
BAZIAN POWER PLANT PROJECT



ENVIRONMENTAL AND SOCIAL ACTION PLAN



MAY, 2015

ANKARA



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ABBREVIATION LIST

2U1K	2U1K Engineering and Consultancy Inc.
EHS	Environment, Health and Safety
EPC	Engineering, Procurement and Construction
EPRP	Emergency Preparedness and Response Plan
ESAP	Environmental and Social Action Plan
ESIA	Environment and Social Impact Assessment
ESMMP	Environmental and Social Management and Monitoring Plan
ESMS	Environmental and Social Management System
HR	Human Resources
IFC	International Finance Corporation
LTA	Lenders Technical Advisor
O&M	Operation and Maintenance
OHS	Occupational Health and Safety
PS	Performance Standard
SEP	Stakeholder Engagement Plan

1 INTRODUCTION

This document comprises the Environmental and Social Action Plan (ESAP) for the the ‘*Bazian Power Plant Project*’ (hereinafter ‘the Project’). It summarizes the issues and actions related with the Project, provides national and international legal framework for these issues, describes completion indicator of issues, and provides timeframe for the implementation and represent responsibilities of all related parties of the Project.

In lifetime of the Project, action plans have essential importance to avoid potentially adverse effects - and maximize potential benefits - of the Project with respect to environmental, health and safety and social aspects, and to operate in conformance with applicable laws and regulations of KRG and Republic of Iraq, as well as the policies of international financial organizations.

The specific items of ESAP are based on the Impact Assessment described in the main text of the Environmental and Social Assessment (ESIA) report, plus the results of discussions with Stakeholders and Project Company and the Project Lenders.

The ESAP takes a long-term view of the entire life cycle of the Project and will continue to evolve in scope and depth within the three key stages of the project implementation: Pre-Investment, Construction and Operation.

Qaiwan Group (shortly “the Project Company” hereinafter) and the EPC Contractor Company hold the major responsibilities in relation to implementation of the ESAP components. 2U1K will be responsible for the monitoring of EIA commitments during the construction stage on semi-annual basis, and operational phase on annual basis as part of its consultancy scope for the EIA. This excludes monitoring of environmental quality parameters.

2 PRE-INVESTMENT PHASE

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
PS 1 - Assessment and Management of Environmental and Social Risks and Impacts					
1.1	Developing Project Specific Environmental and Social Management System and Environment, Health, and Safety (EHS) Training Programme	IFC PS1 & PS2 IFC EHS Guidelines	<p>Project specific environmental and social management system (ESMS) will be established. As part of it, the following framework management plans will be prepared:</p> <ul style="list-style-type: none"> • Health, Safety and Environment (HSE) Plan inclusive of Emergency Preparedness and Response Plan, Health and Safety and Security Plan, Spill Prevention Plan, Archaeological Chance Find Procedure, Hazardous Material Storage Plan, Material Handling and Storage), • Traffic Management Plan, • Waste Management Plan, • Dust Control Plan, • Grievance Procedures (workers and community), <p>EPC Company and other sub-contractors will be required to prepare detailed and site-specific plans on the basis of the framework plans.</p> <p>Organizational chart to be updated with chief name, with defined roles and responsibilities.</p>	<p>Prior to financial close</p> <p>Implement ESMS / ESMMP throughout construction. For operation phase refer to Chapter 4.</p>	<p>Qaiwan Group</p> <p>EPC Company</p>
1.2	Contractor Compliance - include clauses in contracts requiring compliance with Project HR Policy, ESMMP, ESAP, EHS and other Plans linked to ESMS	IFC PS1 & PS2	<p>Review of the updated contract requirements by the Lenders Technical Advisor (LTA) to ensure that it contains appropriate clauses that require the contractors and sub-contractors to comply with the EHS requirements to manage the environmental and social risk and adhere to mitigation measures and actions</p>	Prior to financial closure.	<p>Qaiwan Group</p> <p>EPC Company</p>

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
			identified and set out in the ESMMP and ESIA. Employee Induction and Training programme to be prepared for construction phase, as well as Effective Public Consultation Plan and "Buy Local" Policy in line with ESMMP by Qaiwan Group and EPC contractor.		
1.3	Develop Worker Code of Conduct to manage workers' behaviour on site, in camp and in communities.	IFC PS1	Worker Code of Conduct	Prior to financial closure.	Qaiwan Group EPC Company
1.4	Permits and licenses	IFC PS1 Turkish Environmental Legislation	Proof of documentation for: Environmental and Social Impact Assessment Report (already in place) Outstanding permits	Prior to construction	Qaiwan Group EPC Company
PS 2 - Labour and Working Condition					
2.1	Develop Human Resources (HR) Policy for EPC in line with IFC PS2 for construction phase and ensure all workers are aware of its content. State policy on child labour and forced labour, non-discrimination and equal opportunity in HR Policy in line with IFC PS2. State commitment allowing workers to join trade union in HR Policy covering the whole project as well as a commitment to engage with representatives of unions when necessary.	IFC PS2 Turkish Labour Law Article 5: The principle of equal treatment	Human Resources /Rights Policy submitted to TA Worker's Handbook submitted to TA	Prior to financial closure.	Qaiwan Group EPC Company
2.2	Develop worker contracts or an HR method statement describing that the job description for workers, employment	IFC PS2 Turkish Labour Law	Template worker contracts submitted to TA for review.	Prior to financial closure.	Qaiwan Group EPC Company

