

Draft Terms of Reference (TOR)

Environmental and Social Impact Assessment (ESIA)

For

the proposed Kosovo Power Project

comprising of (i) the development of a Lignite-Fired Power Plant (“Kosova e Re” Power Plant or KRPP) at Obiliq; (ii) rehabilitation of the 2x340 MW Kosovo B Power Plant at Obiliq; (iii) the development of a new open cast lignite mine at Sibovc South; and (iv) associated infrastructure, such as electrical interconnections upgrades at Kosovo B substation, a potential water buffer reservoir and mine area where ash will be disposed.

Background of the proposed Project

Kosovo’s energy and mining sectors were once the mainstays of its economy. However, a decade of ethnic conflict left this industry in a dire state, and in a great need for rehabilitation and new investments. Kosovo’s energy sector relies on two lignite-fired power plants, known as Kosovo A and Kosovo B, which generate 98% of its electricity, and a small hydroelectric plant generating the remaining 2%. The existing lignite mines, Bardh and Mirash, which supply the power plants with fuel, are reaching reserve exhaustion, thus introducing the need for development of a new mine. Due to age, poor maintenance, and lack of investment, the existing generating capacities are not sufficient to meet the domestic demand for electricity, imposing the need for regular load-shedding.

Kosovo is also a participant of the Energy Community of South East Europe (ECSEE) treaty that establishes a regional electricity market governed according to European Union (EU) directives.¹ As a signatory to the treaty, Kosovo is committed to meet environmental standards of thermal power plants and mining, and mitigate social impacts, as outlined by various EU directives.

The World Bank previously assisted the Kosovo energy sector through the Lignite Power Technical Assistance Project (LPTAP), which supported the Government of Kosovo (hereinafter the Government) in the development of regulatory frameworks for energy sector investments and attracting qualified private investors to develop lignite mines and build new capacity for lignite thermal power generation guided by high standards of environmental and social sustainability. In addition, the World Bank has also financed the Energy Sector Cleanup and Land Reclamation Project (P096181) with the objectives, amongst others, to: address environmental legacy issues problems related to open dumping of ashes on land and enable the state owned mining company to free land for community development purposes currently taken by overburden material and enable KEK to remediate Kosovo A ash dump and remove hazardous chemicals from its former gasification site within the Kosovo A complex. In addition, considerable amount of analytical work has been carried out in the recent past, particularly the Strategic Environmental and Social Assessment², the European Agency for Reconstruction reports on Site Selection, and an Options Study (Development and Evaluation of Power Supply Options for Kosovo) that evaluated the different power supply options available to Kosovo (completed in December 2011) and disseminated in English and local language.

The Kosovo Energy Strategy for the period 2009-2018 included recommendations from series of studies that have been undertaken over the last decade by international, regional and local consultants focusing on mining, generation, power sector restructuring, legal, environmental and social issues in the power sector. The Government is in the process of engaging the private sector to eventually replace the state-owned Kosovo

¹ See *Treaty establishing the Energy Community*, October 25, 2005.

² A Strategic Environmental and Social Assessment (SESA) for a potential new power plant was prepared in 2008 under the FY07 Bank-financed Lignite Power Technical Assistance (LPTAP) Project which considered issues associated with the possible development of a new plant with a generation capacity of 2000 MW. In line with the government’s thinking of 2008, such a plant was intended to serve the needs of Kosovo consumers as well as supply electricity to the regional electricity market, which faces large energy and capacity shortages. Since then, Government decided to reduce the size of the proposed power generation plant to one consistent only with domestic requirements.

Energy Company (hereinafter KEK) and is preparing the following two transactions:

(i) The proposed Kosovo Power Project which is foreseen to consist of a:

- Build-own-operate a new lignite fired power plant (a range of up to 2x 280-320 MW Gross) called KRPP (Kosova e Re Power Plant);
- Rehabilitate-own (or-lease)-operate the 2x340 MW Kosovo B power plant. KRPP will be an extension of the Kosovo B site and will share some facilities;
- Build-own-operate-transfer a new open-cast lignite mine (Sibovc South Lignite Mine); and
- Other associated infrastructure, such as the electrical interconnection upgrades at the Kosovo B substation, a potential water buffer reservoir and the mine area where the ash will be disposed.

(ii) Privatization of KEK's electricity distribution and supply business.

The commissioning of KRPP will allow and initiate the closure and decommissioning of Kosovo A. The closure and decommissioning of Kosovo A is planned to be undertaken with EU financing in accordance with EU environmental requirements, and will be subject to a separate environmental assessment process and Environmental Management Plan.

The World Bank Group's *Strategic Framework on Development and Climate Change* (SFDC) is applicable to the proposed Bank Group participation in the proposed Kosovo Power Project. Under the Operational Guidance to World Bank Group Staff (March 2010), a SFDC External Panel of Experts has reviewed compliance of the proposed Kosovo Power Project with the six criteria under the SFDC for coal-based projects, which include the technology to be employed. Based on the positive conclusion of this External Panel of Experts, the World Bank is preparing a proposed Additional Financing to the Clean-up and Land Reclamation Project to support the Government of Kosovo with the management of environmental and social aspects for the proposed Kosovo Power Project as well as the continuation of the clean-up and land reclamation project activities. The Environmental and Social Impact Assessment under these Terms of Reference (TOR) is planned to be financed from this Additional Financing. This Environmental and Social Impact Assessment (ESIA) will be part of this Additional Finance and it will integrate the studies already carried out in the last years with the support of International Donors and KEK (see Annex 1).

Resettlement Plans and Compensation Framework

The Government has prepared and endorsed a Resettlement Policy Framework (RPF) and prepared a Resettlement Action Plan (RAP) for the Shala Neighborhood of Hade village (Shala RAP). The investor of the proposed Power Project will either: (i) assume responsibility for completion of the Shala RAP from the date of transfer or (ii) enter into a new RAP, fully consistent with the Government's Shala RAP and in conformity with the RPF, from the date of transfer. The investor may also be required to enter into other RAPs as needs arise (e.g., future villages or infrastructure rights-of-way), all of which must be fully consistent with the RPF prepared for New Mining Field.

RAPs for future foreseen resettlement associated with the proposed Power Project will also accurately identify the lands required for the project. The numbers, locations, and socio-economic conditions of the affected people will be fully documented, to assist the GOK in meeting acceptable international standards for compensation, which will be equivalent to requirements of World Bank Policy OP 4.12 and the RPF of the Government of Kosovo. The investor will dialogue with key Government authorities, including the Ministry of Environment and Spatial Planning, as required.

Past experience with resettlement in the area, particularly the partial resettlement of Hade in 2004 has made local communities distrustful of the resettlement process as consultation and transparency were lacking.

