

ACWA Power: Sirdarya CCGT, Uzbekistan
Environmental and Social Action Plan (ESAP)

No	Action	Environmental Risks, Liability/ Benefits	Legislative Requirement / Lender Requirements / Good practice	Investment Needs / Resources Costs	Timetable Action Due Date	Target and Evaluation Criteria for Successful Implementation	Comment
PR1	Assessment and Management of Environmental and Social Impacts and Issues						
1.1	Health, Safety, Security and Environment (HSSE) Policy The Project shall produce an HSSE Policy, based on ACWA Power's existing HSSE Policy; and fully aligned with the Lender Requirements: EBRD Performance Requirements and IFC Performance Standards. The Policy shall be signed by the Project Executive Managing Officer / CEO; displayed on-site at all times; and appended to the Project's supporting Environmental & Social Management Plans.	Management of HSSE risks in accordance with Lender Requirements.	Good Practice EBRD: PR1 IFC/MIGA: PS1	Internal Costs.	Prior to Financial Close.	HSSE Policy submitted to Lenders.	The requirements of the Project HSSE Policy shall be contractually cascaded to the EPC and O&M Contractors; and implemented throughout the Project.
1.2	Environmental, Health & Safety and Social (EHSS) Contractor Requirements Incorporate the requirements for EHSS management (environmental, health and safety and social, including HR and GBVH policies), as well as ESIA recommendations generally, as part of contract documents. Conduct periodic inspection of contractors' EHSS performance.	Ensure that all aspects of the company operation, including those delivered by sub-contractors are in compliance with the Lender Requirements to avoid causing social disruption, environmental damage or harm to employees and the public.	Good Practice EBRD PR1 / PR2 IFC / MIGA PS1 / PS2	Internal costs and resources. Liaison with contractors.	On-going and upon appointment of contractors	Sub-contractor clauses setting out requirements for performance with respect to environmental, H&S, labour and HR policies of the Company are developed and included in the tender documentation. Results of Risk Assessment for Contractors and sub-contractors.	The Client should ensure that the Project- and Lender Requirements are fully cascaded through the EPC Contractor and other Sub-contractors. In particular, the EPC and Sub-contractors should comply, and implement as required: <ul style="list-style-type: none"> ▪ EHS Management System; ▪ HSSE Policy (ESAP Item 1.1); ▪ HR Policy (ESAP Item 2.1); ▪ GBVH Policy (ESAP Item 2.2); and ▪ ESAP commitments generally.

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1.3	National Permits, Licences, Consents & Authorisations Obtain the necessary outstanding permits prior to commencements of activities for which the permits are required. These shall be inclusive of, but not limited to: <ul style="list-style-type: none"> Construction Permit(s) (following camps plan submission); Permit(s) for stationary air pollution sources; Permit(s) for water use; Permit(s) of temporary and permanent land use; and Permit(s) for use of foreign workers. If there are any design changes, obtain the necessary permits again prior to commencements of activities for which the permits are required.	Compliance with the Republic of Uzbekistan regulatory requirements.	Legislative Requierments EBRD: PR1/PR3/PR4 IFC/MIGA: PS1	Internal costs, part of project delivery.	Prior to 1 st Disbursement	Obtain National EIA Authorisation (OVOS).	The National EIA process is ongoing. Other permits will be obtained after contractor determination (e.g. emissions permit, temporary land acquisition).
					Prior to activities for which authorisations are required; particularly commencement of construction activities.	Checklist of all required permits required for the Project, construction- and operational-phases, included within the Project's Management System (see ESAP Item 1.7. Correspondence with regulatory bodies and copies of all applicable permits and certificates. Provide confirmation in reports to EBRD. Advise EBRD in advance of any design changes and associated material E&S impacts.	
1.4	Enviromental, Health & Safety, and Social (EHSS) Incident Reporting Procedure Establish an EHSS)Incident Reporting Procedure (or equivalent) to maintain records of monitoring, accidents and incidents (including near-misses). Procuedure must include and auditable investigation procedure, including Corrective Action Reporing (CAR) system. The procedure must be overarching, unique and fully integrated into the Project and for contractors located on site.	Reporting of EHSS incidents, to inform ongoing improvement.	Good Practice EBRD: PR1/PR4 IFC/MIGA: PS1	Internal costs.	Prior to commencement of construction.	Format for EHSS Reports, including reporting of incidnets and near-misses, to be submitted to the Lenders for agreement.	Include requirement for reporting in project documents (e.g. EPC Contract).
					Monthly	EHSS Reports submitted to Lenders	

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1.5	Influx Management Plan Given the estimated peak workforce (>2,000 workers); and probability of significant influx into the local communities; the Project shall prepare an <i>Influx Management Plan</i> , in accordance with IFC Publication, <i>Projects and People: A Handbook for Addressing Project-induced In-migration</i> .	Manage the potential impacts arising through worker influx	Good Practice EBRD: PR1/PR 2/ PR4 IFC/MIGA: PS1/PS 2/PS4	Management time and internal cost. External consultants if required. Coordination with EPC Contractor. Liaison with external stakeholders as required.	Prior to commencement of construction.	Submission of Influx Management Plan to Lenders; including summary of how the identified mitigation / interventions have been integrated throughout the Project.	Influx management interventions should be integrated throughout the Project, including: <i>HR Management Plan</i> ; <i>Stakeholder Engagement Plan</i> ; and <i>Security Plans</i> .
1.6	Workers Accommodation: Design and Gap Analysis Workers accommodation facilities should be designed to meet regulations; and, <i>Workers' Accommodation: Processes and Standards; A guidance note by IFC and the EBRD, September 2009.</i> The plan should also detail prioritisation of workers for housing on the worker accommodation site; and also, integrate with the COVID-19 Risk Assessment (see ESAP Item 4.1); for instance, process for isolation of high risk workers; quarantine etc.	Ensure safety and wellbeing of workers. Minimise risk of incidents, and accidents. Minimise risk of social conflicts.	Good Practice EBRD: PR1/ PR2 IFC/MIGA: PS/ PS2	Part of project implementation – Contractor's own resources. Project Company supervision and ultimate accountability for compliance. External consultant support if required.	Prior to commencement of construction works.	Submission of Workers Accommodation Plan , which shall demonstrate compliance of the design and provision of facilities to be aligned with the Lenders Requirements. Record of internal and external (by the Engineer and Supervising Consultant) inspections. Record of grievances. Feedback from workers.	Accommodation camps to be subject to quarterly inspection by the Project Company; and also, monitoring by the Lenders Advisors through construction phase. First inspection to be within 3 months of commencement of construction, and Project Company to submit memo confirming findings related to compliance. Project Company shall also audit community accommodation used to house expatriate workers. Findings are presented to the Lenders on an ongoing basis.