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
	requirements of Turkish Law will be obeyed and HR Policy and workers handbook will be the annex of the method statement.	Article 8: HR Policy, Types and Termination			
2.3	<i>Produce a Workers' Accommodation Plan detailing how provisions will be made for compliance with 'Workers' accommodation: processes and standards, a guidance note by IFC (2009).</i>	IFC PS2 IFC Guidelines for Temporary Accommodation	Workers' Accommodation Plan.	Prior to financial closure.	Qaiwan Group EPC Company
2.4	Develop a worker grievance mechanism in line with IFC PS2. Commit to resolving grievances within specified timeframes. Commit to taking action to prevent recurrence of grievances where appropriate.	IFC PS2	Documented worker grievance mechanism submitted to TA	Prior to financial closure	Qaiwan Group EPC Company and other subcontractors
2.5	Appoint OHS Manager for construction with clearly defined responsibilities for the construction in the Project Company Develop OHS Policy for (i) construction and (ii) operation of the power plant including Emergency Response Measures Set up a centralised Reporting System on any OHS related accidents in the Project Company	IFC PS2 IFC's Environmental, Health and Safety Guideline for Construction and Decommissioning.	Draft Policy for review Centralised Reporting System	Prior to financial close alternatively prior to first draw down. OHS Centralised Reporting System has been prepared and implemented.	Qaiwan Group EPC Company
2.6	Appointment of HR Manager for the Project for construction phase.	IFC PS2	HR Manager as a member of project staff and shown on organisation chart.	Prior to Construction	Qaiwan Group EPC Company
2.6	Prepare a construction phase site health and safety plan which informs all workers of the rules and specific	Turkish OHS Law (#6331)	Copy of the construction phase health and safety plan provided to Lender	Prior to financial close.	Qaiwan Group EPC Company

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
	measures to be implemented during construction work. The plan is to be communicated to all contractors and updated as necessary				
2.7	Ensure all working at heights will be sufficiently planned with physical measures in place to avoid, prevent and mitigate any falls	Turkish OHS Law (#6331)	Copy of the construction phase health and safety plan with clear requirements detailed within for working at heights during construction work.	Prior to financial closure.	Qaiwan Group EPC Company
PS 3 - Resource Efficiency and Pollution Prevention					
3.1	Compliance with national and international standards/ Project Company will ensure that the environmental requirements of the most stringent standards (National Legal Frame and IFC requirements) will be incorporated into their systems and will avoid the release of pollutants or, when avoidance is not feasible, minimize or control their release.	IFC PS3 Good Practice Best Available Techniques IFC EHS Guidelines National Environmental Legislation	Updated ESMS/ESMMP, site-specific sub-plans and monitoring records of compliance with ESMS/ESMMP throughout construction and operation (relevant procedure and plans for construction period to be updated throughout the project and followed up on continuous basis). Management Plans for control and monitoring, including: <ul style="list-style-type: none"> Waste Management Plan including Hazardous Materials Air Quality and GHG Management Plan 	Throughout the project	Qaiwan Group EPC Company

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
3.2	Waste	IFC PS3 Good Practice IFC EHS Guidelines	Waste collection agreement with Bazian Municipality. Contracts with licensed transportation companies for hazardous waste and waste oils, and Contracts with licensed recovery/ disposal facilities for hazardous waste, waste oils, waste batteries and accumulators and waste vegetable oils.	Prior to financial close.	Qaiwan Group EPC Company
3.3	Wastewater A temporary wastewater treatment plant will be installed at the Camp Site. Treated effluent will then be released into the natural basin or receiving water body.	IFC PS3 Good Practice IFC EHS Guidelines	Capacities and discharge standards of the treatment to be provided to Lender	Prior to financial close.	Qaiwan Group EPC Company
PS 4 - Community Health, Safety, and Security					
4.1	Develop Emergency Preparedness and Response Plan (EPRP) for construction phase in collaboration with relevant local authorities.	IFC PS4	EPRP	Prior to financial close.	Qaiwan Group EPC Company
4.2	Provide security policy and plan detailing location of camp site and other units;	IFC PS4	Security policy and plan	Prior to financial close.	Qaiwan Group EPC Company

PS 5- Land Acquisition and Involuntary Resettlement					
5.1	Review and assessment of economic displacement requirements associated with the expropriation process. Qaiwan Group to monitor the expropriation process to ensure that adverse impact due to economic displacement are mitigated based on focus group consultation	IFC PS5	Report to be provided to the Lender	Prior to Lender's Board discussion of the project	Qaiwan Group EPC Company
PS1/PR10 -Information Disclosure and Stakeholder Engagement					
10.1	Documentation of all information disclosure to be kept on record	Equator Principle 5 IFC PS1	Document log Appointment of specific manager for this task in Qaiwan Group.	Provided to Lender per request at any time	EPC Company and Qaiwan Group Consultant
10.2	Implementation of Project Performance Grievance Mechanism Publize the SEP and Grievance Mechanism including information on contact details of public relations officer.	IFC PS1	Grievance Log submitted to TA Records of correspondence Evidence of grievance mechanism contact details on leaflets, signage and other public material.	Prior to financial closure	Qaiwan Group EPC Company
10.3	ESIA Report, Stakeholder Engagement Plan (SEP) and Environmental and Social Action Plan to be disclosed both in English and Turkish and remain in the public domain for the lifetime of the Project.	IFC PS1	Evidence of disclosure and availability	Prior to the start of the disclosure period and throughout the project time	Qaiwan Group EPC Company
10.4	A public Participation Meeting to be performed within the disclosure period of Draft ESIA Report	IFC PS1	Records of meeting	Within the disclosure period	Qaiwan Group EPC Company