Objective of the ESIA

Normally, it is the responsibility of the developer, in this case the winning private sector bidder to prepare the Environmental and Social Impact Assessment for each of the separate sub-projects subject to national legal requirements.. For the proposed Kosovo Power Project, hereinafter the proposed Project or proposed KPP, the Government and the World Bank agreed to make efficient use of time from now until the award of that specific concession in order for the Government to commence the preparation of an Environmental and Social Impact

Assessment (hereinafter ESIA) for the proposed Kosovo Power Project. This ESIA, in line with this ToR, will be based upon environmental, social and other baseline data, specific site characteristics and project technical specifications and mitigation measures as applicable to power plants in line with EU Directives³; World Bank policies and Environmental, Health and Safety Guidelines; IFC/MIGA performance standards; Kosovo legislation and the specifications in the proposed Kosovo Power Project as presented in the Request for Proposals as submitted to the shortlisted bidders on March 7, 2012. Once the winning bidder and proposed technology are known, the ESIA will be finalized based on the specific technological design and based on the requirements of the legislation of Kosovo. This ESIA will be based upon these Terms of Reference (TOR) designed to meet Government and EU legislation and World Bank and IFC policies and standards, in particular the World Bank Policy on Environmental Assessment (OP/BP 4.01). The World Bank is currently considering the preparation of a Partial Risk Guarantee (PRG) for the proposed Kosovo Power Project. The ESIA will serve to inform a decision by the World Bank's Board of Directors on the PRG. The proposed Kosovo Power Project has been classified as a Category A under OP/BP 4.01, requiring a comprehensive ESIA with at least two public consultations.⁴ The ESIA will be prepared by independent international and national experts in these areas and TOR approved by the World Bank. The ESIA will be subject to public consultations on the Terms of Reference, the ESIA scoping report and the draft ESIA. The ESIA will be disclosed in-country in Albanian and Serbian and in the World Bank's Infoshop in English and an Executive Summary in English language will be submitted to the World Bank's Board of Executive Directors prior to the Board presentation of the PRG for the proposed Kosovo Power Project. An English Executive Summary will be submitted to the Board of Directors of the World Bank.

The objective of these TOR is to prepare the ESIA for the proposed Kosovo Power Project and associated infrastructure (such as electrical interconnections upgrades at Kosovo B substation, a potential water buffer reservoir and the mine where ash will be disposed) to meet the World Bank's requirements for making a decision on a Partial Risk Guarantee for the Proposed Kosovo Power Project. In addition, this ESIA will be prepared in compliance with national and EU legislation to commence environmental and social assessments that will be required for permitting and other authorization purposes of the proposed Project.

It is expected that the winning bidder of the KPP concession will be selected during the period of ESIA preparation. As a consequence and as noted above, the ESIA will start without knowledge of details on design details or technology choices etc. but instead will be based on the standards that have to be met. Being selected during ESIA preparation, the winning investor most probably will have the opportunity to inform ESIA preparation, and the consultants preparing the ESIA will be required thereafter to closely engage with the winning investor, especially in the preparation of draft Environmental Management Plans for construction and operations. However, this ESIA as stated is **not** intended to serve as the document to inform national permitting and other authorization, e.g. under the Kosovo legislation on Environmental Impact Assessment. The assessment documents required for the latter purpose will be prepared under the responsibility of the investor as a Supplemental ESIA prepared under a separate TOR. Therefore, it is expected that the ESIA prepared under this TOR can be used by the investor and should save time and reduce efforts in the permitting/authorization process. For this purpose, it is expected that the Environmental and Social Scoping Statement for this ESIA will also serve the investor's reporting needs and that this report will not have to be redone for the environmental assessment for national permitting purposes. In this TOR, when the terms 'ESIA' or 'ESSS' are used, they refer to the work to be completed under this TOR. Environmental and social impact statements to be prepared for permitting/authorization purposes under responsibility of the investor and after completed of the ESIA will be referred to as 'Supplemental ESIA'.

The ESIA will include all ancillary and off-site facilities and structures necessary for the development, operation, and future closure and decommissioning of the power stations and mine involved (KRPP and Kosovo B). Associated infrastructure includes, amongst others, the electrical interconnection upgrades at

³ In particular EU Directive 2001/80/EC on limitation of emissions of certain pollutants into the air from large combustion plants, EU Directive 2008/1/EC concerning integrated pollution prevention and control and EU Directive 2010/75/EC on industrial emissions which will come into force on January 1, 2016

⁴ If the IFC or MIGA should be engaged in the project by either financing the successful bidder for the concession or offering a MIGA guarantee, then it should be noted that the IFC/MIGA Performance Standards require an ongoing stakeholder engagement and consultation process beginning as early as possible in the project cycle and continuing for the life of the project.

Kosovo B substation, a potential water buffer reservoir and the mine area where the ash will be disposed as well as the access roads, connections to the grid, wastewater discharge treatment, storage areas etc, i.e. all structures necessary for the full functioning of the new lignite power plant and the rehabilitated Kosovo B power plant. Decommissioning of the Kosovo A power plant is outside the scope of these TOR.

Consultants will also prepare a water balance for the different uses of water from the Iber-Lepenc canal including forecast for the next 20 years and assess whether an upgrade of the canal would be required to ensure sufficient water for the power plant needs and other consumers of this water. If the upgrade of the canal would be required, the impact of the upgrade as well as mitigation and monitoring measures will be covered under this ESIA.

In addition to the impacts of the proposed Project activities in the project area and Kosovo, the ESIA will also investigate possible trans-boundary impacts and cumulative impacts through the combination of project impacts and background concentrations and impacts from other economic activities ('domino' impacts).

The ESIA will assure the stakeholders that all environmental impacts are taken into consideration, that the public has been properly consulted and mitigation measures and monitoring identified and agreed.

Scope of Work

The ESIA and the scope of work under these TOR also will be carried out through two phases and will have two main deliverables: **(i) Phase 1: Environmental and Social Scoping Study (ESSS); (ii) Phase 2: Environmental and Social Impact Assessment (ESIA)**

The tasks under the Phase 1 Scoping Study, in line with Kosovo and EU regulation on EIA, are primarily focused on identifying the impacts to be assessed (and how) and which of these are significant and most important as well as the geographical area of influence to be considered for each of the different environmental and social parameters. In addition, the ESSS will address the following: (i) the types of alternatives which ought to be considered, drawing on a number of analysis conducted to date (see below the section on alternatives); (ii) the available baseline data and which further baseline studies are required to characterize the existing environment, including salient social aspects; (iii) any special requirements for baseline studies regarding their geographical extent or timing e.g. because of seasonal changes in fauna and flora; (iv) the level of detail of investigations required; (v) types of emissions and impact modeling, in line with international accepted standards, to be used to estimate the magnitude of environmental effects; (vi) the types of mitigation measures to be considered and monitoring to be required following relevant EC Directives; (vii) the communication plan to inform the public through public consultations about the scope and preparation of the ESIA, the results of the scoping study, including identification of the main stakeholders and their concerns; (viii) agreement on the detailed scope and structure of the ESIA with the main stakeholders under the proposed Project, including further consultations to be carried out during the environmental studies.