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1.7	Environment, Health & Safety Management System Establish and Implement Environmental, Health & Safety (EHS) management system on ISO 14001 and ISO 45001. The EHS Management System shall be prepared to cover the construction-, commissioning- and operational-phase of the Project. The CESMP, CoESMP and OESMP will include plans, procedures, checklists, etc. as required to ensure adequate implementation of the ESMS. The anticipated suite of Management Plans are provided under the ESIA Volume 3, and include: (i) waste management plan; (ii) occupational health and safety plan; (iii) emergency preparedness and response; (iv) hazardous materials handling and storage; (v) environmental monitoring plan; (vi) traffic management plan; (vii) security management plan; and (viii) chance find procedure.	The procedures for critical environmental, occupational and social issues are implemented to improve the management and performance; whilst reduce residual risks.	Good Practice EBRD: PR1/PR 2 IFC/MIGA: PS1/PS2	Prepared by Project Company (internal cost); with optional external consultant support.	Prior to commencement of Construction	Project-level EHS Management System, submitted to Lenders.	At the point of commissioning, the Project should have a management system established to assist with the operations.
				Prepared by EPC Contractor, with review and approval by Project Company.	Prior to commencement of Construction.	Construction-phase Environmental & Social Management Plan (CESMP) submitted to Lenders, reviewed and approved.	This can include a 'Commissioning-phase Environmental and Social Management Plan (CoESMP)' to bridge the construction- and operational-phases of the Project. The Environmental, Health & Safety Management System should be based on the requirements of ISO14001 and ISO45001.
				Prepared by EPC Contractor, with review and approval by Project Company.	Prior to commencement of Commissioning	Commissioning-phase Environmental & Social Management Plan (CoESMP) submitted to Lenders, reviewed and approved.	
				Prepared by O&M Contractor, with review and approval by the Project Company.	By Early Power Period Commissioning	Operational-phase Environmental & Social Management Plan(OESMP) submitted to Lenders, reviewed and approved	
				Managed by Project Company, in coordination with O&M Contractor.	Within 2 years of Complete Project Commissioning	Certification of EHS Management System to ISO45001 and ISO14001.	Within 2 years of operation, the management system shall be certified to both ISO14001 and ISO45001.

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1.8	Quarterly Construction Monitoring The Project shall be subject to independent audits of construction activities by Environmental, Health and Safety, Social, and Labour (EHSS) specialists.	Prevention of damage to environment, accidents prevention, ensuring adequate labour working conditions, cooperation with administration. Supervision of implementation of environmental consent decisions for construction works.	Good Practice EBRD: PRs IFC/MIGA: PSs Labour Regulations Environmental Regulations Environmental Consent	Cost of Independent Environmental & Social Consultant,	During Construction	Audit reports to be provided to Lenders. (In addition to regular monthly monitoring reports).	The Consultant shall have demonstrable experience in auditing CCGT project to International Lender Requirements. The proposed Consultant shall be reviewed and approved by the Lenders, prior to instruction.
1.9	6 Monthly Operational Monitoring for 1st Year The Project shall be subject to independent audits of operation activities by Environmental, Health and Safety, Social, and Labour (EHSS) specialists.	Confirm how the plants operational impacts and risks are being managed,	Good Practice EBRD: PRs IFC/MIGA: PSs Labour Regulations Environmental Regulations Environmental Consent	Cost of Independent Environmental & Social Consultant,	During Operation, every 6 months for the first year and annually thereafter.	Audit reports to be provided to Lenders. (In addition to regular annual reporting)	The Consultant shall have demonstrable experience in auditing CCGT project to International Lender Requirements. The proposed Consultant shall be reviewed and approved by the Lenders, prior to instruction.
1.10	Health & Safety and Environmental (HSE) Management and Supervision Staffing Plan Project Company and EPC Contractor to appoint suitably qualified HSE Managers to be based on site during the construction phase. As a minimum, this should be in line with the EPC Contract.	Ensure that suitably qualified resources are available to manage HSE risks throughout construction.	Good Practice EBRD: PR1/PR2 IFC/MIGA: PS1/PS2	Internal Cost (part of Project implementation).	Prior to commencement of construction	Proposed management staff CVs to be provided to Lenders, including confirmation of number of HSE dedicated roles. Details of HSE supervisors, as a ratio to the construction workforce, also to be aligned with industry best practice and submitted to Lenders for approval.	In the appointment of HSE staff, the Project Company should demonstrate that sufficient resourcing has been allocated to manage construction risks at the Project. Recruitment of HSE Managers must also take into account language abilities; and the need to effectively coordinate and interface across multiple languages (Project Company, Chinese EPC, and local workers).

