

KHELEDULA-3 HYDROPOWER PROJECT

ENVIRONMENTAL AND SOCIAL ACTION PLAN

Abbreviations:

EBRD: European Bank for Reconstruction and Development

E&S: Environmental & Social

ESIA: Environmental and Social Impact Assessment

HSEMP: Health, Safety and Environmental Management Plan

ESHS: Environmental, Social, Health & Safety

ESMS: Environmental & Social Management System

KE: Kheledula Energy LLC

PR: Performance Requirements (as defined by EBRD's Environmental and Social Policy)

SEP: Stakeholder Engagement Plan

SP: Supplementary (ESIA) Package

Mentions of Year 1, Year 2, etc refer to the calendar year (Jan 1st to Dec 31st) starting after the financing agreement with EBRD is signed (Year 0).

No.	Action	Environmental & Social Risks	Requirement (Legal, EBRD, Good Practice)	Resources, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation
PR1	Assessment and Management of Environmental and Social Impacts and Issues					
1.1	ESHS manager: Assign within KE one person to be responsible for the implementation of the ESAP and of the Environmental, Social, Health and Safety requirements of the Georgian legislation (including the ESIA and Environmental Permit requirements). The ESHS Manager will directly report to the General Manager of KE.	E&S requirements implementations	Georgia law EBRD PR1	KE management	Before the beginning of construction activities	Responsibility assigned to a suitably qualified person. Name and contact of the responsible person provided to EBRD.
1.2	ESMS: construction period Establish an ESMS, aligned with relevant ISH and OHSAS standards, for the implementation of the pre-construction and construction activities.	E&S management system	EBRD PR1 Good Int. Practices	KE ESHS manager, eventually with support from a consultant	Before the beginning of construction activities	ESMS established and run by the ESHS manager Third party confirmation of ISO alignment

No.	Action	Environmental & Social Risks	Requirement (Legal, EBRD, Good Practice)	Resources, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation
1.3	ESIA, Environmental Permit and Supplementary ESIA Allocate to KE or to the contractors the responsibility to implement each of the pre-construction, construction and operation measures required by the ESIA, the Environmental Permit, and Supplementary ESIA (including the biodiversity action plan, the social action plan and the H&S action plan. Organize/monitor their effective implementation	E&S requirements implementations	Georgia law	KE ESHS manager	As required by the ESIA, the Environmental Permit, and Supplementary ESIA.	ESIA, Environmental Permit, and Supplementary ESIA measures allocated to KE and contractors, and implemented.
1.4	Permits and authorizations: Obtain and maintain all necessary environmental, social and health& safety permits and authorizations required for the Project.	Compliance with regulatory requirements	Georgia law	KE ESHS manager	As required by national regulations in the timeframe required.	Permits and authorizations obtained and maintained.
1.5	E&S internal monitoring: Monthly internal reporting by the ESHS manager confirming the effective implementation of the ESAP actions and ESIA/Environmental Permit requirements.	E&S obligations implementation	Georgia law EBRD PR1	KE ESHS manager	During the entire disbursement period	Monthly reports issued internally.
1.6	E&S Reporting to EBRD Report to EBRD on: <ul style="list-style-type: none"> • Implementation status of the ESAP • Environmental and social performance of the project activities 	Monitoring	EBRD PR1	KE ESHS manager, based on a template provided by EBRD	Every six month during construction Every year after construction, until the end of the financing agreement	Reports submitted to EBRD and approved
1.7	ESMS: operation period Develop and run an integrated certified management system (ISO9001 – ISO14001 – ISO26001 and ISO 45001) for KE.	E&S management system	EBRD PR1 Good Int. Practices	KE ESHS manager, eventually with support from a consultant	Preparation: before operation Implementation and certification: during operation	ESMS prepared, implemented and certified. Certification maintained.