The detailed **tasks of the Phase 2 Environmental and Social Impact Assessment** will be tailored and concluded based on the findings in the scoping study, but will include in any case: (i) determine and further collect where needed the baseline data according to the ESSS findings and guidance; (ii) for the proposed project and its alternative scenarios, discuss the technical, social and environmental parameters and determine and assess the identified impacts; (iii) prepare the Environmental Management Plan, identifying the required actions needed to mitigate environmental and social impacts of concern that will be integrated into the design (the proposed Mitigation Measures) as well as the required Monitoring measures; (iv) identify the responsibilities for implementation as well as oversight for the identified mitigation and monitoring measures including an estimate of investment and/or operating budget required (iv) prepare a final ESIA study that will comply with national legislation as well as WB policies and Environmental, Health and Safety Guidelines; IFC/MIGA performance standards and EU Directives.

Previously prepared social and environmental studies, particularly the Scoping Statement for Environmental Assessment for Rehabilitation of Thermal Power Plant Kosovo B prepared by USAID in 2010, the Strategic Environmental and Social Assessment, Final EIA Handbook and Final Draft New Mining Field Development Plan all prepared by the ERM in 2008 as well as the ESIA for the refurbishment of an excavator in Sibovc SW lignite mines prepared by ENGTEAM in 2010 should all be used as background information for the ESSS and ESIA. Useful information is also provided as part of the European Agency for Reconstruction reports on Site Selection (see Annex 1 to these TOR). The ESSS and ESIA will be reviewed by an independent Panel of Experts hired by the Government. This Panel of Experts will be an advisory panel consisting of independent, internationally recognized environmental and social scientists with the task to advise on all aspects of the

proposed Kosovo Power Project relevant to the ESIA. The Panel will advise the Government specifically on the following aspects: (a) key issues and models for preparing the ESIA, (b) recommendations and findings of the ESIA, (c) implementation of the ESIA's recommendations, (d) content of the Supplemental ESIA to be developed by the Sponsor/successful bidder that would allow EIA permitting according to Kosovo legislation and be in line with World Bank policies and EU Directives.

Phase 1 - Environmental and Social Scoping Study (ESSS)

Under Phase 1, the consultant will: (a) gather available data on the existing practices in Kosovo A and B power plants and available information on planned sub-projects (opening of the new lignite mine in Sibovc, rehabilitation and operation of Kosovo B power plant, construction and operation of KRPP), including assessed alternatives and viable alternatives which ought to be considered, drawing on existing studies conducted, (b) establish availability of baseline data and gather available baseline information on state of the environment on all three sub-projects and including any special requirements for baseline studies related to their geographical extent or timing (e.g. because of seasonal changes in fauna and flora), (c) consult the stakeholders on their concerns related to the sub-projects, (d) identify environmental issues and impacts of importance related to construction, operation and closure / decommissioning of Kosovo B, KRPP and the new lignite mine and define development alternatives for these sub-projects and identify the geographical zone of influence of the Project for the different environmental and social parameters and the specific environmental ecosystems on which the cumulative impact assessment should focus (in any case air and water impacts); (e) define the missing baseline information which should be included and properly assess the environmental and social impacts as well as the mitigation and monitoring measures which are to be considered as far as already possible at this early stage (f) prepare the ESSS, (g) identify the main stakeholders and their concerns, prepare a communication plan and consult the scope (Terms of Reference) for the ESIA and the results of the scoping study with the public and stakeholders in Albanian, Serbian and English; (h) agree on the scope and structure of the ESIA and communication plan with the main stakeholders under the proposed Project, including further consultations to be carried out.

The Consultant will visit the sites of Kosovo A and Kosovo B thermal power stations, the proposed site(s) for KRPP power plant, the Bardh and Mirash mining sites, and the new site of the Sibovc mine to gather available data on the existing practices and identify the range of impacts from the existing facilities and the likely scope of environmental and social impacts to be realized with the proposed project. Information on the proposed project will be gathered from relevant government officials and other stakeholders, as well as be extracted from extensive documentation prepared for the proposed project listed in the Annex 1. The baseline data will be acquired from the existing facilities, governmental institutions, NGOs and the public as well as by the soil and water monitoring as well as air monitoring program to be contracted separately by the government. The scoping will predominantly be focused on the KRPP and new lignite mine, as the scoping statement for ESIA for rehabilitation of Kosovo B has been prepared by USAID in 2010. Nevertheless, the final scoping report will include the findings of the USAID report and the consultant's assessment and therefore entail analysis of all three sub projects. In addition, considerable amount of analytical work has been carried out in the recent past, particularly the Strategic Environmental and Social Assessment, the European Agency for Reconstruction reports on Site Selection, and an Options Study (Development and Evaluation of Power Supply Options for Kosovo) that evaluated the different power supply options available to Kosovo (completed in December 2011) which will also be taking into account.

The scoping report will also assess whether the World Bank Policy on Natural Habitats (OP/BP 4.04) or Physical Cultural Resources (OP/BP 4.11) and other World Bank policies should be applied as well as determine the implications of using water from the Iber River Basin, which drains into the Black Sea, via Serbia, Bulgaria and Romania and Kosovo with regard to the World Bank Policy on International Waterways (OP/BP 7.50) and subsequent requirements for notification of riparian states. If, based on the analysis, Kosovo will need to inform riparian states about the proposed Project, the consultant will assist the Ministry in such notifications.

For the purpose of stakeholder consultations in the scoping phase, the consultant should prepare a list of organizations and individuals who are connected / interested in the proposed project and update this list as the preparation of ESIA develops. The consultant will prepare a **communication and consultation plan, which will include a continuous information point/place/office for interested parties to obtain information about the project** which is to be approved by the Government and the World Bank and which covers the separate phases for ESSS and ESIA preparation. All the issues raised by the public should be analyzed and

taken into account in the further planning of the both phases for ESSS and the ESIA preparation.

The draft ESSS and detailed proposed scope of the ESIA will be sent to the Ministry of Environment and Spatial Planning, Panel of Experts (PoE) and WB for approval prior to disclosure and consultation. Upon approval, the consultant will work with the Government on disclosing the draft ESSS. After addressing all comments arising from the public consultations, the ESSS and final detailed proposed scope for ESIA will be sent to the Government, PoE and WB.

Indicative Table of Content for final ESSS

1. Introduction
2. Project description and applicable standards to be adhered to
3. Identification and presentation of available environmental and social baseline data and information gaps
4. Identification of potential significant issues and impacts (environmental and social)
5. Results of Public Consultations on the draft ESSS and the proposed ESIA scope and identification of stakeholders' and public concerns
6. ESIA scope with description of required environmental and social topics to be investigated, methodologies and modeling to be used and further data collection requirements
7. Alternatives to be considered and mitigation measures to be investigated in the ESIA
8. Detailed work plan for the ESIA, including timeline of activities and other necessary studies as required
9. Consultation and communication plan

Further details on content of the ESSS are provided below.

Project description

In the section of project description, the location of the proposed project is to be described, describing the site and surrounding area. The following basic technical information shall be included for all three parts of the proposed Project (construction of KRPP, rehabilitation of Kosovo B and opening of the mine): the area, size and capacity of the proposed Project; basic lignite characteristics and anticipated extraction techniques and transport, envisaged associated and off-site infrastructure: wastewater treatment, cooling systems, ash and gypsum disposal, connection to the grid, the potential water buffer reservoir etc, i.e. all structures necessary for the full functioning of the new lignite power plant and the rehabilitated Kosovo B power plant. The project description should also include all international and Kosovo standards that the proposed Kosovo Power Project should adhere to.