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PR2	Labour and Working Conditions						
2.1	Human Resource Policy Project to develop Human Resources (HR) policies and procedures to ensure that rights of employees are protected in accordance with the Uzbekistan Labour Code and Lender Requirements.	Employee awareness about their rights.	Uzbekistan Labour Code EBRD: PR2 IFC/MIGA: PS2	Internal Costs.	Prior to Financial Close.	HR Policy Statement which all employees have access to.	Key PR2 / PS2 requirements will apply to EPC and O&M Contractors and all sub-contractors, and need to be cascaded down across the client's contracting chains.
2.2	EPC Contractor Staff Human Resource (HR) Management The EPC Contractor shall appoint a HR Manager to coordinate with the Project Company and ensure that all aspects of EPC (and Supply Chain) HR Management are aligned with the Lenders' Requirements.	Ensure that HR Management remains aligned with the Project Company, and Lenders, Human Resource policy and amangement requirements.	EBRD: PR2 IFC/MIGA: PS2	Internal Costs.	Prior to commencement of construction.	EPC HR Manager CV provided to Project Company for approval and notification to the Lenders.	-
2.3	Gender-based Violence & Harassment (GBVH) Policy Develop and implement a sexual harassment policy to prevent and address any form of violence or harassment, including any form of gender based violence or harassment (GBVH). Training on this policy will be provided to all employees and contractos. Human resources personnel will also be trained on how to respond to incidents of GBVH.	Protection of workers and project stakeholders from GBVH risks; and clearly aligning the project's GBVH policy with EBRD Requirements.	Good Practice EBRD: PR 1 / 2 / 4 IFC/MIGA: PS 1 / 2 / 4	Internal Costs.	Prior to Financial Close.	GBVH Policy which all employees have access to. <ul style="list-style-type: none"> ▪ Grievance Mechanisms (community and employee); which should include confidential means of raising allegations of GBVH. ▪ The Stakeholder Engagement Plan (SEP) (ESAP Item 10.1) ▪ Influx Management Plan (ESAP Item 1.5), which will need to cover engagement with women in the community and law enforcement around GBVH and other risks linked to worker influx. 	The GBVH Policy should be incorporated across the Project; and in particular:

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2.4	Employee Code of Conduct Develop an employee Code of Conduct, and include within induction training for all project staff. The Code of Conduct should inform workers of local rules, etiquette and cultural sensitivities; and set out expectations relating to potential anti-social behaviour (alcoholism) and the Project's GBHV Policy (ESAP Item 2.2)	Reduced incidents between workers and the local communities; including risk of GBHV incidents.	EBRD: PR 2 IFC/MIGA: PS2	Internal Costs. Coordination with EPC and O&M Contractors.	Include within Staff Induction, which shall be implemented on an ongoing basis throughout the Project.	Records of induction materials; and register of induction completion by Project staff, including sub-contractor staff.	-
2.5	Worker Grievance Mechanism Ensure that the Project Company Grievance Mechanism is extended / cascaded across all workers involved in the Project, including the EPC Contractor and their Sub-contractor staff.	Provide a channel for raising workers' concerns and a transparent, consistent mechanism for resolution.	EBRD: PR2 IFC/MIGA: PS2	Internal costs and resources.	Prior to Commencement of Construction.	Adoption of Grievance Mechanism allowing anonymous complaints and suggestions. Register of grievances and suggestions, and their resolution. Grievance and suggestion boxes available across the sites.	The Grievance Mechanisms shall formally allow for anonymous complaints and suggestions. Ensure suggestion/grievance boxes are available on the site. Provide printed out blank forms next to the boxes to facilitate and encourage communication.
2.6	Labour Risks in Supply Chain During the procurement process, put in place a mechanism for checking the presence/absence of child labour, forced labour and high risks of significant safety issues, in the production of core materials and equipment.	Minimise risk of child labour and forced labour being used in a core supply chain.	EBRD: PR2 IFC/MIGA: PS2	Internal costs and resources.	Prior to EPC Contract finalisation.	Specific tender clauses on the exclusion, and definition, of 'forced' and 'child' labour; together with requirements to undertake Supply Chain Risk Assessment ; monitoring; and verification.	The assessment of labour risk during the tender process should be documented and made available for review upon request by the Lenders. For example, if equipment is produced outside the EU, as part of the tendering process request relevant information relating to prevention of child labour and forced labour at the production facilities.

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2.7	<p>Employment Policy Document (EPD)</p> <p>Develop an <i>Employment Policy Document</i> (EPD) for construction phase</p> <p>The EPD document should build upon the <i>Human Resource Policy</i> (ESAP Item 2.1) and <i>GBVH Policy</i> (ESAP Item 2.2), and will address:</p> <ul style="list-style-type: none"> ▪ Working conditions ▪ Terms of employment ▪ Informing workers about their rights ▪ Child Labour ▪ Forced labour ▪ Equal Opportunities/non-discrimination ▪ Workers organisations ▪ Workers accommodation Regulations and Workers' accommodation: processes and standards; (A guidance note by IFC and the EBRD, September 2009) ▪ Occupational Health and Safety ▪ Grievance mechanism for all workers on the project site. <p>The EPD should include targets and procedures for recruitment of local workers where possible.</p> <p>In addition to the above, the EPD will summarise the estimated no. of workers working under National Minimum Wage; and whether the Project has voluntarily adopted a '<i>Living Wage</i>' for workers.</p>	<p>Ensure cascading of core PR2 / PS2 requirements through the contracting chain, and to ensure ongoing monitoring of - and reporting on performance of the EPC Contractor, and all sub-contractors.</p>	<p>National Legislation</p> <p>Good Practice</p> <p>EBRD: PR2</p> <p>IFC/MIGA: PS2</p>	<p>EPD development - Management time of Project Company, or 'external experts' fee.</p> <p>Internal Costs of the Project Company, to audit the EPC Contractor's compliance with the EPD.</p>	<p>Prior to commencement of the construction activities.</p> <p>To be submitted together with the Construction Environmental & Social Management Plan (CESMP) (See ESAP Item 1.6).</p> <p>Within 3 months of commencement of construction.</p>	<p>EPD is developed, and approved by Lenders before the start of construction works.</p> <p>Implementation of EPD to be subject to periodic review and monitoring by Supervising Consultant.</p> <p>First EPD implementation report – including an audit findings - to be submitted to Lenders.</p>	<p>Following the reduction in capacity, and modernisation works at the adjacent Sirdarya Thermal Power Plan (TTP); it is estimated that approximately 2,000 staff may lose their jobs.</p> <p>Therefore, the Project Company will coordinate with Sirdarya TPP and the local administration to engage suitably qualified employees who will be let go from the plant.</p> <p>The principle of preferential recruitment of former Sirdarya TPP staff shall be fully integrated within the EPD; as well as prioritisation of locally procured services.</p> <p>Compliance with the EPD, including verification of the Project Company's internal auditing and reported findings, will also form part of the IESC Monitoring (see ESAP Item 1.8).</p>

