

Environmental and Social Action Plan

(Prepared by IFC September 12, 2014; updated by EBRD July 2015)

No	Action	Completion Indicator	Deadline
1: Assessment and Management of Environmental and Social Risks and Impacts			
1.1	<p>ESMS implementation: Gama Enerji A.S. (GEAS) will ensure that its Environmental and Social Management System (ESMS) is implemented at all assets and incorporates reference to IFC Performance Standards PS 2-8 and WBG EHS Guidelines, and EBRD 2014 ESP and PRs including but not limited to: development of appropriate E&S management plans and operational procedures, provisions for relevant training and implementation of appropriate E&S monitoring programs. Specific E&S operational procedures to be developed by the company include:</p> <ul style="list-style-type: none"> a) EHS due diligence for all new assets – against national, IFC PSs and WBG EHS Guidelines as well as EBRD PR 3, namely the EU Industrial Emission Directive (IED) b) Stakeholder engagement - including identification and mapping of key stakeholders, procedures for disclosure of project information and associated consultation, and development of appropriately scaled grievance mechanisms, as per IFC PS 1 and EBRD PR 10; c) Contractor EHS performance management and monitoring; d) Large scale retrenchment planning and documenting (i.e. more than 20 persons at a time), in accordance with PS/PR 2; e) Waste management, in accordance with PS/PR 3; f) Sediment and debris disposal from HEPs, in accordance with PS/PR 3; g) Project security risk identification and management, as per PS4/PR 2; h) Land acquisition management and documentation in accordance with PS/PR 5, to applicable facilities; i) Cultural heritage assessment, relevant reporting and management, including a 'chance finds' procedure, as per PS/PR 8. j.) undertake a BAT Assessment at the feasibility stage of new energy assets excluding iç Anadolu CCGT in line with EU IED requirements and EBRD PR 3. k.) undertake baseline biodiversity assessment for each project, inclusive of bird/bat/fish assessments in line with EIA report. For WEP and HEP Projects this will include an Ecosystems assessment. 	Submission of evidence of complete implementation (e.g. documentation of the ESMS, plans, procedures and programs, training logs, monitoring records) for a sample of existing and new assets.	December 2015
1.2	<p>Environmental, Health & Safety Capacity: GEAS will:</p> <ul style="list-style-type: none"> a) Assign a Quality, Environmental, Health and Safety Coordinator at corporate level, with relevant expertise and experience in managing E&S issues of company assets b) Hire or contract a Social Development Specialist to manage the social impacts of project c.) undertake a commissioning audit within 2 years of each commissioning any plant and provide results to IFC and EBRD. 	Submission of the job description and CV of the hired/assigned person to IFC and EBRD	December 2015
1.3	<p>Implement formal Environmental Management System (EMS) compatible with ISO 14001 and Safety Management System (SMS) compatible with OHSAS 18001 standard requirement to ensure:</p> <ul style="list-style-type: none"> • common EHS Policy and procedures at all operations • one overall ESH co-ordinator to help implement common policies and keep a constant approach to implementation • EHS permitting/compliance person • encourage best EHS practice at all Gama Enerji assets • further safety improvements with special focus on behavior based safety and 	<p>Developed EMS/SMS procedures and policies compatible with ISO 14001/OHSAS 18001</p> <p>Attain certification within 2 years of each thermal power plant commissioning</p>	December 2015