Decommissioning of Kosovo A power plant is outside the scope of this TOR. For Kosovo B and KRPP, consultants will describe the envisaged operations and decommissioning activities.

The project description should include maps which are to include topographic contours as well as locations of relevant surface waters, roads, railways, villages and communities, administrative boundaries and existing land use.

Available environmental and social baseline data

This section will identify available environmental baseline data which will include physical, biological, socio-economic and socio-cultural aspects of the environment. For full listing of the environmental components in lignite sector, the consultant can, amongst others, refer to Annex C of the Handbook on EIA. The data will be gathered from governmental organization, the existing plants management and mines in operation, NGOs and relevant research institutions. Some of the environmental baseline data is already planned to be collected separately, such as the air monitoring program and the soil and water monitoring program, However, in addition, the ESSS will, in particular, identify the quality of available data and missing baseline information, i.e. perform information gap analysis that will be required for the full impact assessment under the ESIA. The

ESSS will define how this data will be acquired (field survey, monitoring, interviews, etc.) as well as time required for the acquisition of data.

For the preparation of the ESSS and ESIA and for the purpose of this assignment it can be assumed that all baseline data required for the assessment of the quality and impacts on air, surface water, groundwater and soil are already available or will be made available to the Consultant. As part of the proposed World Bank funded additional financing to the CLRP, three air quality online monitoring stations will be established in the Project area to provide the most accurate and detailed data on the air quality at their locations. In addition, a complementary air quality monitoring program, based on non-continuous sampling with mobile equipment is foreseen by USAID. An elaborate soil and water sampling and laboratory analysis campaign will be executed under the proposed Additional Finance to CLRP to collect baseline data on soil, groundwater and surface water pollution. The consultant will have access to these data.

It is expected that additional field data collection (sampling, monitoring, field measurements, social data) will be required for other types of baseline data such as existing noise levels and noise generators from current activities in the energy sector, data on eco-systems, flora and fauna, land-use, water use, cultural heritage, household surveys etc.

Identification of significant issues and impacts (environmental and social)

This section will identify common impacts generally associated with lignite fired power plants and open cast lignite mining. For the power plant, the study will look at minimum at impacts associated with emissions to the atmosphere (SO₂, NO_x, PM, CO₂ (carbon footprint) etc.), residuals and waste management (bottom ash, fly ash, sludge, gypsum), waste heat, wastewater, wastewater from steam / cooling cycle, noise, etc. These impacts will be looked at in the process of lignite handling (delivery, hauling, storage, and milling), different types of coal fired generators (discussed in the alternatives section), type of air particulate treatment (ESP, bag houses); type of SO₂ treatment (limestone injection vs. wet scrubbers), primary and secondary control of NO_x emissions, heat and cooling systems, etc. The lignite mining impacts will be discussed based on the different possible coal seam extraction methods and means of transporting coal to the power plant. The section will look into air emissions from mining, land use, water regimes, nature and ecology, slope stability, coal seam fires, etc.

The section will assess the quality of information and identify any possible gaps necessary to be filled for a full assessment of the impacts. The required methods for covering these gaps should be described in detail.

The Consultant will identify requirements for emissions and impact (computer) modeling in line with acceptable international standards. For instance, for air emissions and air quality impacts, models such as AEROMOD or CALPUFF could be used, but the Consultant will need to justify that the proposed model meets international standards; is widely accepted for the required application under the proposed Project; and is suitable for the specific conditions in the project area. Consultants will model different scenarios related to the proposed Project, such as the current impacts of the power plants (and other sources) on the air quality, incremental impacts of the proposed KPP with and without Kosovo A to the air quality standards as defined by the Ambient Air Quality Directive in which objectives are set for ambient air quality taking into account relevant World Health Organization standards, guidelines and programs.

Consultants will also prepare a preliminary water balance for the different uses of water from the Iber-Lepenc canal including a global forecast for the next 20 years and assess whether an upgrade of the canal would be required to ensure sufficient water for the power plant needs as well as other water users in the area and their expected water demand increases. If the upgrade of the canal would be required, the impact of the upgrade as well as mitigation and monitoring measures will be covered under the ESIA. Noise modeling under the ESIA is also required of the current noise levels in the project area for different periods during the day and for future expected noise levels.

The identification of the possible significant issues and impacts will be based taking into account that the plant will be built according to the applicable EU Directives. The impact evaluation under the ESSS and later in more detail under the ESIA will also calculate the carbon footprint and current other air emissions of Kosovo A in comparison to carbon footprint and air emissions with the proposed Kosovo Power Project and the shut-down of Kosovo A.

The scoping exercise will include the identification of the “Zone of Influence” of the proposed Project, i.e. the different geographic areas which need to be taken into account during the ESIA for each of the different environmental and social parameters, e.g. air, water, social impacts.

A list of possible impacts related to the sector can be found in Annex B (and sections 3.4.1 and 3.4.2) of the Handbook on EIA and table 2 of the Scoping statement for Assessment for Rehabilitation of TPP Kosovo B.

The Social issues under this ToR will cover the salient impacts on people living in the area of influence of the project. This will need to cover the whole area to be affected during the lifetime of plant operations. These impacts include possible impacts on land use and land-based livelihoods; land acquisition and resettlement associated with the proposed project and its associated facilities; employment and gender-related issues; public health and social services. It is important to note that the World Bank plans to conduct a detailed analysis of the impact of the proposed KPP on the current employees of KEK in order to recommend to the Government appropriate actions to mitigate adverse impacts through active employment and social assistance measures. The employment issues as mentioned under the social issues under this Terms of Reference therefore only refer to employment as part of the socio-economic survey. The land acquisition for future expansion of the lignite mine and associated power plant development is governed by a Resettlement Policy Framework (RPF), which was developed under the previous LPTAP activity, and has been adopted by Government. A Resettlement Action Plan (RAP), based on the RPF, has been prepared for the people to be affected by lignite mining in the Shala area of Hade village to facilitate immediate and pressing lignite fuel requirements; this RAP will also serve as practical guidance for future implementation of the mining plan as well as any land acquisition needed for future for power plant and associated facilities' development. The ESSS and ESIA should study the mining plan scenarios in terms of scale, locations and phasing of the new mine and inform the mine concessionaire scenarios for mine development plans and phasing (the contours of the mine area) and liaise with the Ministry of Environment and Spatial Planning to establish a management plan for the mine zoning and identify possible impacts dependent on the different zoning and with different amounts of capacity.

Stakeholders' and public concerns

This section will include the identification of the relevant stakeholders, identifying the range of community, public and (international) stakeholders concerns about the proposed project as recorded in consultations on the draft ESSS and the draft EISA scope and identified through other channels.