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2.8	EPC Contractor Staffing Plan The EPC Contractor shall develop a staffing plan, detailing the projected workforce throughout construction, including the number of staff at various skills levels. The Staffing Plan should fully apply the principles set out under the EPD.	Management potential adverse risks; as well as opportunities for local employment and training; resulting from the construction phase workforce requirement.	EBRD: PR 2 IFC/MIGA: PS2	Internal Costs of the Project Company, in ensuring that this is completed by the EPC Contractor.	Prior to commencement of construction.	Staffing Plan – reviewed and approved by the Project Company – to be submitted to the Lenders for review.	The staffing plan shall demonstrate that opportunities for local employment, including opportunities for staff development/training, have been fully integrated within the EPC Contractor Staffing Plan.
PR3 Resource Efficiency and Pollution Prevention and Control							
3.1	Continuous Ambient Air Quality Monitoring & Meteorological Station Nitrogen dioxide diffusion tube monitoring at 10 no. locations; and monthly tube changes. Locations should be selected to be representative of potential exposure to emissions.	Management and verification of potential air quality risks, in order to demonstrate that impacts are in line with ESIA projections and within acceptable thresholds (National Thresholds and Lender Requirements).	EBRD PR 3 IFC/MIGA: PS3	Internal costs of the Project Company; together with external consultant support.	Prior to commencement of construction. 1 year prior to Early Power Commercial Operation Date. Project Commercial Operation Date.	Develop an Air Quality Monitoring Plan which sets out locations and methodology. Submit plan to Lenders for review. Commence Ambient Air Quality Monitoring in line with plan. Include findings within Lender reporting. Upon Project COD, continue monitoring for a period for 2 years. Include findings within Lender reporting.	

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3.3	<p>Best Available Techniques (BAT): Associated Emission Limits (AEL), NOx and CO</p> <p>The project must comply with the AELs for NOx and CO, as set out under the <i>Best Available Techniques (BAT) Reference Document for Large Combustion Plants</i> (BREF).</p> <table><tr><td></td><td colspan="2">AEL (mg/Nm³)</td></tr><tr><td></td><td>Yearly</td><td>Daily</td></tr><tr><td colspan="3">Early Power Commerical Operation Date (Open-Cycle Operation)</td></tr><tr><td>NOx</td><td>35*</td><td>50*</td></tr><tr><td>CO</td><td><40*</td><td>-</td></tr><tr><td colspan="3">Project Commecial Operation Date (Combined-Cycle Operation)</td></tr><tr><td>NOx</td><td>30*</td><td>40*</td></tr><tr><td>CO</td><td><30*</td><td></td></tr></table> <p>* AEL subject to correction factor, taking into account Net Electrical Efficiency. See BREF for guidance.</p>		AEL (mg/Nm ³)			Yearly	Daily	Early Power Commerical Operation Date (Open-Cycle Operation)			NOx	35*	50*	CO	<40*	-	Project Commecial Operation Date (Combined-Cycle Operation)			NOx	30*	40*	CO	<30*		Control of air emissions and associated impacts arising from the Project.	Best Available Techniques EBRD: PR3 IFC/MIGA: PS3	Part of project implementation,	Pre-Financial Close	Written statement provided to Lenders to demonstrate BAT AEL compliance has been integrated within the Project and fully considered and costed throughout the project’s operation by the Client.	Following Project Commerical Operation Date, the Project shall operate in combined-cycle; and combined-cycle AELs shall apply for the duration of the Project’s operation.
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3.4	<p>Best Available Techniques (BAT): Net Electrical Efficiency</p> <p>The project must comply with BAT Net Electrical Efficiency, as follows:</p> <ul style="list-style-type: none">▪ Early Power Commercial Operation Date (Open-cycle Operation): >36%▪ Project Commercial Operation Date (Combined-cycle Operation): >57%	Ensure efficient resource consumption and power generation.	Best Available Techniques EBRD: PR3 IFC/MIGA: PS3	Part of project implementation,	Pre-Financial Close	Written statement provided to Lenders to demonstrate BAT Net Electrical Efficiency compliance has been integrated within the Project and fully considered and costed throughout the project’s operation by the Client.	Following Project Commerical Operation Date, the Project shall operate in combined-cycle; and combined-cycle Net Electrical Efficiency shall apply for the duration of the Project’s operation.																								