3 CONSTRUCTION PHASE

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
PS 1 – Assessment and Management of Environmental and Social Risks and Impacts					
1.1	Implement Project Specific Environmental and Social Management System and EHS Training Programme	IFC PS1 & PS2 IFC EHS Guidelines	<p>Project specific environmental and social management system (ESMS) will be established and implemented. As part of it, all plans/ procedures listed below will be implemented:</p> <p>Project specific environmental and social management system (ESMS) will be established. As part of it, the following framework plans will be prepared:</p> <ul style="list-style-type: none"> • Health, Safety and Environment (HSE) Plan inclusive of Emergency Preparedness and Response Plan, Health and Safety and Security Plan, Spill Response Plan, Hazardous Material Storage Plan, Material Handling and Storage), • Greenhouse Gases (GHG) and Air Quality Management Plan, • Traffic Management Plan, • Waste Management Plan, • Grievance Procedures (workers and community), • Occupational Health and Safety (OHS) plan and Security Policy and Plan, <p>EPC Company and other sub-contractors will be required to prepare detailed and site-specific plans on the basis of the framework plans.</p> <p>Organizational chart to be updated with chief name, with defined roles and responsibilities.</p> <p>Monthly ESMS reporting by EPC Company to Qaiwan Group;</p>	<p>Implement ESMS throughout construction phase.</p> <p>Monthly reporting as required.</p>	<p>Qaiwan Group EPC Company 2U1K (Responsible for EIA Monitoring)</p>

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
			Quarterly and Annual ESMS reporting by Qaiwan Group to Lender/Lender Technical Advisor showing compliance with the relevant IFC and implementation of the Plan; Semiannual reporting by 2U1K for monitoring of compliance with respect to the EIA Report.		
1.2	ESMS/ESMMP Compliance/Internal reporting	IFC PS1	Monthly Progress Reporting to Lender	Throughout the construction phase	Qaiwan Group EPC Company
1.3	Construction Methods/ Development of Method Statements The list of relevant construction activities will be mutually decided by Lender and the EPC contractor.	IFC PS 1	LTA to receive construction methods for construction activities having significant impacts on environment and health and safety issues. Development of method statements will act as key document to facilitate management and monitoring of construction stage environmental and social issues. Construction methods received by LTA, method statements in place in line with good practice to manage and monitor construction E&S issues	Prior to each construction activity submittal of Method Statements to LTA	Qaiwan Group EPC Company
PS 2 - Labour and Working Condition					
2.1	Implement Health and Safety Plan for construction phase of the Project. i. Implement OHS plan based on risk analysis for the construction using international benchmark such as IFC's Environmental, Health and Safety Guideline for Construction and Decommissioning, as well as comply with Turkish OHS law and requirements	IFC PS2 IFC EHS Guidelines Turkish OHS Law (#6331)	Monthly ESMS reporting to Lender/Lender Technical Advisor showing compliance with the relevant IFC Guidance and implementation of the Plan. In accordance with the Monitoring Plan, Lender /Lender Technical Advisor specialist visit the construction site monthly. Report promptly any material HSS issues to Lender Provide information on HSS management in Lender	Commence upon the start of the earth work and implement throughout the construction. Monthly reporting	OHS manager of Qaiwan Group

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
	ii. OHS manager with clearly defined responsibilities for the construction in the Project Company iii. constant OHS supervision at site iv. Ensure that the construction workers are provided with OHS training and adequate Personal Protection Equipment Assign. v. Place OHS sign clearly vi. Ensure fences, hand rails in place vi. Implement a centralised reporting system on any OHS related accidents in the Project Company vii. Ensure medical first aid at the site and emergency transfer ix.. Report Material OHS incident promptly to Lender		Supervisor.		
2.2	Ensure all workers are aware of content of workers agreements.	IFC PS2 Turkish Labour Law Article 5: The principle of equal treatment	Signed workers agreement	Throughout the construction	Qaiwan Group EPC Company
2.3	Implement Worker Code of Conduct to manage workers' behaviour on site, in camp and in communities.	IFC PS1	Evidence of how Code of Conduct is distributed to workers throughout construction phase Workers report that they know about Code of Conduct in interviews throughout construction phase	Throughout the construction	Qaiwan Group EPC Company
2.5	Worker Protection (i) Comply with national labour	Turkish labour law Article-5 : The principle	Monitoring Plan, Lender specialist visit the site Provide information on OHS management and how	Prior to construction works start and implement throughout the construction.	Qaiwan Group EPC Company

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
	law (ii) Ensure individual and labour contract in line with PS2 (iii) Ensure migrant and/or immigrant construction workers' human right to be fully respected (iv) If temporary accommodation is to be provided, it needs to comply with <u>IFC Guidelines for Temporary Accommodation</u>	of equal treatment IFC PS2	many grievances were received and from whom, how many were resolved and how in the Lender Supervisor. Template of workers agreement submitted to TA. Report on the implementation of the Workers' Accommodation Plan throughout construction	Monthly reporting	
2.6	Payroll checks by EPC contractor against issues such as sub-contractor wage rates, payment of benefits and timely payments.	IFC PS2 Turkish Labour law Article-61: Social insurance contributions	Short quarterly reports available for review by external monitors. (More frequent if necessary).	At commencement of construction and maintain regularly throughout Project.	Qaiwan Group EPC Company
2.7	HR Policy to all workers covering all the requirements of national labour legislation and IFC PS2.	IFC PS2 Turkish Labour Law Article-8: HR Policy,	Workers state that they have seen policy when interviewed. Inclusion of summary of HR Policy and Worker's Handbook in induction training given to all staff. HR Policy displayed on selected notice boards around site.	To be implemented throughout the construction.	Qaiwan Group EPC Company
2.8	Develop method statements for major work activities for construction. Maintain records of safety and induction training and the names of first aiders. Make staff aware of whom first aiders are. Maintain accident and incident logs. EPC/operation and maintenance (O&M) safety officers to carry out regular inspections of site safety and	IFC PS2 IFC General EHS Guidelines Turkish OHS Law (#6331)	Method statements; LTA to receive construction methods for construction activities having significant impacts on environment and health and safety issues. Training records; List of first aiders and evidence that workers know who they are; Accident and incident logs; Safety inspection records; and Personnel files.	Maintain throughout the construction activities.	Qaiwan Group EPC Company