Alternatives to be considered and mitigation measures to be investigated

The ESSS will describe and consult on the alternatives which will be analyzed during the ESIA, taking into consideration the Options Study (Development and Evaluation of Power Supply Options for Kosovo) that evaluated the different power supply options available to Kosovo and comparing the situation with and without the foreseen shut-down of Kosovo A. These Project alternatives will include at least:

1. No-project ('zero') scenario - comparison of the proposed Project with a scenario evaluating foreseeable developments without implementation of the proposed Project;
2. Alternative energy strategy scenario - which will summarize the potential to use alternative energy sources to (partly) replace the foreseen thermal power production, taking into account the potential for improving energy efficiency (see below);
3. –Alternative technology scenario comparing different combustion types (pulverized combustion, fluidized bed combustion, pressurized FBC), different flue gas air treatment, different cooling systems, cooling water abstraction and discharge, type of mining and transportation of coal etc.;
4. Alternative siting options for the location of the power plant, including plant unit sizes.

Kosovo's energy options and the economics of each have been carefully studied. These studies concluded that there is considerable potential for energy efficiency and limited potential for renewable energy and these should be developed in addition to providing the firm baseload capacity Kosovo needs. The analysis finds that the lowest-cost reliable energy supply that would meet Kosovo's baseload and peak demand is a mix of thermal and renewable energy sources (750 MW of renewable energy, replacement of Kosovo A with 600 MW of new power generation, and the rehabilitation of Kosovo B). The mix of thermal and renewable energy sources, including projections for improvements of energy efficiency is already the basis of the proposed Project scenario. The alternative energy strategy scenario should therefore examine the alternative of further alternative energy sources and energy efficiency measures to (partly) replace the foreseen thermal power plant capacity in addition to what is already part of the baseline scenario. The precise content of the alternative energy strategy scenario will be defined and agreed on during the scoping phase.

Key applicable mitigation measures based on good international practice for the lignite sector and in line with

EU Best Available Techniques Reference Documents designed to demonstrate best available techniques at reasonable costs and Kosovo legislation will be presented in this section and further detailed in the ESIA.

With regard to the Socio-economic Assessment, the ESSS will also specify the detailed scope and methodology of obtaining a statistically representative sample of household and economic entities surveys that will be executed as part of the ESIA and provide clarification on acceptable methodologies.

Draft Environmental and Social Scoping Study results, Consultations and Communication and Consultation Plan

The Consultant will prepare the draft ESSS in English with translations into Albanian and Serbian for consultations in Kosovo after approval and integration of comments from the Government of Kosovo, the World Bank and the Panel of Experts. The draft ESSS will be accompanied by the proposed Communication and Consultation Plan to be approved by the Government of Kosovo and World Bank.

The consultant is also advised to refer to all documentation related to the recent reviews by World Bank authorities and Government of Albania communications and reports regarding the Aarhus Convention implications surrounding the Albania Power Sector Generation and Restructuring Project. These lessons shall be included in the Communication and Consultation Plan.

The Consultant will be in charge to organize and document public consultations on the draft results of the ESSS and the proposed scope of the ESIA.

Public Consultations will be organized in line with the World Bank Policy on Environmental Assessment (OP/BP 4.01) and Kosovo's legal requirements under the EIA law. The ESSS and the detailed scope and workplan for the ESIA will be disclosed in-country in Albanian and Serbian and in the World Bank's Infoshop in English. The consultation process will include standard record keeping for each meeting: a formal record should be made including the agenda, signed lists of participants, a summary of the issues discussed and copies of materials provided to the participants. The consultant will be responsible for the translations necessary during the public consultations.

Based on the comments received from the public consultations, the final ESSS and the detailed scope and work plan of the ESIA will be prepared and approved by Government of Kosovo, World Bank and the PoE. The ESIA scope includes a detailed description of required environmental and social topics to be investigated, methodologies and modeling to be used and further data collection requirements.

Phase 2: Environmental and Social Impact Assessment (ESIA)

After the approval of the ESSS and agreement on the detailed scope and structure of the ESIA, the consultant will start preparing the ESIA document. The consultant will acquire in the manner defined in ESSS all missing data on baseline and those necessary for evaluation of impacts. The ESIA document will address all the issues identified in the ESSS. After preparation of the draft document, and the review of the same by the Bank and the Government and the Panel of Experts, the document will be disclosed in Albanian, Serbian and English and publically discussed. All comments received from the public will be recorded and addressed in the final version of the study.

Indicative Table of Content and Scope of issues to be covered by ESIA

Below is the indicative table of content for the ESIA, which is to be completed and confirmed, based on the outcomes of the ESSS:

1. Non-technical Executive Summary
2. Legal, Regulatory and Policy Framework
3. Description of the Project and Project Components
4. Baseline Environmental Information and Data
5. Socio-economic Assessment
6. Environmental and Social Impacts

7. Analysis of alternatives as identified and agreed in the ESSS.
8. Environmental Management Plan, including mine reclamation and closure plan for Kosovo B and KRPP decommissioning, dismantling and land reclamation for the mine.
9. Public Consultation and Communication Plan and Records

Overview of ESIA Report Contents

The following sections are a first indication of the deliverables under the ESIA. The detailed contents of the ESIA will be fully informed by the results of the ESSS.

Executive Summary

This section will provide a summary of the project objectives and brief project component descriptions in addition to a brief non-technical description of significant findings and recommendations for environmental management that will be adopted by the investor to eliminate or minimize adverse impacts to acceptable levels as defined by the appropriate authorities and standards. This product will serve as the main consultation document and should be available in the languages most used by the project stakeholders (Albanian and Serbian) and English.

Legal, Regulatory and Policy Framework

This section will describe applicable environmental legal, regulatory and policy requirements and associated regulations and standards of the Government of Kosovo, the EU and World Bank Group and should also provide a gap analysis of the key differences between Kosovo legislation, the applicable EU Directives, and relevant World Bank Group Environmental, Health, and Safety Guidelines for Thermal Power Plants. This section will also include a review of the laws and administrative instructions related to the Spatial Plan for the NMF. In addition, the recent Draft Law on Integrated Pollution Prevention and Control (IPPC) and environmental permitting is awaiting approval and will be followed by the consultant. This regulation follows the general scheme and technical annexes of the EC IPPC Directive requiring an IPPC permit for this power generation plant [Annex 1, Part A, 1.1], hazardous waste disposal activities [Annex 1, Part A, 5.3 and 5.4] and large-scale open-cast extraction of mineral resources [Annex 1, Part A, 6.2]. Equally, Annex 1, Part B makes clear the thresholds for discharge and emissions for which all proposed project components must comply to meet MESP permitting requirements. Consultant shall follow applicable EU Directives in particular the EU Directive on Large Combustion Plants and the EU Directive 2010/75/EC on industrial emissions (integrated pollution prevention and control) (Industrial Emissions Directive) and applicable World Bank policies, specifically OP4.01 and OP 4.12, on Involuntary Resettlement.

The section should also provide procedures to be followed for obtaining all relevant permits for start of construction works by the final investor/successful bidder. Future steps should be defined, emphasizing the responsibilities for individual steps, documentation and content of documentation as well as the timeline for permitting process.

Description of the Project and Project Components

The section will provide a brief overview of the Energy Sector in Kosovo (including introductory parts from Energy Strategy 2009-2018), the Project background and specific description of the Project components.