No.	Action	Environmental & Social Risks	Requirement (Legal, EBRD, Good Practice)	Resources, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation
1.8	Contractors HSEMP Review, approve and monitor the effective implementation of the Health, Safety and Environment Management Plan (HSEMP) of each contractor. Get contractors to prepare and implement corrective actions for all non-compliances notified by KE or the lenders.	Compliance with applicable requirements	Georgia law EBRD PR1	KE ESHS manager	Prior to and throughout construction	HSEMP prepared and implemented by contractors, approved and monitored by KE
1.9	Corporate Social Responsibility Develop and implement a Community Support Plan in co-operation with local stakeholders and authorities and with the involvement of the internal stakeholders (employees/workers), with a focus on positive impacts on the local economy.	Community support	EBRD PR1	KE ESHS manager	Prior to and throughout operation	Community Support Plan prepared before operation, and implemented during operation
PR2	Labour and Working Conditions					
2.1	Local employment Develop a local content plan and HR policies for recruitment in line with PR2. Monitor local employment based on data provided by contractors.	Local employment	EBRD PR2 Good International Practices	KE ESHS manager	Prior to construction	Local employment figures monitored and reported to EBRD through the regular 6-month reports.
2.2	Human Resources Policy Prepare and appropriately communicate to employees an HR policy meeting Georgian legislation and EBRD PR2 requirements.	HR policy	EBRD PR2 Good International Practices	KE management	Prior to operations	HR policy disclosed
2.3	HR audits: Conduct quarterly audits of contractors staff to verify that people working on the worksite are legally hired in line with PR2. Pre-construction and monthly inspect the workers accommodation with reference to EBRD guidance note for workers accommodation.	Labour code	EBRD PR2 National legislation	KE ESHS manager	Prior to and during construction	HR audits and inspections carried out, and non compliance addressed.

No.	Action	Environmental & Social Risks	Requirement (Legal, EBRD, Good Practice)	Resources, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation
2.4	Workers accommodation Design, lay out and operate workers camps in line with EBRD's Worker Accommodation Guidance Note	Workers accommodation	EBRD PR2	Contractors, on KE's request	prior to the construction period	Requirement included in requirements to contractors Monitoring of the effective implementation of the guidance note by KE
PR3	Resource Efficiency and Pollution Prevention and Control					
3.1	Solid waste management Prepare and implement a waste management plan for the HPP, distinguishing (i) domestic waste, (ii) industrial waste and (iii) wood waste (from the river)	Waste management	Georgia law EBRD PR3	KE ESHS manager	Preparation: before operation Implementation: during operation	Plan prepared and implemented
3.2	Ban the use of herbicides/pesticides Ban the use of herbicides or pesticides during the construction and operation period.	Pollution control	EBRD PR3	KE internal Resources	During construction and operation	No use of pesticides / herbicides
3.3	Oil consumption Hold an account of the volumes of oil (for turbines, hydromechanical and electromechanical equipment) purchased, recycled and disposed. Include oil consumption in the ISO 14001 system.	Pollution prevention	EBRD PR3	KE ESHS manager	During operation period	Oil and waste oil volumes monitored, pollution identified and corrective actions taken through the ISO 14001 continuous improvement.
3.4	Water quality monitoring: Perform water quality monitoring in the powerhouse tailrace, before convergence with Tskhenistskali. Parameters: temperature, pH, turbidity, nitrates, phosphates, heavy metals, chemical oxygen demand, oil and petrochemicals.	Water quality control	EBRD PR3	KE ESHS manager	During operation period, twice a year, April and September	Monitoring done, and results disclosed on the website

No.	Action	Environmental & Social Risks	Requirement (Legal, EBRD, Good Practice)	Resources, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation
PR4	Health and Safety					
4.1	Contractors health & safety management For the Project, contractors are required to: <ul style="list-style-type: none"> - Appoint a HSE (Health Safety Environment) manager - Include in their offers HSE management plan that complies with Georgian legislation and the E&S EBRD policy, including as a minimum the content described in the Supplementary ESIA for this HSEMP. 	Health and safety management	Georgia law EBRD PR4	Contractors, on KE's request	prior to the construction period	Requirement included in tender documentation HSE management plans submitted by contractors for approval by KE. Monitoring of the effective implementation of the HSE plans by KE
4.2	Workers HSE induction Provide an induction HSE training to all workers involved in the Project: <ul style="list-style-type: none"> - HSE rules applicable to worksites (with reference to action 4.1) - awareness raising training about risks related to snakes and ticks: preventive actions, personal protection equipment, bites management, and first aid actions in case of bites. - biodiversity protection (see action 6.1) 	Workers protection	EBRD PR4	Contractors, on KE's request	During construction period. Workers trained during their induction training.	Workers trained, log of trainings held.
4.3	Workers health and safety Undertake an H&S risk assessment. Keep an annual record of all H&S statistics involving workers and related to the Project activities. Hold statistics on the causes of the accident, age and gender of the victims, degree of gravity (including near miss), quality of the victim, and location of the accident. Share these statistics with KE and continuously improve the OHSMS.	Workers protection	EBRD PR4	Contractors, on KE's request	During construction	Statistics held and reported in regular reports to EBRD.