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
	<p>PPE use on site.</p> <p>Keep records of next of kin contact details in each worker's personnel file.</p> <p>Young people are not to be employed in hazardous work.</p>				
2.9	<p>Require sub-contractors to adhere to EPC contractors' OHS policies and plans through contract clauses.</p> <p>Require sub-contractors to report accidents, incidents and safety non-compliances.</p> <p>Require sub-contractors to maintain records of their employee's next of kin contact details.</p>	<p>IFC PS2</p> <p>Turkish OHS Law (#6331)</p>	<p>Contracts</p> <p>Sub-contractor accidents, incidents and non-compliances kept on record (and</p> <p>Sub-contractor personnel files.</p>	Maintain throughout the construction activities	<p>Qaiwan Group</p> <p>EPC Company</p>
2.10	<p>Prepare a health and safety file which should contain project health and safety information which needs to be taken into account during the future maintenance and operation.</p>	Turkish OHS Law (#6331)	Copy of the handover certificate from the EPC Company to the Project Co.	On completion of construction work	<p>Qaiwan Group</p> <p>EPC Company</p>
2.11	<p>Ensure all workers are informed of the grievance mechanism and that it is easily accessible to them.</p> <p>Commit to resolving grievances within specified timeframes in the ESIA Report.</p> <p>Commit to taking action to prevent recurrence of grievances where appropriate.</p>	<p>IFC PS2</p> <p>Article-5 : The principle of equal treatment</p>	<p>Maintain records of grievances and how they are closed out; and</p> <p>Evidence of how workers are informed of grievance mechanism.</p>	Throughout the construction	<p>Qaiwan Group</p> <p>EPC Company</p>
2.12	<p>Require sub-contractors to manage their workers in line with the HR Policy by including HR Policy in tender documentation and contractual agreements.</p>	IFC PS2	Tender documents and contracts.	Throughout construction.	<p>Qaiwan Group</p> <p>EPC Company</p>

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
2.13	<p>Include pass/fail factor for contractors based on their health and safety performance when reviewing bids.</p> <p>Carry out checks on sub-contractors to verify they are reputable and legitimate enterprises prior to entering into contracts and document this process.</p>	<p>IFC PS2</p> <p>Turkish OHS Law (#6331)</p>	<p>Records showing process and results of sub-contractor reviews.</p>	<p>Prior to signing contracts with sub-contractors.</p> <p>Procurement procedure will contain HSE policy all suppliers are complying with HSE standards.</p>	<p>Qaiwan Group</p> <p>EPC Company</p>
2.14	<p>Carry out checks on major suppliers to inquire about life-threatening issues, the use of child and forced labour and take necessary steps to address in line with IFC PS2.</p> <p>All contractors will sign an anti-corruption and responsible procurement policy.</p>	<p>IFC PS2</p>	<p>Records showing process and results of supplier reviews; and</p> <p>Inclusion of process to be undertaken into existing 'Supply Chain Management System' documentation for the Project.</p> <p>Signed statements from contractors</p>	<p>Prior to procurement from major suppliers.</p>	<p>Qaiwan Group</p> <p>EPC Company</p>
2.15	<p>Maintain database of employees and sub-contractor employees showing age of employees, social security number, identity card number, gender, nationality and home town.</p>	<p>IFC PS2</p> <p>Turkish Labour Law Article-75</p> <p>Personnel file of the employee</p>	<p>Database available for review by external monitors.</p>	<p>Throughout the Project.</p>	<p>Qaiwan Group</p> <p>EPC Company</p>
PS 3 - Resource Efficiency and Pollution Prevention					
3.1	<p>Noise Monitoring/</p> <ul style="list-style-type: none"> undertake monthly noise reporting (at sensitive receptors) during construction if night time working proposed , then obtain permit from the Local Environmental Committee and Develop Noise Management plan as part of ESMMP 	<p>Turkish Regulation on Assessment and Management of Environmental Noise</p> <p>Good Practice</p> <p>IFC PS 3</p> <p>IFC EHS Guidelines</p>	<p>Monthly ESMS reporting by Project Company showing compliance with the relevant IFC Guidance.</p> <ul style="list-style-type: none"> Monthly noise monitoring reports night-time noise assessment (if required) Noise management plan in place 	<p>Monthly reporting</p> <p>During the construction</p>	<p>Qaiwan Group</p> <p>EPC Company</p>