The ESIA will cover the construction and operation and final decommissioning the lignite-fired power stations Kosovo B and KRPP and the development of an open-cast lignite mine and the associated infrastructure which includes, amongst others, the electrical interconnection upgrades at the Kosovo B substation, the potential water buffer reservoir and the mine area where the ash will be disposed. If from the water balance analysis it appears to be necessary to also upgrade the Iber-Lepenc canal to ensure sufficient water supply for the KRPP units, the ESIA will also cover the upgrade of the canal. The connection of the new power plant to the Kosovo B substation is part of the proposed project and will be covered by this ESIA, but no upgrade or expansion work is anticipated for the high-voltage transmission line leading away from the Kosovo B substation, and so it will not be covered under the ESIA.

The following technical information shall be included: size and capacity of the proposed project, including mining and power plant operations (for both KRPP and rehabilitation of Kosovo B), all associated infrastructure (construction and operation workforce, housing, water supply, power generation lines, treatment facilities, roads, etc.), description of the construction, operation, mine closure and power plant

decommissioning activities (phased construction activities, associated manpower, opportunities for local labor), lignite characteristics, lignite extraction and transport (extraction techniques, transport of coal to plants, separation and mixing, drying process), power cycles boiler systems, cooling cycles including an overview of the water supply and water balance (showing flow calculations, indicating discharge, recycling, evaporation, surface water use, treatment etc.), pollution treatment and abatement equipment (precipitators for fly ash and fly ash storage, bottom ash collection, transport and storage, gypsum etc.), hazardous waste use, handling, and storage (diesel, fuel gasoline, lubricants), worker health and safety, emergency preparation and response (including community response and notification) temporary construction areas; site location alternatives considered; clean-up activities; implementation schedule; staffing and support, and worker facilities and services.

Maps (in a common GIS format) are required at appropriate scales to show project-related development sites, pre-construction and construction activities as well as surrounding areas likely to be impacted (areas of influence-direct and indirect). These maps should include topographic contours as well as locations of major surface waters, roads, railways, villages and communities, administrative boundaries and existing land use.

Baseline Environmental and Social Information and Data

Based on the approved ESSS for the proposed Project, which provides definition of the scope and significance of direct and indirect impacts of the proposed Project, including the area of influence and the alternatives under study, the Consultant shall assemble, evaluate and present the environmental baseline data as it relates to the proposed Project. Based on the ESSS, missing data will be acquired as suggested (field surveys, interviews, and consultations to fill any information gaps critical to the potential impacts and for development of mitigation measures; see related ESSS section under this TOR for what types of data are expected to be made available to the Consultant and which further data collection and survey work is expected). The environmental description should be concise and focused on those environmental sectors where potential impacts of the proposed project can be expected. The information should be presented in illustrative maps at an appropriate detailed scale.

The consultants will need to present environmental baseline data on the following items, amongst others:

Physical environment: geology; topography; soils; climate and meteorology; ambient air quality; surface and groundwater hydrology; existing sources of noise and air emissions; existing water extraction and water users and water pollution discharges; and receiving water quality; all existing operational and past mining and associated processing facilities. Air quality monitoring programs are currently in the process of being initiated which will provide the baseline air quality data. Also water and soil quality data will be collected under a separate contract and made available to the Consultant.

Biological environment: flora; fauna; rare or endangered species; sensitive habitats, including parks or preserves, significant natural sites, etc.; species of commercial importance; and species with potential to become nuisances, vectors or dangerous, nature and sensitivity of important ecological functions.

Socio-economic-cultural environment (see below): (include both present and projected where appropriate): population; land use, particularly agricultural land use in the area; planned development activities; settlement and community structures; employment⁵; distribution of income, goods, and services; recreation; health; and cultural properties.

The consultants will provide general information about the type of health implications which are typically connected with lignite-fired coal plants, but will not undertake a specific health surveys other than the health issues which will be integrated in the social-economic-cultural assessment.

Socio-economic-cultural Assessment

A strategic social assessment was completed as part of the ERM SESA and the initial findings and baseline could be used by the consultant to update the social assessment. The updated social assessment will describe the current social and economic impacts of the proposed project on directly- and indirectly-affected communities. This socio-economic information will develop a robust sampling base of at least 20% of affected population and entities in order to provide a contemporary baseline needed for evaluation of impacts and, if

⁵ As stated before, the World Bank plans to conduct a detailed analysis of the impact of the proposed KPP on the current employees of KEK in order to recommend to the Government appropriate actions to mitigate adverse impacts through active employment and social assistance measures. The employment issues as mentioned under the social issues under this Terms of Reference therefore only refer to employment as part of the socio-economic survey

required, measures to be carried out to mitigate negative impacts and to enhance positive impacts and opportunities.

The Consultant will gather data for the report using a combination of secondary (existing reports and statistics) and primary household survey data based on a statistically reliable and representative sample to describe the salient demographic and socio-economic characteristics of the population in the project's area of influence. This assessment should: verify and update as needed: (i) anticipated social and economic impacts; (ii) current social and economic baseline characteristics; (iii) assess social and economic impacts; (iv) describe measures for mitigation of adverse impacts and enhancement of positive impacts ; and (v) identify community development opportunities and priorities.

The Consultant will engage specialized social science (anthropological / sociological) expertise throughout the Social Assessment, and seek advice from World Bank social experts to resolve any difficult issues in interpretation of this directive. Since the socio-economic survey is also inclusive of other proposed project-affected communities, the consultant may choose to conduct updated community profiles by using the Community Consultation Guidelines and recent Community Development Forums that were established for the majority of affected communities to identify community concerns other than those related to the RAP.

It is important to identify, in the area of influence how all communities are currently collecting water from the aquifer, including collection techniques, storage facilities and practices, quantities of water extracted by each community and/or water use group. This effort will also summarize the end use of this water, specifically how much is used on a monthly basis for drinking, livestock and agriculture. Based on this analysis and consultation with affected parties the consultant will provide several water use scenarios for the proposed project and its effects on local water users in the area of influence. These scenarios shall predict how each water use scenario would affect the economic life of each community, impacts related to human health and livestock, farming and grazing practices, land capability, property rights, and water access, etc.

Environmental and Social Impacts

Based on the approved ESSS, the Consultant shall list, model and describe all relevant potential environmental and social impacts. The environmental impacts and social influences will be categorized under pre-construction, construction, operations, and finally decommissioning of the Kosovo B and KRPP plants and the mine.

The Consultant will make efforts and pay great attention to the graphical presentations of the results in graphs, on maps etc to present the impact results in a manner that will make them accessible and minimizes effort to interpret the results and assess the main impacts of the proposed project.

Cumulative Effects

The ESIA will as well include a specific section of the report that provides a discussion on cumulative effects (as they affect air, groundwater and surface water, land use and social issues) and investigate potential trans-boundary impacts of the proposed Project. This section should include a review of the current and potential impacts from existing investments, the proposed Project and other potential projects. This analysis should be supported by figures, tables and maps as appropriate.