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	contractors safety		
1.4	GEAS will undertake external social impact audits of company projects under development and construction to identify and address any performance gaps vis-a-vis IFC and EBRD requirements.	Submission of audits for review and approval to IFC and EBRD	(December 2015
1.5	GEAS will standardize the content of emergency preparedness and response plans for all assets in which it has majority ownership, commensurate with the type, scale and risks associated with each project, including all future projects.		November 2015
1.6	<p>For any wind farm GEAS will undertake a minimum 1 year bird ad bat monitoring to assess environmental impacts.</p> <p>Any wind farm will need to include a cumulative assessment of all existing and planned wind farm projects in the area within a 20 km radius.</p> <p>Any wind farm above 220 MWe within the Bosphorus and Sea of Marmara area will require a radar system/active wind turbine management system.</p> <p>For each project Gama will review KBA (Key Biodiversity Areas) for any project. The online version of Key Biodiversity Areas (Önemli Doğa Alanları) inventory in Turkish is available on: http://dogadernegi.org/yayinlarimiz.aspx</p> <p>Any wind farm located near a sensitive bird habitat or bird migratory route requires prior approval of IFC and EBRD, and may need to include a radar, independent ontological monitoring specialist and an active wind turbine management plan including shut down system. (</p>	Submission of assessment reports to EBRD.	For new projects
1.7	<p>For all the new projects of A category:</p> <ul style="list-style-type: none"> • undertake an Environmental and Social Impact Assessment in compliance with EU legislation inclusive of any meaningful public consultation in line with EBRD and IFC guidance for A category projects • conduct Environmental and Social Due Diligence • develop a Stakeholder Engagement Plan (SEP) and Non-Technical Summary (NTS). Publish this locally in Turkish and English, as appropriate to allow meaningful public consultation. • 	Summary in annual report(s)	Annually
1.8	<p>Any new plant to be constructed post 2015 to be designed to comply with EU environmental standards, notably the EU Industrial Emissions Directive (IED). The Company will need to take into account international best practice when constructing or modernizing installations on site. The need for abatement will be based on environmental impact and air quality data to ensure public health is protected.</p> <p>All thermal power plants to be equipped with continues emission monitoring systems (CEMS)</p>	Summary in annual report(s)	Annually
2: Labour and Working Conditions			

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2.1	GEAS will develop a corporate Human Resources policy that accommodates local laws and regulations in each project location and the key requirements of IFC PS 2 and EBRD PR 2. This will be made available to all direct employees and, as a reference requirement, to all contractors. The policy will incorporate a well-structured worker grievance mechanism for both direct and contracted employees.	Submission of the HR Policy to IFC and EBRD.	December 2015
2.2	Maintain best practice for EPC contractors (and their subcontractors) in line with corporate EHS policies, all national environmental and health and safety standards as well as EBRD Performance Requirements. Ensure best practice EHS standards are employed on site by EPC contractors, aimed at limiting accidents or poor treatment of workers. The EPC contractors will ensure fair treatment of workers. The best practice shall be used on all projects. The procedure shall include as a minimum the occupational health and safety standards for: <ul style="list-style-type: none"> • Selection and appointment of contractors and any sub-contractor they appoint; • Safety performance reporting while working on site for contractors and subcontractors they appoint, including accident reporting; • Selection, approval, serviceability and operation of work equipment brought onto site; • Communication of health and safety information to all workers affected by their work; • Dedicated contractor management person • Regular inspections/audit and oversight of the contractors work and • Consultation with other contractors where work may potentially overlap. 	Reports of internal audits of EHS performance	December 2015 and throughout project implementation
3: Resource Efficiency and Pollution Prevention and Control			
3.1	GEAS will monitor noise levels at the nearest sensitive receptors to Ic Anadolu CCGT and implement any reasonable corrective actions in line with industry practices to comply with WBG EHS Guidelines, EBRD and EU environmental standards.	Submission of monitoring results and corrective actions plan (if required) to IFC and EBRD	March 2017 for Ic Anadolu CCGT
3.2	Gama will provide detailed information regarding the design and performance of the wastewater treatment system of Ic Anadolu CCGT against applicable WBG EHS Guidelines, EBRD PRs, Turkish and EU environmental standards prior to installation.	Submission of design and performance information to IFC and EBRD Information in annual report to confirm final design	July 2015
4: Community Health, Safety and Security			
4.1	Gama will provide the implementation plan, operation and management plan and emergency preparedness procedures for Lamas and Çakırlar HEPs where they exist.	Submission of outline, plans, procedures and safety inspection summaries to IFC	December 2015
4.2	Gama will hire external consultants to assess the risk in the projects where armed security forces are used. If the projects are under BOT basis, the outcomes of the risk assessment report shall be discussed with the project owner and necessary action plan will be prepared in accordance with project agreement and in compliance with PS4 requirements. External consultants may be required.	Risk assessment and armed security usage policy shared with IFC and EBRD. MOU or equivalent (if any) with respect to use of public security shared with IFC and EBRD.	As required.