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
3.2	Water/Wastewater Monitoring/ Project Company to monitor and report monthly to the LTA showing compliance with the relevant IFC Guidance.	IFC PS3 Good Practice IFC EHS Guidelines Turkish Groundwater Law No. 167 Turkish Regulation on Surface Water Control	Site observation during LTA construction monitoring to assess compliance with IFC guidance. Monthly ESMS reporting by Project Company to the LTA showing compliance with the relevant IFC Guidance <ul style="list-style-type: none"> No discharges of untreated wastewater to the receiving environment Compliance with IFC Guidance Implement measures to prevent / reduce / control impacts to groundwater and surface water as a result of spills of fuel, lubricants and other chemicals. Store fuels and oils in bunded containers with 110% capacity. Ensure drip-trays are in place where fuels or oils are stored or used. Identify a designated bunded refueling location Provide training to drivers and equipment operators in proper fuel management. 	Monthly Reporting During the construction	Qaiwan Group EPC Company
3.3	Waste/ Construction Waste Management Plan to include: <ul style="list-style-type: none"> Recyclable wastes will be collected separately in suitable containers and temporarily stored in the Waste Storage Area. Recyclables will be disposed off to a licensed recycling facility. 	IFC PS3 Good Practice IFC EHS Guidelines	Site observation during LTA construction monitoring to assess compliance with IFC guidance Monthly ESMS reporting by Project Company showing compliance with the relevant IFC Guidance. Waste transfer certificates during construction phase.	Monthly Reporting During the construction	Qaiwan Group EPC Company
3.4	Air Quality/ <ul style="list-style-type: none"> Truck speed will be limited to 	IFC PS3	Site observation during LTA construction monitoring to assess compliance with IFC guidance	Monthly reporting	Qaiwan Group

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
	30 km/hour. <ul style="list-style-type: none"> Water spraying for unpaved roads will be undertaken Trucks will be covered when transporting materials. Wind barriers will be established (if needed) in case of windy seasonal conditions. Water spraying system (if needed) will be established and continuously operated for crusher operations, especially during dry and windy conditions. The drop height of potentially dust generating materials will be kept as low as possible and stockpiles sprayed Regular inspection and maintenance of construction plant and equipment will be conducted. Regular measurement of exhaust emissions will be performed. Third party monitoring to be undertaken by accredited laboratory on a monthly basis in relation to PM₁₀. 	Turkish Regulation on Industrial Air Pollution Control Turkish Regulation Control of Exhaust Gases	Monthly ESMS reporting by Project Company showing compliance with the relevant IFC Guidance. <ul style="list-style-type: none"> Monthly dust monitoring reports 	During the construction	EPC Company
3.5	Hazardous Waste <ul style="list-style-type: none"> Hazardous waste will be collected separately at closed containers (where available) suitable for the chemical components of the waste. 	IFC PS3 Best Practice IFC EHS Guidelines	Site observation during LTA construction monitoring to assess compliance with IFC guidance National Waste Transfer Forms and quantity of the hazardous wastes at the site provided within the monthly ESMS reporting.	Monthly reporting During the construction	Qaiwan Group EPC Company

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
	<ul style="list-style-type: none"> These waste stored at separate places in the Hazardous Waste Temporary Storage Area to be established according to the current legislation. Hazardous wastes will be stored in this area for at most six months. Hazardous wastes will be sent to the licensed hazardous waste incineration facilities or recycling facilities via licensed transportation companies. 		<p>Annual Waste Declaration Forms</p> <p>Hazardous wastes will be disposed of into the nearest and most appropriate waste disposal facility. The location of this disposal facility must be decided with the Bazian Municipality.</p>		
3.6	<p>Hazardous Material Storage to be in compliance with IFC Guidance/ Project Company will prepare procedures for the storage of hazardous materials during the construction and operational phases of the project to ensure that hazardous materials will be stored in line with IFC Guidance. In addition a register of hazardous materials stored on site should be kept by Project Co. LTA will review and approve procedures for hazardous material storage.</p> <p>Project Company will seek to avoid, reduce or eliminate the use of hazardous substances and materials, and will consider the use of less hazardous substitutes for such substances and materials to protect human health and environment from</p>	<p>IFC PS3 Good Practice IFC EHS Guidelines</p>	<p>Procedures for storage and use of hazardous materials as a part of ESMS.</p>	<p>Develop prior to financial close 6 months prior to operation (for operation phase)</p>	<p>Qaiwan Group EPC Company</p>

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
	their potential harmful impacts.				
PS 4 - Community Health, Safety, and Security					
4.1	<p>Implement community health and safety measures in construction phase (for example, EPRP, Traffic Safety Plans, Awareness raising campaign regarding risk related to the movement of heavy vehicles in the area.).</p> <p>Implement Traffic Safety Measure for communities</p> <p>i) Develop an adequate construction traffic management plan and implement control measures to prevent injury to third parties (communities).</p> <p>ii) Implement an awareness raising campaign with local stakeholders regarding the risks related to the movement of heavy vehicles and increased traffic in the area.</p> <p>iii) Develop an Emergency Response Plan that will provide details of what will happen in the case of a major traffic related incident and define roles and responsibilities</p>	<p>IFC PS4</p> <p>International standards including WHO limits, IFC Environmental, Health and Safety General Guidelines; Turkish law</p>	<p>Site observation during LTA construction monitoring</p> <p>Record of any traffic incidents and complaints</p> <p>Monthly ESMS reporting with accident information</p> <p>Grievances received about access problems</p> <p>Vehicle maintenance checks regularly carried out and documented by an accredited service provider (follow routine maintenance schedule)</p>	Monthly reporting	Qaiwan Group EPC Company
4.2	Develop EPRP for operational phase in collaboration with relevant local authorities.	IFC PS4	EPRP	Prior to operational phase (six months before the operation)	Qaiwan Group EPC Company
4.3	Provide security policy and plan detailing location of the project units	IFC PS4	Health and Safety and Security policy and plan.	Prior to operational phase (six months before operation).	Qaiwan Group EPC Company