Analysis of Alternatives

The section will, for the alternative development scenarios identified under the ESSS, present a comprehensive description of the alternatives as identified and agreed under the ESSS and their technical, economic, environmental and social features. This section will then further describe how the Project impacts compare to those of the identified alternatives and will be concluded with an assessment whether findings from this comparison could improve or in any other manner could inform the development of the Project.

Environmental Management Plan (Mitigation and Monitoring & Capacity Development Plan)

The consultant will prepare an Environmental Management Plan (EMP) for both construction, operational and decommissioning phases to identify: (a) the set of mitigation responses to potentially adverse impacts; (b) the institutional structure and strengthening required to ensure that mitigation measures are taken; and (c) the monitoring program to implement to verify compliance with the recommended mitigation, and measure the level of impacts produced by the proposed project. Specific details concerning each of these EMP components are discussed below. The Environmental Management Plan will be in line with Bank's OP 4.01; Environmental Management Plan (EMP) and include a clear Mitigation Plan and Monitoring Plan according to the Bank

requirements of the OP 4.01 (Annex IV). The EMP should clearly present estimated costs affiliated with proposed mitigation and monitoring actions as well as the parties/institutions responsible for each item of the EMP implementation. By the time the consultant is prepared to develop the EMP for construction and begin preliminary work on the EMP for operations, the winning design for the concession should have been selected which will be included in the EMP. Further site specific EMPs will be prepared by the investor for permitting purposes under the Kosovo legislation.

Mitigation Measures Plan - The consultant will present a table of all impacts for the pre-construction, construction, operations and decommissioning phase for all key project components. The preconstruction/design section of the matrix will include recommendation for the design phase to avoid certain impacts. The matrix will include (i) significant impacts to be expected, (ii) proposed mitigation measures and their proposed timing, (iv) which party will be responsible for incorporating the mitigating measure into the proposed project during construction and operation and which authority will be responsible for providing oversight that the mitigation measures are taken correctly (v) estimated budget of the proposed mitigation measures and allocation of financing responsibilities. The consultant shall also show relevant mitigation measures in a spatial representation, such as map or diagram, with precise location of such mitigation measures.

Environmental Monitoring Plan - The consultant will prepare a short-term and long-term environmental monitoring program during power plant and mine design, construction, operation and decommissioning as well as for mine closure. This will include: (a) a specific description, and technical details, of monitoring measures required, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions in line with the standards which are applicable; and (b) monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

The monitoring plan will also consist of costs estimates of the proposed monitoring measures, the key parties/institutions that are proposed to be responsible to undertake the monitoring as well as the oversight responsibilities for correct implementation of the monitoring function and implementation of the mitigation measures. The monitoring plan will be based on applicable EU requirements, WB policies and Kosovar legislation related to monitoring of coal fired power plants.

Capacity Development - The Consultant will review the skills and capacity with the concerned regulators, in particular the Ministry of Environment and Spatial Planning, the Kosovo Environmental Protection Agency and its inspectorates, responsible for review of ESSS and ESIA documents, permitting and monitoring and enforcement. This review will also be done in view of the required future frequency and type of inspections to monitor compliance with the permit conditions, such as emission monitoring obligations and (annual) environmental reporting. Based on this review, the Consultant will prepare recommendations and propose a plan for capacity building will focus on providing expertise related to the typical type of mitigation measures which concessionaire/investor would be expected to integrate in the designs and the construction of the power plant and mine opening in order for the plant and the permit approval procedure for the concessionaire in line Kosovo legislation and EC Directives.

The capacity building plan will include at least one study tour with 15 estimated participants to a well established permitting and monitoring and enforcement agency in charge of monitoring compliance and inspection of a coal-fired power plant. The organization and travel costs for this study are to be covered as part of this Terms of Reference

The Environmental Management Plan will also indicate whether there would be a need for an independent Environmental Supervision Engineer during the construction of the plant and opening of the mine. The ESIA consultants will prepare the TOR for this work in case this is required.

Mine Reclamation and Closure Plan (MRCP)

The preparation of the Mine Reclamation and Closure Plan (MRCP) is a responsibility of the investor. The Consultant under the ESIA will prepare a set of conditions, requirements and recommendations for the MRCP based on the already existing Complementary Mining Plan for Sibovc SW (CMP) developed by the STEAG Consortium in 2006. For this task the Consultant should further consider that: (i) future public health and safety are not compromised; (ii) the after-use of the site is beneficial and sustainable to the affected communities in

the long term; and (iii) adverse socio-economic impacts are minimized and socioeconomic benefits are maximized.

Community Development Fund

It is commonplace for extractive industries to invest in community development initiatives, beyond the requirements of compensation and resettlement. In many cases, the investor provides for set aside funds to support these actions as part of their overall Corporate Social Responsibility (CSR) program. Also for the proposed KPP it is foreseen that a Community Development Fund of US\$10 million will be established. The consultant under the ToR for this ESIA will review relevant Corporate Social Responsibility (CSR) practices associated with similar extractive industry projects to suggest to the government practical CSR investments by the project investor which may be considered for inclusion in the legal agreement. The socio-economic data and household and entity survey data will help the consultants to identify community issues, priorities and possible investments as well as suitable institutional delivery mechanisms how to structure the community development fund in line with good CSR practices and to advise the government how such Community Development Fund could best be set up and operated.

Public consultations and Communication

Once the draft ESIA, including EMP, has been prepared, the Consultant will have it translated into Albanian and Serbian after approval and integration of comments from the Government, the World Bank and the PoE. The Consultant will be responsible for organization of public consultations of the ESIA. Public consultation and communication will be undertaken on the basis of the World Bank Policy on Environmental Assessment (OP/BP 4.01), Kosovo legislation, Aarhus Convention, good international practices and based on the approved Consultation and Communication plan as developed during the Scoping phase. The consultation process will include standard record keeping for each meeting: a formal record should be made including the agenda, signed lists of participants, a summary of the issues discussed and copies of materials provided to the participants. The Consultant will be responsible for the translation requirements for the public hearing. The consultation process will also foresee for a continuous communication place where interested citizens and stakeholders can obtain information about the proposed Project.

The Consultant, will finalize the ESIA based upon the outcomes from the Public Consultations and then support the Government in the public disclosure of the Final ESIA document.

Deliverables and reporting schedule

Inception Report - An inception report shall be submitted within 1 month from contract signature. The Inception Report shall include the review of the available reference documents and baseline environmental and social data and provide an overview of applicable standards for lignite fired power plants in line with EU Directives. The Inception Report will also outline the detailed work plan.

Draft Environmental and Social Scoping Study (ESSS) - The draft ESSS and communication and consultation plan will be submitted within two months after contract signature. This will be accompanied by the proposed draft detailed work plan for the ESIA and will also present the overview of all environmental and social baseline data.

Final ESSS - Upon receiving approval for the draft ESSS from the Client and the World Bank, after review of the Panel of Experts and after the organization of the first round of public hearings, taking into account the comments received (all within 3 (three) months from the Contract signature), the Consultant will submit the final ESSS within four months after contract signature.

Draft Environmental and Social Impact Assessment (ESIA) - The draft ESIA will be submitted after approval of the Final ESSS and the detailed work plan for the EISA. The draft ESIA will have to be submitted no later than seven months after contract signature and will include the draft Environmental Management Plan.