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3.5	Continuous Emissions Monitoring System Install continuous emissions monitoring systems (CEMS) on all emission stacks – main- and bypass-stacks. Ensure that the position of installed monitoring portals (sampling locations) for both CEMS and extractive testing, comply with international standards for this sampling (EN15259), in particular in order to ensure homogenous flow and avoidance of turbulent zone sampling. A homogenous flow specialist assessment should be undertaken prior to installation of the CEMS in order to confirm that the installation portals are in the correct position.	Minimisation of pollution.	Good Practice EUBest Available Techniques EBRD: PR3 IFC/MIGA: PS3	Internal Resource	CEMS on all locations with correct portals prior to plant commissioning. Survey of monitoring portals against the EN 15259 standard prior to any detailed design finalisation and prior to release of tender package for installation (to ensure valid sampling and monitoring results).	Monitoring reports. Monitoring portals to be installed in line with EN 15259 (2007 or latest version).	.
3.6	Annual GHG Emissions Reporting; and Carbon Capture Storage (CCS) Readiness. Undertake annual GHG Emissions reporting for the Project. The reporting should follow <i>EBRD Protocol for Assessment of Greenhouse Gas Emissions</i> (or subsequent revisions).	The estimated annual GHG emissions exceed the Lender thresholds requiring annual reporting. Reporting Critical for ensuring that the Project's GHG impacts are understood, and minimised as and when new technology becomes viable.	Good Practice EBRD: PR1 IFC/MIGA: PS1	Management time, internal costs. External consultants if required.	GHG Emissions Reporting commencing on 31 January following Early COD 1. Reporting shall cover the preceding year; and be undertaken on an annual basis.	GHG Reports to be provided to the Lenders annually.	Summarise any regulatory requirements relating either to GHG contributions or CCS Readiness, within the reports to the Lenders.

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	<p>The reporting should be included within the Project's general corporate reporting package, and demonstrate alignment of the actual carbon intensities with those disclosed under the Project's ESIA; in summary:</p> <ul style="list-style-type: none"> ▪ Early Power Period (Simple-Cycle Operation): 486-488g CO_{2(eq.)}/kWh; and ▪ Complete Power Period (Combined-Cycle Operation): 338 – 343g CO_{2(eq.)}/kWh. <p>Undertake a CCS Readiness / Feasibility Assessment of the Project every 5 years throughout operations.</p>				CCS Feasibility to be completed 5 years from commissioning, and every 5 years thereafter.	<p>Provide a report to the Lenders: <i>The assessment report covering the availability of suitable storage sites and the technical and economic feasibility of transport facilities and retrofit for CO₂ capture</i></p> <p>The report should follow EU guidance.</p>	
3.7	<p>1st Hot Gas Path Inspections: Emissions Compliance Report</p> <p>Following the 1st Hot Gas Inspection, and the associated plant upgrades to align emissions with BAT-AELs without the use of secondary abatement / SCR; an <i>Emissions Compliance Report</i> shall be submitted to outline the proposed strategy to ensure ongoing BAT-compliance.</p> <p>For the avoidance of doubt, please see ESAP Item 3.4 for BAT-AELs.</p>	To ensure continued BAT-compliance of air emissions, particularly NOx.	<p>Best Available Techniques</p> <p>EBRD: PR3</p> <p>IFC: PS3</p>	<p>Project Company time in preparing report.</p> <p>Potential support from external consultants.</p>	<p>Within 3 weeks from completion of Hot Gas Inspections and associated works.</p> <p>Prior to modification of SCR operation; including reduced capacity or removal.</p>	<p>Submission of Emissions Compliance Report, to demonstrate efficacy of plant upgrades; strategy for continued BAT compliance; and contractual protections / recourse in the event of non-compliance.</p> <p>Approval by Lenders.</p>	The Project must comply with BAT-AEL; including continued use of SCR if deemed necessary to provide the required level of confidence.

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3.8	<p>Commission Audit within 1 year of Operation inclusive of:</p> <ul style="list-style-type: none"> ▪ NOx emissions; ▪ noise; ▪ water use, impacts and strategy for reduction (including cooling technology optimisation, and reviewed risk analysis based on updated climate change projections); ▪ labour issues; ▪ Greenhouse Gas (GHG) emissions; and ▪ Carbon-Capture-Storage (CCS) Readiness. <p>The audit shall include verification that the plant operation is aligned with <i>Best Available Techniques</i> (BAT).</p> <p>Repeat the audit every 5 years and develop an action plan based upon the audit findings. This shall include an options appraisal for continued improvement, including for water use reduction.</p>	<p>Need to verify operations.</p> <p>BAT compliance, particularly NOx performance and management of potential risks associated with SCR operation.</p> <p>Water use to verify projected abstraction requirements, loss, and absence of conflict issues with adjacent irrigation demands.</p>	<p>Good Practice</p> <p>EBRD: PR1 / PR2 / PR3 / PR4</p> <p>IFC.MIGA: PS1 / PS2 / PS3 /PS4</p>	<p>Independent consultant, with a demonstrable track-record in auditing CCGT projects against International Lender Requirements.</p>	<p>Within 1 year of Project (CCGT) Commissioning.</p> <p>Repeat audits every 5 years thereafter.</p>	<p>Compliance Report and Improvement Plan.</p> <p>The Terms of Reference for the Audit, and selection of Consultant shall be approved by the Lenders prior to instruction.</p>	<p>The reports shall be submitted to the Lenders for review.</p>
PR4	Health & Safety						

