lines to the substation	National regulatory requirements PR1	Prior to construction and during operation, as applicable/ Developer	<ul> <li>Identify permits required and received in ESHS reports;</li> <li>Report on compliance in ESHS reports;</li> <li>Report major noncompliance immediately.</li> </ul>

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1.4	Prepare and implement a Stakeholder Engagement Plan (SEP), including a Grievance Mechanism, inform stakeholders of activities and progress, and receive and respond to grievances.	PR10	2016 and throughout project/ Developer	Review and approval of SEP by EBRD  Information disclosure through suitable means in accordance with SEP. Include in ESHS report:  - details on grievances and resolution;  - consultations and other outreach to the community, including authorities
1.5	Develop and implement a corporate social responsibility programme to strengthen community relations	Best international practice	2016 and throughout project/ Developer	<ul> <li>Programme developed, including priority setting and decision making mechanisms;</li> <li>Spending amounts and other details.</li> </ul>
2.	Construction Phase			

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2.1	Establish corporate procedures for oversight of contractor ESHS performance during construction and operation, to include (at a minimum):  - Assignment of clear responsibilities within developer for contractor oversight of the projects;  - Regular inspections/monitoring of sites and contractors' construction camps;  - Contractor reports on issues encountered (if any) sufficient to allow inclusion of data in ESHS reports to the Bank, and to allow developer to determine if corrective actions are needed;  - Verification of training and professional credentials for contractor environmental and OHS managers and staff;  - Security as needed to prevent unauthorised access to project locations, with appropriate training for guards on code of conduct, to be guided by the principles of proportionality, PR4 and Ukrainian law.	Best international management practices PR1 PR2 PR3 PR4	Prior to, and throughout construction and operation/ Developer, General construction (PEC)	<ul> <li>ESHS reports to EBRD on:</li> <li>Procedures description</li> <li>Training (where applicable)</li> <li>Contractor summaries (both at contractor level and compiled project level) in terms of environmental and OHS performance summaries</li> <li>Regulatory compliance</li> <li>Include in ESHS reports to Bank data on performance by developer and contractors (incidents/accidents, etc.)</li> </ul>

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2.2	Prepare and implement construction management plan to mitigate general construction impacts, including:  a. Land erosion prevention be addressed in the design of the site drainage system, as well as careful planning and management of the construction process.  b. Noise monitoring and mitigation (controls on construction hours, vehicles and equipment used, routes and timing for deliveries)  c. Control dust emissions in dry periods by considerate siting and access routes, and where necessary using water or other dust suppression methods on roads and construction areas that may generate dust that could reach off-site;  d. Waste generation, storage and disposal:  Manage all wastes in accordance with applicable laws and regulations;	National regulatory requirements Best international practice PR1, PR2, PR3, PR4	During construction/ General construction (PEC) supervised by the Developer	<ul> <li>Construction management plan prepared by the contractor and approved by developer;</li> <li>Compliance with national requirements and standards;</li> <li>ESHS reports to EBRD</li> </ul>

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2.3	Develop and implement an Occupational Health and Safety (OHS) plan to guide all project-related activities on the project sites during construction and operation to saveguard workers and local community. In case of using turn-key contractor(s) for project construction and/or operation, include the relevant provisions in respective contracts. Requirements to include:  - Job- and task-specific hazard analysis and controls for developer/contractor's activities;  - Provision of Personal Protection Equipment (PPE), requirements for use of PPE, and enforcement of PPE use;  - Safety training for all personnel, covering hazards for their jobs;  - Oversight of contractor OHS implementation, including mandatory reporting;  - Recording incident statistics, including total work hours;  - Compliance of working conditions and labour standards with national and Bank's requirements (PR2)	National requirements Best international practices PR2, PR4	Throughout construction and operation/ General contractor (PEC) supervised by the Developer.	<ul> <li>Regulatory compliance;</li> <li>Inclusion of OHS plan requirement in turk-key contract(s) if applicable;</li> <li>Preparation and implementation of OHS plans;</li> <li>Include in ESHS reports to Bank data on performance by developer/contractors (hours worked, incidents/accidents, lost time, etc.).</li> </ul>

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2.4	Maximise opportunities for local employment and suppliers in project construction and subsequent operation	PR1, PR4, PR10	Prior to, and throughout construction and operation/ Developer, General contractor (PEC)	<ul> <li>Include data on use of local labour and suppliers in ESHS reports;</li> <li>No complaints from local residents.</li> </ul>
3.	Operation Phase			
3.1	Ensure appropriate containment and disposal of wastewater, including sanitary water and wastewater from cleaning the solar modules. Consider use of dry methods / steam machines especially in dry seasons or during water shortages.	National regulatory requirements Best international practices PR3	Throughout operation/ Developer, General contractor (PEC)	<ul> <li>Regulatory compliance;</li> <li>Reduction in the risk of water / land pollution and impacts on the environment.</li> </ul>
3.2	Developer to ensure that the project team has a high level of preparedness for emergencies and major incidents (e.g. explosion, fire, earthquake, etc.), and that an appropriate emergency plans is in place and understood by developer and contractor staff.  Provide regular training to staff	National regulatory requirements Best international practices PR3, PR4	Throughout operation/ Developer, General contractor (PEC)	Potential major incidents identified and avoided through emergency planning; if major incidents occur, these are handled according to the planned procedures.

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3.3	As soon as construction is complete, level the land surface and plant native species of grass and/or shrubs where possible. Maintain full vegetative cover over as much of the surface as possible. Do not use herbicides or insecticides to manage vegetation. Manage the vegetation in a way to avoid dry-up and fire hazards.	Best practices PR6	End of construction/ General contractor (PEC) supervised by the Developer	Establishment and maintenance of vegetative cover (where feasible)
4.	Decommissioning Phase			
4.1	Ensure recycling and appropriate disposal of PV modules at the end of their lifetime.	Best international practices	Prior to, and during the decommissioning phase/ Developer	Recycling plan prepared and implemented. Become a member of international PV recycling network if required
4.2	Prepare and implement a decommissioning plan to dispose off any waste, residues or used equipment in an environmentally sound manner.	Best international practices PR1, PR3	Prior to, and during the decommissioning phase/ Developer	Decommissioning plan prepared and implemented