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
4.4	<p>Disclose EPRP to communities in line with IFC PS4.</p> <p>Update communities and local authorities if plans change.</p> <p>Carry out regular drills/exercises of emergency measures.</p>	IFC PS4	<p>EPRP</p> <p>Evidence of disclosure and updates (EPRP to be added at web page)</p> <p>Records of drills.</p> <p>Document drill practices reported in monthly progress reports</p>	<p>Prior to construction CP to first Draw Down</p> <p>On-going</p>	Qaiwan Group EPC Company
4.5	<p>Document discussion of any identified impacts, risks and mitigations with communities during project preparation and at least annually thereafter.</p>	IFC PS4	<p>Records of meetings to be kept on file.</p>	<p>Continuously during construction</p>	Qaiwan Group EPC Company
4.6	<p>Implement a third party life and fire safety (L&FS) audit</p> <p>The Sponsor must hire an L & FS expert; is to be appointed to oversee the preparation and implementation of an L & FS Master Plan.</p> <p>All provisions for access of disabled people are in place in compliance with international standards</p>	<p>IFC EHS Guideline</p> <p>NAFS</p>	<p>A third party audit report</p>	<p>Prior to Operation</p>	Qaiwan Group
PS 5- Land Acquisition and Involuntary Resettlement					
5.1	<p>Based on the review and assessment (action 5.1 pre-investment phase), proposal of measures to meet any gaps in the government managed expropriation process.</p>	IFC PS5	<p>ESIA/ESMMP; and</p> <p>If necessary, develop Supplemental Resettlement Plan or Livelihood Restoration Framework in line with, IFC PS5 and subject to Lender's approval.</p>	<p>Prior to any further displacement for the Project.</p>	Qaiwan Group
PS 8- Cultural Heritage					

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
8.1	Implement chance find procedures	IFC PS8 Turkish Regulation on Protection of Cultural and Natural Properties	Chance find procedure to be present in ESMS	Throughout the construction phase	Qaiwan Group EPC Company
PS1/ PR 10-Information Disclosure and Stakeholder Engagement					
10.1	Implementation of Project Performance Grievance Mechanism. Put grievance mechanism contact details on publications such as leaflets and signage and make available during public and other meetings (such as on a presentation slide, or on a grievance form).	IFC PS1	Grievance Log Records of correspondence Evidence of grievance mechanism contact details on leaflets, signage and other public material.	Throughout the construction	Qaiwan Group
10.2	Documentation of all consultation and information disclosure to be kept on record.	IFC PS1	Consultation activity log; and minutes of meetings.	Continuously	Qaiwan Group
10.3	Annual reporting to the Lender on implementation of ESMS and any new impacts and risks identified to affected communities.	IFC PS1	Evidence of disclosure and availability (web page etc) Reports available to external monitors	Annually	Qaiwan Group

4 OPERATIONAL PHASE

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
PS 1 - Environmental and Social Appraisal and Management					
1.1	Develop and Implement Project Specific Environmental and Social Management System and EHS Training Programme	IFC PS1 & PS2 IFC EHS Guidelines Turkish Environmental Legislation	<p>Project specific environmental and social management system (ESMS) will be established. As part of it, the system will include the following site specific procedures/plans:</p> <ul style="list-style-type: none"> • GHG and Air Quality Management Plan • Emergency preparedness and response plan • Hazardous material storage plan, • Spill response plan, • Waste management plan, • Occupational health and safety (OHS) plan and Security policy and plan • Grievance Procedures (workers and community) • Cumulative Impact Management Plan. <p>Organizational chart to be updated with Environmental, Health, and Safety (EHS) chief name, with defined roles and responsibilities. Training programme and records showing that the employees are adequately trained so they have the knowledge and skills to perform their work effectively.</p> <p>Training plan</p>	Six months prior to operation Implement ESMS throughout operation phase. Quarterly reporting	Qaiwan Group (Internal Environmental Auditor of Qaiwan Group)

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
			Quarterly ESMS reporting to Lender/Lender Technical Advisor showing compliance with the relevant IFC Guidance.		
1.2	All relevant commissioning tests have been carried out successfully. Obtain all necessary approval for the commencement of power generation Update all necessary permits on time	IFC PS 1	Approval Documentation to be submitted to Lender	Once the HPP becomes operational	Qaiwan Group
1.3	Contractor Compliance - include clauses in contracts requiring compliance with Project HR Policy, ESMMP, ESAP, EHS and other Plans linked to ESMMP	IFC PS1 & PS2	Review of the updated contract requirements by the LTA to ensure that it contains appropriate clauses that require the contractors and sub-contractors to comply with the EHS requirements to manage the environmental and social risk and adhere to mitigation measures and actions identified and set out in the ESMMP and ESIA	Prior to operation	Qaiwan Group
1.4	Sustainable Procurement	IFC PS1 & PS2	Project Company to adopt procedures for sustainable procurements and include environmental and social requirements for the provision of future services.	Prior to operation	Qaiwan Group
1.5	Life and Fire Safety	IFC PS2 IFC EHS Guidelines International best practice IFC PS4	As a follow up to the construction phase Life and Fire Safety audit, Qaiwan Group to develop a L&FS master plan in accordance with IFC EHS Guidelines. This will require a suitably qualified professional to prepare the aforementioned plan and conduct a review as part of the project completion test at the time of life & fire safety systems testing and commissioning and certification	Prior to operation	Qaiwan Group
1.7	Permits and licenses	IFC PS1 Turkish Environmental Legislation	Proof of documentation for: Environmental Permits and Licenses	During the commissioning and operation	Qaiwan Group