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4.3	For all the power facilities develop the Emergency Preparedness and Response plans to consider the possible site-specific impacts on/from the neighbor areas, communities and industrial sites. This is also to include emergency communication instruments.	Emergency response plans	December 2015
5: Land acquisition, involuntary resettlement and economic displacement			
5.1	Gama will document of the findings and land acquisition requirements determined in the land acquisition and expropriation plan to be prepared for 380 kV Transmission Line which will connect Ic Anadolu CCGT to national grid, which is the associated facility of the plant, and assess the processes followed by the related authority to confirm that land acquisition for associated facilities is in compliance with the requirements of PS5/PR5	Submission of summary and assessment document to IFC and EBRD	December 2015
5.2	<p>Develop a comprehensive Corporate Land Acquisition and Resettlement Framework (LARF), that sets out same approach, principles, procedures and institutional responsibilities that will be applied in preparation of Land Acquisition and Resettlement Plans (LARP) for individual projects developments. The LARF will include the requirements for avoidance or minimisation of displacement; meaningful consultations; socio-economic assessment; compensation process; grievance mechanism for the. This corporate LARP will set out the same approach to all resettlement and livelihood loss.</p> <p>Publish the LARF locally and make available in each community in Turkish and English to allow for meaningful consultations.</p> <p>For associated facilities, such as power lines, which will be developed by TEIAS and gas pipeline by BOTAS, the Company will monitor the implementation of the LARF/LARP.</p>	<p>LARF document</p> <p>Provide update in annual report on the CCGT project</p>	December 2015
6: Biodiversity Conservation and Sustainable Development of Living Natural Resources			
6.1	if deemed to be necessary conduct adequate biodiversity studies for all the new projects (e.g. ornithological (bird) studies for all the wind farms, ichthyologic (fish) studies for hydropower plants) to consider all the possible migratory routes and develop alternatives and mitigation measures .	Summary in annual report(s)	As required
8: Cultural heritage			
8.1	<p>For every new project make an appropriate assessment of archaeological and cultural heritage at the EIA stage</p> <p>Develop the procedure of the chance findings treatment..</p> <p>No wind farm will be located on a Cultural Heritage site, or in a locally, nationally or internationally recognized protected area. No turbines to be located within 50 meters of the Antotesians wall.</p>	Summary in annual report(s)	December 2015
10: Information Disclosure and Stakeholder Engagement			

No	Action	Completion Indicator	Deadline
10.1	<p>Develop the comprehensive Stakeholder Engagement Plan in line with IFC guidelines Stakeholder Engagement – A Good Practice Handbook and EBRD PR 10 and engagement strategies to complement, enhance and formalize ongoing stakeholder engagement and reporting of social and environmental issues.</p> <p>The SEP should include a formal Grievance Mechanism for both internal (workers, subsidiaries) as well as external (local community, contractors) stakeholders, as well as information disclosure and public consultations strategy</p>	Maintain current Grievance system, and report on any major grievances in annual report	November 2015
10.2	For all the new project develop the disclosure package which should include, as a minimum: ESAP, NTS, SEP and complaints mechanism and disclose it on the Company's website in Turkish and English.	Summary in annual report(s)	As required
10.3	<p>Provide to the Bank information on the Environmental, Social, Health and Safety (ESHS) matters as part of an annual ESHS report. During the construction periods provide a simplified report the Lender on the Project update and H&S issues as appropriate.</p> <p>The ESHS report should include:</p> <ul style="list-style-type: none"> • information on the status of the project, any changes to the project as well as information on environmental performance, mainly compliance with the contractual specifications as well as Turkish and EU environmental standards, • annual information on Greenhouse Gas emission (savings) from the Project • Information on compliance with the ESAP and provide information on any new projects or changes to planned investments at the plant • information on general environmental performance of the power plant this should include a summary of environmental KPI's (key performance indicators) • summary of any changes in Turkish law affecting Environmental or Social matters, directly related to the plant • a summary of any areas of non-compliance with Environmental Laws, or exceedances of the relevant permit levels and any proposed actions – please provide information on any fines or other penalties or pending prosecutions for environmental, health and safety or social matters • information on noise and air impacts from the power plant 	Summary in annual report(s)	Annually