No	Action	Environmental Risks, Liability/ Benefits	Legislative Requirement / Lender Requirements / Good practice	Investment Needs / Resources Costs	Timetable Action Due Date	Target and Evaluation Criteria for Successful Implementation	Comment
4.1	COVID-19 Risk Assessment A documented COVID-19 Risk Assessment shall be completed, in line with International Good Practice, such as European Agency for Safety and Health at Work (EU-OSHA); Institution of Occupational Safety and Health (IOSH); World Health Organisation (WHO); and International Labour Organisation (ILO), to minimise the risk of the Project causing, or exacerbating, COVID-19 infections.	<p>The project will employ >2,000 at the peak of construction; including expatriate and migrant workers.</p> <p>The risk of COVID-19 must be integrated within resourcing decisions, labour management, and coordination/consultation with local communities, health authorities and governmental representatives.</p>	<p>Good practice.</p> <p>EBRD: PR1 /PR2 / PR4</p> <p>IFC/MIGA: PS1 / PS2 / PS4</p>	<p>Internal time.</p> <p>External Consultants as required.</p> <p>Coordination with EPC Contractor and O&M Company.</p>	<p>Prior to commencement of construction.</p> <p>Updated on an ongoing basis to align with national/local guidance, as well as international practice and WHO advice.</p>	<p>COVID-19 Risk Assessment completed and fully integrated in HR management, procurement, and Community Health & Safety arrangements – particularly Emergency Preparedness and Response Planning.</p>	<p>The Risk Assessment should also be cognisant of the additional pressures on local medical resources; be fully integrated across the project management; and identify responsible persons throughout the Project Management structure for ensuring that the Risk Assessment findings are effectively implemented.</p>
4.2	Traffic Management Plan Agree transportation routes and acceptable traffic patterns to minimise traffic nuisance during construction phase of the Project.	<p>Avoid or minimise risks and nuisance to local community</p>	<p>EBRD: PR 4</p> <p>IFC/MIGA: PS4</p>	<p>Part of project implementation.</p>	<p>Prior to commencement of construction works.</p>	<p>The plan is in place, consulted with local authorities and approved by the Engineer and the Project Company.</p> <p>The Plan shall form part of the CESMP (ESAP Item 1.7)</p>	<p>Instruction for the subcontractors regarding transportation should be prepared.</p> <p>In addition to traffic routes and requirements for signage, the plan should include driver awareness training, and requirements for awareness raising among general public.</p>

No	Action	Environmental Risks, Liability/ Benefits	Legislative Requirement / Lender Requirements / Good practice	Investment Needs / Resources Costs	Timetable Action Due Date	Target and Evaluation Criteria for Successful Implementation	Comment
4.3	Occupational Health and Safety Management System Including a detailed Occupational Health and Safety Management Plan to be developed for the Project.	Minimisation of accidents and incidents and ensure a safe working environment and promote the health of workers and safe use of equipment. Improved and continual improvement of health and safety performance.	EBRD: PR2 / PR4 IFC/MIGA: PS2 / PS4	Part of project implementation	Prior to commencement of construction works.	OHS Plan is in place and approved by the Project Company. Records of OHS training. Record of Safety Meetings. Accidents and near-misses record. Record of safety inspections to be included in semi-annual environmental monitoring reports.	OHS Plan should include risk assessments, training requirements and plan, EHS operational control, PPE requirements, performance monitoring and reporting through the contractor and sub-contractor chain.
4.4	Emergency Preparedness and Response Plan A comprehensive Emergency Response Plan to be developed for the Project clearly setting roles and responsibilities. There should be sections developed to cover situations relating to: <ul style="list-style-type: none"> ▪ Containment of hazardous materials; ▪ Oil and fuel spills; ▪ Fire, gas leaks and explosions; ▪ Work-site accidents; and Earthquake and other natural hazards. ▪ Extreme weather conditions ▪ COVID-19 outbreaks. 	Maximise effectiveness of response to emergencies Minimisation of risks to workers and community health and safety	EBRD: PR1 / PR4 IFC/MIGA: PS1 / PS4	Part of project implementation	Prior to commencement of construction works.	The plan is in place, consulted with and, as appropriate, approved by local Emergency Services and/or appropriate Competent Authorities. Record of consultation. Schedule and record of drills.	The plan should include information about Emergency Planning arrangements for the local community.

No	Action	Environmental Risks, Liability/ Benefits	Legislative Requirement / Lender Requirements / Good practice	Investment Needs / Resources Costs	Timetable Action Due Date	Target and Evaluation Criteria for Successful Implementation	Comment
4.5	Community Health & Safety Management Plan A comprehensive Community Health and Safety Management Plan shall be developed for the Project. This should include aspects of the <i>Traffic Management Plan</i> ; <i>Influx Management Plan</i> ; <i>GBVH Policy</i> ; water quality management; and <i>Emergency Preparedness and Response Plan</i> - all considered in the context of their impacts on the community and measures to prevent those impacts.	Integrated management of potential risks affecting Community Health & Safety; and integrating the specific considerations derived from specific hazard management plans.	Good Practice EBRD: PR1 / PR4 IFC/MIGA: PS1 / PS4	Internal Costs of the Project Company.	Prior to commencement of construction.	Submission of Project Company's <i>Community Health & Safety Management Plan</i> , to the Lenders for review and approval.	-
4.6	Security Risk Assessment and Security Management Plan The plan will be aligned to the UN Code of Conducts for law enforcement officials, the IFC's <i>Good Practice Handbook on the Use of Security Forces: Assessing and Managing Risks and Impacts</i> ; and the UN Basic Principles on the use of Force and Firearms by law enforcement officials (where firearms are in use).	Ensure that the security established at site is proportionate to the potential security risks; and that security is implemented in line with the Lenders' Requirements and International Best Practice.	Good Practice EBRD: PR4 IFC/MIGA: PS4	Internal Costs of the Project Company.	Prior to commencement of construction.	Submission of <i>Security Risk Assessment and Security Management Plan</i> to Lenders for review and approval.	In the event that Uzbekistan Military are assigned to undertake security at the site; the Project Company will liaise with security representatives to ensure that the conduct of security staff is fully aligned with the Project Requirements and policies. This can include mandatory site induction, covering aspects such as GBVH and Grievance Reporting.
PR5	Land Acquisition, Involuntary Resettlement and Economic Displacement						