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
PS 2 - Labour and Working Condition					
2.1	Appointment of HR Manager for the Project for operational phase.	IFC PS2	HR Manager as a member of project staff and shown on organisation chart.	Prior to commencement of operation	Qaiwan Group
2.2	Develop worker contracts or an HR method statement describing that the job description for workers, employment requirements of Turkish Law will be obeyed and HR Policy and workers handbook will be the annex of the method statement.	IFC PS2 Turkish Labour Law Article 8: HR Policy, Types and Termination	Template worker contracts submitted to TA for review	Prior to commencement of operation	Qaiwan Group
2.3	Payroll checks by Qaiwan Group against issues such as sub-contractor wage rates, payment of benefits and timely payments.	IFC PS2 Turkish Labour Law Article-61: Social insurance contributions	Short quarterly reports available for review by external monitors. (More frequent if necessary).	At commencement of operation and maintain regularly throughout Project.	Qaiwan Group
2.4	HR Policy to all workers covering all the requirements of IFC PS2.	IFC PS2	HR Policy available for review. Workers state that they have seen policy when interviewed. Inclusion of summary of HR Policy and Worker's Handbook in induction training given to all staff. HR Policy displayed on selected notice boards around site.	Prior to commencement of operation and implement throughout the operation.	Qaiwan Group
2.2	Ensure all workers are aware of content of workers agreements.	IFC PS2 Turkish Labour Law Article 5: The principle of equal treatment	Signed workers agreement	Throughout the operation	Qaiwan Group
2.5	Assign OHS Manager and Revise OHS Plan for operational phase.	IFC PS2 Turkish OHS Law	Assign OHS Manager in the O & C Company with clear responsibilities Revised plan.	Prior to commencement of operation and implement throughout the operation.	Qaiwan Group Provincial Directorate of Environment and

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
		(#6331)	Report promptly any material OHS issues to Lender Quarterly ESMS reporting to Lender/Lender Technical Advisor showing compliance with the relevant IFC Guidance.		Urban Planning
2.6	<p>Develop method statements for each work activity for operation.</p> <p>Maintain records of safety and induction training and the names of first aiders.</p> <p>Make staff aware of whom first aiders are.</p> <p>Maintain accident and incident logs.</p> <p>Qaiwan Group safety officers to carry out regular inspections of site safety and PPE use on site.</p> <p>Keep records of next of kin contact details in each worker's personnel file.</p>	<p>IFC PS2</p> <p>IFC General EHS Guidelines;</p> <p>Turkish OHS Law (#6331)</p>	<p>Method statements;</p> <p>Training records;</p> <p>List of first aiders and evidence that workers know who they are;</p> <p>Accident and incident logs;</p> <p>Safety inspection records; and</p> <p>Personnel files.</p>	Start of operation.	Qaiwan Group
2.7	<p>Require sub-contractors to adhere to Qaiwan Group's OHS policies and plans through contract clauses.</p> <p>Require sub-contractors to report accidents, incidents and safety non-compliances.</p> <p>Require sub-contractors to maintain records of their employee's next of kin contact details.</p>	<p>IFC PS2</p> <p>Turkish OHS Law (#6331)</p>	<p>Contracts;</p> <p>Sub-contractor accidents, incidents and non-compliances kept on record; and</p> <p>Sub-contractor personnel files.</p>	Start of operation.	Qaiwan Group
2.8	<p>Ensure all workers are informed of the grievance mechanism and that it is easily accessible to them.</p> <p>Commit to resolving grievances within specified timeframes.</p> <p>Commit to taking action to prevent recurrence of grievances where appropriate.</p>	<p>IFC PS2</p> <p>Turkish Labour Law Article-5: The principle of equal treatment</p>	<p>Maintain records of grievances and how they are closed out; and</p> <p>Evidence of how workers are informed of grievance mechanism.</p>	Start of operation.	Qaiwan Group

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
2.9	Require sub-contractors to manage their workers in line with the HR Policy by including HR Policy in tender documentation and contractual agreements.	IFC PS2	Tender documents and contracts.	Throughout construction and operation	Qaiwan Group
2.10	Include pass/fail factor for contractors based on their health and safety performance when reviewing bids. Carry out checks on sub-contractors to verify they are reputable and legitimate enterprises prior to entering into contracts and document this process.	IFC PS2 Turkish OHS Law (#6331)	Records showing process and results of sub-contractor reviews.	Prior to signing contracts with sub-contractors.	Qaiwan Group
2.11	Carry out checks on major suppliers to inquire about life-threatening issues, the use of child and forced labour and take necessary steps to address in line with IFC PS2. All contractors will sign an anti-corruption and responsible procurement policy.	IFC PS2	Records showing process and results of supplier reviews; and Inclusion of process to be undertaken into existing 'Supply Chain Management System' documentation for the Project. Signed statements from contractors.	Prior to procurement from major suppliers.	Qaiwan Group
2.12	Maintain database of employees and sub-contractor employees showing age of employees, social security number, identity card number, gender, nationality and home town.	IFC PS2 Turkish Labour Law Article-75: Personnel file of the employee:	Database available for review by external monitors.	Throughout the Project.	Qaiwan Group
PS 3 - Pollution Prevention and Abatement					
3.1	Pollution Prevention/ Procedures and ESMMP to be updated to incorporate mitigation measures necessary to maintain compliance with the Lenders Environmental and Social	IFC PS1 & PS 3 Best Practice	Project Company to establish or update the operational environmental management system to the equivalent standard of ISO14001. Project Company to assign Environmental Manager for the Operation with clear responsibilities	Within a year of operation Quarterly reporting	Qaiwan Group