No.	Action	Environmental & Social Risks	Requirement (Legal, EBRD, Good Practice)	Resources, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation
4.4	<p>Public health and safety</p> <p>Keep an annual record of all H&S stats involving members of the public and related to the Project activities. Hold statistics on the causes of the accident, age and gender of the victims, degree of gravity, quality of the victim, and location of the accident. Use these statistics to continuously improve public safety.</p>	Public protection	EBRD PR4	KE ESHS manager	Starting from Year 0 and for the entire financing agreement duration	<p>Statistics held and reported in regular reports to EBRD.</p> <p>Risk mitigation actions undertaken on the basis of the statistics.</p>
4.5	<p>Tsanashi river debris cleaning</p> <p>Support Tsanashi community with mechanical means (e.g. excavator) together with artificial flushing in order to facilitate the removal of debris that accumulate in Tsanashi River lower bed and at the confluence with Kheledula River.</p>	Public protection & community support	Good practice	KE ESHS manager with the participatory monitoring of the interested Tsanashi citizen.	During construction and operation	Tsanashi lower riverbed and confluence maintained clean from debris accumulations.
4.6	<p>Emergency prevention and management plan:</p> <p>Prepare an emergency prevention and management plan, including actions to prevent emergencies (safety signage around the site for the public) and managing emergencies during both construction and operation</p>	Emergency preparedness	Good practice EBRD PR4	KE ESHS manager	Before construction	<p>Plan prepared and submitted to EBRD.</p> <p>Plan reviewed (and, if needed updated) annually</p>
PR6	Biodiversity and Living Natural Resources					
6.1	<p>Fauna protection</p> <p>Include in the workers induction (see 4.2) training an awareness raising training about wildlife conservation in Georgia, with a focus on (i) the conservation of reptiles, amphibians and aquatic biodiversity and (ii) the strict interdiction to poach.</p>	Biodiversity protection	Georgia law EBRD PR6	Contractors, on KE's request	During construction period. Workers trained during their induction training.	Workers trained

No.	Action	Environmental & Social Risks	Requirement (Legal, EBRD, Good Practice)	Resources, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation
6.2	Biodiversity Management Plan: Prepare a Biodiversity Management Plan (BMP) - a compilation of all objectives and actions related to managing biodiversity risks as per the Biodiversity Action Plan in the SP.	Biodiversity management	EBRD PR1 Good Int. Practices	KE ESHS manager, with support from a consultant	From the beginning of the Project	BMP prepared and implemented
6.3	Fish path detailed design review: Review of the final fish path designs (weir 1 and 2) by a fish path expert, including: downstream connection to the river, steps and rest pools, upstream connection through the weir.	Ecological continuity	EBRD PR6	Fish path expert	During detailed design, before construction.	Design of the two fish paths approved.
PR8	Cultural Heritage					
8.1	Chance finds : Prepare a chance find procedure for the project in line with EBRD PR8 (see template in the Supplementary ESIA). Train workers on the nature of potential chance finds, and the way to manage them.	Cultural heritage protection	Georgia law EBRD PR8	Contractors, on KE's request	Procedure prepared before works start. Workers trained during their induction training.	Procedure prepared. Workers trained and training records provided.
8.2	Kheledi Church: Monitor the erosion of the slope below Kheledi Church, and implement measures to control this erosion.	Cultural heritage protection	EBRD PR8	KE	Monthly visual inspection (pictures) Erosion control measures defined and implemented.	Erosion controlled. Erosion control documented.
PR10	Information Disclosure and Stakeholder Engagement					
10.1	Stakeholder Engagement Plan Implement the Project's Stakeholder Engagement Plan, including the grievance mechanism.	Stakeholders information and awareness raising	EBRD PR10	KE ESHS manager	According to the SEP's timetable	SEP implemented

No.	Action	Environmental & Social Risks	Requirement (Legal, EBRD, Good Practice)	Resources, Responsibility	Timetable	Target and Evaluation Criteria for Successful Implementation
10.2	Environmental information disclosure Disclose on the company website the E&S parameters or information of public interest: - aquatic biodiversity monitoring - real time environmental flow - weather parameters - information for kayakers	Information sharing	EBRD PR10	KE ESHS manager	During operation	E&S information disclosed
10.3	Information sharing with the transmission line developer: KE will share the baseline biodiversity data of the Project with GSE, and will exercise best efforts to influence design and construction activities regardless to its source of financing	Best effort to inform associated facilities developers	EBRD PR10	KE ESHS manager	At financial close	Biodiversity baseline information shared with GSE.