No	Action	Environmental Risks, Liability/ Benefits	Legislative Requirement / Lender Requirements / Good practice	Investment Needs / Resources Costs	Timetable Action Due Date	Target and Evaluation Criteria for Successful Implementation	Comment
5.1	Overhead Transmission Line (OHTL) Finalisation At present, the OHTL routing is not yet finalised by JSC National Electric Networks of Uzbekistan. The OHTL – and the associated construction corridor - will result in livelihood impacts; which will need to be managed in line with the Lender Requirements, and Livelihood Restoration Framework.	Management of Associated Facilities impacts, in line with Lender Requirement.	EBRD: PR1 / PS5 / PR10 IFC/MIGA: PS1 / PS5	Independent E&S Consultant. Internal time. Coordination with JSC National Electric Networks of Uzbekistan	Prior to finalisation of Livelihood Restoration Plan (see ESAP Item 5.4).	Supplementary studies, including consultation and inventories, to determine the extent of impacts. Findings to be incorporated within the Project's Livelihood Restoration Plan.	The extent of socio-economic impacts associated with the OHTL will require confirmation once the alignment is finalised (the ESIA has assessed the impacts based on likely routing, based on best available information at the time). The findings of this study will inform the preparation of the Project's Livelihood Restoration Plan.
5.2	Gas Connection Line Finalisation At present, the gas connection routing is not yet finalised by Uztransgaz. The gas pipeline – and the associated construction corridor - will result in livelihood impacts; which will need to be managed in line with the Lender Requirements, and Livelihood Restoration Framework.	Management of Associated Facilities impacts, in line with Lender Requirement.	EBRD: PR1 / PS5 / PR10 IFC/MIGA: PS1 / PS5	Independent E&S Consultant. Internal time. Coordination with Uztransgaz.	Prior to finalisation of Livelihood Restoration Plan (see ESAP Item 5.4).	Supplementary studies, including consultation and inventories, to determine the extent of impacts. Findings to be incorporated within the Project's Livelihood Restoration Plan.	The extent of socio-economic impacts associated with the gas pipeline will require confirmation once the alignment is finalised (the ESIA has assessed the impacts based on likely routing, based on best available information at the time). The findings of this study will inform the preparation of the Project's Livelihood Restoration Plan.
5.3	Sanitary Protection Zone (SPZ) Finalisation At present, the Ministry of Health of Uzbekistan are reviewing the requirement for an SPZ – 500m radius – for the Project.	Management of Associated Facilities impacts, in line with Lender Requirement.	Legislative Requirements EBRD: PR1 / PS5 / PR10 IFC/MIGA: PS1 / PS5	Independent E&S Consultant. Internal time.	Prior to Early Power Commercial Operation Date	Written confirmation from the relevant authorities that an SPZ is not required; OR	

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	In the event that this is required, additional livelihood impacts will occur. Whilst these have been tentatively assessed under the Project's ESIA, further consultation and surveys will be required to verify the impacts, and inform the finalisation of the Project's Livelihood Restoration Plan.			Coordination with Ministry of Health of Uzbekistan		Supplementary studies, including consultation and inventories, to determine the extent of impacts.	At present, the ESIA has included estimates in the extent of new potentially affected persons; however, the requirement of an SPZ is not yet confirmed by the authorities.
					Prior to Project Commercial Operation Date	Findings to be incorporated within an updated Project Livelihood Restoration Plan; which shall be submitted to Lenders for review.	The findings of this study will inform the preparation of the Project's Livelihood Restoration Plan.

No	Action	Environmental Risks, Liability/ Benefits	Legislative Requirement / Lender Requirements / Good practice	Investment Needs / Resources Costs	Timetable Action Due Date	Target and Evaluation Criteria for Successful Implementation	Comment
5.4	<p>Livelihood Restoration Plan Develop, implement and regularly update the Livelihood Restoration Plan (LRP); based upon the <i>Livelihood Restoration Plan Framework</i> which was prepared as part of the Project's disclosure.</p> <p>The LRP will establish the entitlements of affected persons and communities and will ensure that these are provided in a transparent, consistent and equitable manner. The process should include the following:</p> <ul style="list-style-type: none"> ▪ Determination of cut-off date; ▪ Identification of all formal and informal land users at time of the cut-off date as well as their income sources and provide adequate details (e.g. size of used land, size of land affected by the projected, size of land remaining post project implementation); ▪ Determination of land pieces; ▪ Compensation in line with lender and national requirements (details to be provided); ▪ Livelihood Restoration Programs; and, ▪ Consideration of, and measures to address, differential impacts on Vulnerable People. 	Minimisation of impacts of land acquisition and mitigation for the risks of permanent and temporary land acquisition and compensating for lost income and land.	<p>Good Practice</p> <p>EBRD: PR 5</p> <p>IFC/MIGA: PS5</p>	Third party consultant/ Project Company	<p>As soon as possible, and at the latest, prior to commencement of construction.</p> <p>Prior to Project Commercial Operation Date</p>	<p>Extent of economic displacement and compensatory measures required for the displacement determined.</p> <p>Evidence of LRP implementation and compensation in line with the LRP provided prior to construction, and reported to Lenders'.</p> <p>The client will summarise the information contained in the LRP for public disclosure to ensure that affected people understand the compensation procedures and know what to expect at the various stages of the project.</p> <p>Complete any updates to the LRP in relation to the SPZ (see ESAP Item 5.3), and an updated LRP provided to the Lenders for review.</p>	-