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
	Standards set out in the ESMMP and ESIA and IFC EHS Guidelines in relation to <ul style="list-style-type: none"> • Wastewater; • Air quality; • Noise; • Waste; • Hazardous waste; and • GHG emissions. 		Report promptly on any environmental material issues to Lender Quarterly ESMS reporting to Lender/Lender Technical Advisor showing compliance with the relevant IFC Guidance. Site observation during LTA operation monitoring to assess compliance with IFC guidance		
3.2	Operation phase - Waste Management Ensure that there is a Waste Management Plan in compliance with national environmental, health and safety requirements and the IFC's Guidelines on Environmental, Health and Safety. Ensure that all types of waste reduced at the source and separated at the point and handled/transferred/disposed in accordance with national law (April 30th, 2007). Annual visit to the final disposal area/Company dealing with the final disposal	IFC PS1 & PS 3 Best Practice	Site observation during LTA operation monitoring to assess compliance with IFC guidance National Waste Transfer Forms Annual Waste Declaration Forms	During the operation. Quarterly Reporting	Qaiwan Group
3.3	Operation phase - Wastewater Management Ensure that wastewater is treated before discharged for four different types of	IFC PS1 & PS 3 Best Practice	Quarterly ESMS reporting to Lender/Lender Technical Advisor showing compliance with the relevant IFC Guidance. Compliance with the IFC Guidelines wastewater	During the operation. Quarterly Reporting	Qaiwan Group

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
	<p>wastewater:</p> <p>Anaerobic septic tanks will be built and used to treat domestic wastewater from operation staff before the effluent is sent to the plant drains collection pond. Sludge from these tanks will be removed via third party.</p> <p>Excess wastewater from the boilers will contain anti-corrosive chemicals and will be at an elevated temperature. The pH of this water will be naturalized and sent to plant drains collection pond.</p> <p>Backwash from the reverse osmosis process will be used to demineralize the water for the boilers. This backwash will also be naturalized before being sent to the same pond.</p> <p>Oily water, produced in different forms throughout the Project will be sent to an oil separator, where the oil waste will be removed and sent to the local refinery and the remaining water will be sent to the same pond.</p>		disposal limits.		

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
3.5	Hazardous Material Storage/ Project Company is to provide its hazardous materials register and methods	IFC PS3 Good Practice IFC EHS Guidelines	Project Company is to provide its hazardous materials register and methods of hazardous materials storage and pollution prevention measures in order to confirm compliance with national legislation and international best practice. Quarterly ESMS reporting to Lender/Lender Technical Advisor showing compliance with the relevant IFC Guidance.	Prior to operation	Qaiwan Group
3.6	Record-keeping on environmental accidents and actions taken	IFC PS3	Log on material environmental issues and the way it is addressed.	Immediately after the commencement of power generation	Qaiwan Group
PS 4 - Community Health, Safety and Security					
4.1	Implement updated community health and safety measures in operational phase (e.g. EPRP, Child targeted traffic safety campaigns) Occupational health and safety management system to be updated for all staff with adequate training on exposure to vector-borne diseases. Update communities and local authorities if these plans change. Ensure emergency contact details are regularly updated.	IFC PS4 International standards including WHO limits, IFC Environmental, Health and Safety General Guidelines; Turkish law	Site observation during LTA operation monitoring Quarterly reports with accident information (0 accidents target) Grievances received about access problems (0 target)	Throughout the operation	Qaiwan Group
4.2	Document discussion of any identified impacts, risks and mitigations with communities as necessary during operation.	IFC PS4	Records of meetings to be kept on file.	Continuously during operation	Qaiwan Group

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
4.3	Background checks on all staff to be employed in serving the public to check for past abuses.	IFC PS4	Records of checks kept in individual's personnel files.	Prior to commencement of operation and during the every hire.	Qaiwan Group
4.4	Update security policy and plan.	IFC PS4	Updated security policy and plan.	Prior to commencement of operation.	Qaiwan Group
4.5	A management plan for security personnel will be developed and implemented by the Project Company outlining expectations around security, in line with international and Turkish law.	IFC PS4	Updated security policy and plan.	Prior to commencement of operation.	Qaiwan Group
4.6	Ensure the health and safety file is kept up to date with relevant health and safety information and relevant parts reviewed by contractors undertaking any maintenance, construction or demolition	Turkish OHS Law (#6331)	Report in the Quarterly ESMS Report to Lender information on health and safety file updates	Continuously during operation	Qaiwan Group
4.7	The Project Company must have regular maintenance and operational check of L&FS provisions during operational phase.	IFC PS4	Record of the checks and report in the Quarterly ESMS Report.	Periodically	Qaiwan Group
4.8	Update security policy and plan.	IFC PS4	Updated security policy and plan.	Prior to commencement of operation.	O&M contractor
PS1/ PR 10-Information Disclosure and Stakeholder Engagement					
10.1	SEP to be updated when the Project moves into the operational phase including adequate venues, ways to communicate with communities	IFC PS1	Updated and disclosed SEP	Prior to operational phase	Qaiwan Group
10.2	Qaiwan Group implements grievance mechanism. CLO to maintain records of grievances and correspondence with complainants.	IFC PS1	Grievance log; Correspondence with complainants; Evidence of grievance mechanism contact details on leaflets, signage and other public material.	Continuously during operation	Qaiwan Group

No	Issue/Action	Legal Framework	Deliverable / Completion Indicator	Deadline	Implementation Responsibility
	Put grievance mechanism contact details on publications such as leaflets and signage and make available during public and other meetings (such as on a presentation slide, or on a grievance form).				
10.3	Documentation of all consultation and information disclosure to be kept on record.	Equator Principle 5 IFC PS1	Consultation activity log; and Minutes of meetings.	Continuously during operation	Qaiwan Group
10.4	Annual reporting on implementation of ESAP/ ESMS.	IFC PS1	Reports available to external monitors	Annually	Qaiwan Group