No	Action	Environmental Risks, Liability/ Benefits	Legislative Requirement / Lender Requirements / Good practice	Investment Needs / Resources Costs	Timetable Action Due Date	Target and Evaluation Criteria for Successful Implementation	Comment
PR6	Biodiversity Conservation and Suitable Management of Living Natural Resources						
6.1	Overhead Transmission Line (OHTL) Work with JSC National Electric Networks of Uzbekistan to ensure that bird protection measures are included in the final design and implementation of the OHTL.	Protection of biodiversity from Project Associated Facilities.	EBRD PR6 IFC/MIGA: PS6	Internal costs. Optional support from external consultants. Coordination with JSC National Electric Networks of Uzbekistan	Prior to construction of Overhead Transmission Line.	Written statement to Lenders confirming the mitigation incorporated, including risk assessment to demonstrate that the residual impacts will not result in significant harm to biodiversity.	Risk assessment and significance criteria shall follow international best practice and be aligned with the requirements set out under EBRD Performance Requirements and IFC Performance Standards.
PR8	Cultural Heritage						
8.1	Chance Find Procedure Ensure Contractors/Sub-contractors adopt a chance finds procedures and report 'chance finds' to the authorities and other relevant institutions to undertake excavation and full archaeological assessment of the finds. All workers of Contractors/Sub-contractors to receive induction training on the use of chance finds procedures.	To preserve cultural heritage.	Legislative Requirement EBRD: PR8 IFC/MIGA: PS8	Internal Costs. Client to review, approve and audit implementation of Chance Find Procedures prepared by EPC and O&M Contractors.	Prior to commencement of construction.	Chance finds procedure adopted by Contractors/Sub-contractors. Report to the required authorities on any archaeological findings and excavation, and notify the Lenders.	Requirements for Lender-aligned Chance Find Procedure included in tender specifications. The Chance Find Procedure ensure the Contractor stops works; whilst consultations with relevant authorities are undertaken as required.
PR 10	Information Disclosure and Stakeholder Engagement						

No	Action	Environmental Risks, Liability/ Benefits	Legislative Requirement / Lender Requirements / Good practice	Investment Needs / Resources Costs	Timetable Action Due Date	Target and Evaluation Criteria for Successful Implementation	Comment
10.1	<p>Stakeholder Engagement Plan (SEP) Implement the SEP and Grievance Mechanism.</p> <p>Nominate a person in the Project Company responsible for SEP implementation and for responses to grievances raised by stakeholders. Details of the nominated person, including experience and qualifications relevant to the task, are to be provided to Lenders. Typically, individuals would be sourced from the local community and would work closely with the Community Liaison Officer (CLO) (see ESAP Item 10.2).</p> <p>Ensure that SEP and Non-Technical Summary (NTS) and appropriate environmental documentation is disclosed on the company website – in English, Uzbek and Russian - throughout the project life, and updated as necessary.</p>	<p>Need for good stakeholder engagement and public information.</p> <p>The Company needs a plan for communication with third parties as well as workers and subcontractors, and create mechanisms for feedback on concerns/issues raised by stakeholders.</p> <p>Tasks and responsibilities are clearly identified. Reducing the risk of conflicts and ensuring good public relations</p>	<p>Good Practice EBRD: PR10 IFC/MIGA: PS1</p>	<p>Management time, or external experts fee</p>	<p>As soon as possible, and at the latest, prior to commencement of construction.</p> <p>Continuous implementation.</p>	<p>SEP published on website and disclosed to affected stakeholders.</p> <p>Documentation of stakeholder engagement activities is readily available for the Bank's review.</p> <p>Grievance and suggestions log and resolution records are readily available for the Bank's review. SEP implementation results will be part of annual reporting to the Bank.</p>	-
10.2	<p>Community Liaison Officer Appoint a site-based Community Liaison Officer (CLO) with appropriate skills and experience to effectively manage the implementation of the SEP.</p>	<p>Liaison with local communities and authorities on a regular basis, analyse interaction and provide updates and practical recommendations.</p>	<p>EBRD: PR1\PR10 IFC/MIGA : PS1</p>	<p>Internal costs.</p>	<p>Prior to commencement of construction.</p>	<p>Submission to Lenders of proposed CLO CV and experience, including time allocation in fulfilling the CLO role ; in advance of appointment.</p> <p>Appointment of CLO.</p>	-

No	Action	Environmental Risks, Liability/ Benefits	Legislative Requirement / Lender Requirements / Good practice	Investment Needs / Resources Costs	Timetable Action Due Date	Target and Evaluation Criteria for Successful Implementation	Comment
10.3	Community Development Plan Undertake consultation with the local community and agree a documented <i>Community Development Plan</i> .	Enhancement of local facilities and resources as a result of the Project. Distribution of benefits among the local communities.	EBRD: PR1\PR10 IFC/MIGA : PS1 IFC, Strategic Community Investment: A Good Practice Handbook for Companies doing Business in Emerging Markets, June 2010	Internal \ Project Costs.	Prior to Early Power Commissioning	Community Development Plan agreed with local community. Documented development goals, timeline and funding. Audit \ closure report upon completion.	Documentation to be provided to Lenders, including records of consultation to demonstrate of the Community Development Plan will benefit local communities.
10.4	Corporate ESG Reporting & Disclosure As part of corporate ESG reporting and disclosure provide information on the Project in annual corporate reports. This will include providing information in line with EU Guidelines on reporting climate related information from July 2019 – and/or best practice as appropriate. The report will include information on Water use/impacts as well as GHG emissions.	Implementation of best practice in terms of Non-Financial Disclosure and ESG.	Good Practice EBRD: PR1\PR10 IFC/MIGA : PS1	Internal costs.	Prior to commissioning	Copy of corporate ESG/Non-Financial Report submitted to Lenders.	Part of corporate bes-practice management.

No	Action	Environmental Risks, Liability/ Benefits	Legislative Requirement / Lender Requirements / Good practice	Investment Needs / Resources Costs	Timetable Action Due Date	Target and Evaluation Criteria for Successful Implementation	Comment
10.5	Annual Reporting Prepare annual reports for the benefit of the Lenders, throughout the operation of the Project. These reports should cover the full breadth of Lender Requirements; including a summary of ESAP compliance.	Ensure that Lenders are informed of the Project performance,	EBRD : PR1 IFC/MIGA : PS1	Internal costs.	Prior to Early Power Commercial Operations Date.	Submission of reporting template to Lenders for agreement.	
					From Project Commercial Operation Date Reports submitted annually, on 31 January, covering the previous year of operation.	Submission of Annual Reporting to Lenders.	