Final ESIA - The final ESIA including Environmental Management Plan will be submitted after approval from the Client, the World Bank and the review of the Panel of Experts and after the organization of the second round of public hearings, taking into account the comments received. The Consultant will submit the final ESIA no later than 8 months after contract signature.

All reports, with exception of the Inception Report will have to be submitted in English, Albanian and Serbian. Reports will be submitted in electronic reports as well as 10 hard copies in each language. The Consultant should allow for at least two weeks review period before consolidated comments will be received for each

reporting.

Reporting and contact information

The beneficiary country for this assignment is Kosovo. The envisaged contract authority is the Ministry of Environment and Spatial Planning. The Consultant will formally report to the Ministry of Environment and Spatial Planning, and will closely coordinate with the Ministry of Economic Development; the World Bank and the Panel of Experts.

The Responsible person for any technical clarification regarding these Terms of Reference and the project implementation is:

Mr. Muhamet MALSIU

Director of Environmental Protection Department

Ministry of Environment and Spatial Planning

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WORKING DRAFT

Annex 1 - Available Documents

Key Existing Environmental and Social Studies. The environmental and social aspects of the proposed power project have been the subject of studies presented in the documents below.

1. **The Strategic Environmental and Social Assessment (SESA)** was a systematic and comprehensive evaluation of the then proposed Kosovo C project and its components following the European Commission's Directive on Strategic Environmental Assessment of Plans and Programs and the World Bank's Safeguards Policies and Procedures. The SESA included: **Final SESA Report**, December 2008, ERM Italia; **Final EIA Handbook**, December 2008, ERM Italia and **Final Draft New Mining Field Development Plan (NMFDP)**, December 2008. ERM Italia. In addition SESA included: An environmental and socio-economic baseline in a lignite deposit area located northwest of Obiliq town, including Hade, Hamidi, Lajthishte, Sibovc villages and the area of villages Grabovc i Poshtëm, Shipitullë, Palaj/Cerkvena Vodica and Dardhishtë. A synopsis of potential development scenarios including three proposed locations, associated technologies (pulverized fired 'PF' or circulating fluidized bed 'CFB'), variable power units (300 or 500 MW), and different phasing of development scenarios (rapid or phased). A "zero" or no action alternative was also evaluated. The environmental and socio-economic impacts of projected development alternatives. Recommendations on the preferred development scenario, and documented public consultation process.
2. **Lignite-sector-specific Environmental Impact Assessment (EIA) Handbook.** This handbook provides guidance to all actors in the assessment process and explains in a step-by-step process, the required actions for the EA process and roles for government agencies, consultants and/or NGOs.
3. **Final Draft New Mining Field Development Plan (NMFDP).** This Draft NMFDP was developed under the LPTAP as a planning document which sets out the future spatial development scenarios of the new about 11 square kilometer sized lignite mine that will be opened in the *New Mining Field (NMF)*, previously known as —Sibovc Minel to serve the new high efficiency *Kosovo New Power Plant*.
4. **Sibovc Southwest Lignite Mine Environmental and Social Impact Assessment Study. December 2009.** This ESIA was financed by KEK and implemented by ENGTEAM Srl Italy. It analyses the main alternatives, the environmental and socio-economic baseline data, the environmental and social impacts, the mitigation measures and the environmental management and monitoring plan for the refurbishment of an excavator in the Sibovc South West lignite field. This study includes also the Annexes with a copy of the integral text in English and Albanian languages of all relevant legislation, guidelines, directives and studies already implemented with the support of International Donors.

Other Relevant Studies: The consultants should also review the following power sector studies and policies that contain pertinent information:

5. **Final Draft New Mining Field Development Plan (NMFDP).** This Draft NMFDP was developed under the LPTAP as a planning document which sets out the future spatial development scenarios of the new about 11 square kilometer sized lignite mine that will be opened in the *New Mining Field (NMF)*, previously known as —Sibovc Minel to serve the new high efficiency *Kosovo New Power Plant*.
6. **Studies to Support the Development of New Generation Capacities and Related Transmission – Kosovo UNMIK – Task 4: Site Selectionl, Poyry/CESI/Terna/Decon of behalf of EAR, June 2007.** Collection of several volumes that provides some useful environmental and social background material. Overview on the status of past pollution and review of new power technologies and technical specifications regarding emissions, discharges and overall insight into thresholds based on EU standards.
7. **Energy Sector Technical Assistance Project (ESTAP I, II, III),** The World Bank, Various Consultants, 2002, 2006, 2007.
8. **Energy Sector Technical Assistance Project (ESTAP III),** RIINVEST Institute, **Guidelines for Community Consultation inn Relation to mining in Kosovo, Guidelines for MEM and Other Government Ministries on Legal Framework for Community Consultation and Development, Community Development Framework for Mining in Kosovo,** April 2007.
9. **REBIS: GIS - SEE Region Demand Forecast – Appendix 6 of Volume 4 (Electricity Demand Forecast),** PCW/MWH/Atkins, on behalf of EU CARDS Program, December 2004.
10. **Environmental Impact Assessment and Action Plan for Kosovo A and B Power Plants and Coal Mines,** CarlBro for KEK, June 2003
11. **Energy Sector Technical Assistance Project (ESTAP) – Kosovo,** CESI/EIMV/Ramboll/RE, on behalf of UNMIK, May 2002

12. *Pre-feasibility studies for the new lignite fired power plant and for pollution mitigation measures at Kosovo B power plant: Draft report on evaluation of site*, European Agency for Reconstruction, 2005.
13. *Energy Demand Forecast in Kosovo for 2007*, MEM, December 2006 —Energy Demand Forecast in Kosovo for 2007, MEM, December 2006
14. *Development of Power Generation in South East Europe – Implications for Investments in Environmental Protection*, S.E.E.C. on behalf of the World Bank, April 2005
15. *Development of Power Generation in South East Europe – Implications for Investments in Environmental Protection*, S.E.E.C. on behalf of the World Bank, April 2005
16. *Energy Strategy of Kosova, 2005-2015*, Ministry of Energy and Mining (MEM), July 2005
17. *Energy Strategy of Kosova, 2009-2011, Ministry of Energy and Mining (MEM), April 2010*
18. *Project Appraisal Document on a Proposed International Development Association Grant in the Amount of SDR 5.8 million (US\$ 8.5 million equivalent) to the United Nations Interim Administration Mission in Kosovo for the Benefit of Kosovo for a Lignite Power Technical Assistance Project*, the World Bank, September 2006
19. *Prefeasibility Study for Identification of Water Resources and their Utilization through Small Hydro Power Plants on Kosovo*, Albanian Association of Energy and Environment for Sustainable Development, on behalf of MEM, May 2006
20. *Programme for the Implementation of the Kosovo Energy Strategy for the Period 2006-2008*, Strategy Ltd., on behalf of EAR, December 2005
21. *Main Mining Plan for New Sibovc Mine*, Vattenfall/DMT on behalf of EAR, July 2005.
22. *Complementary Mining Plan for Sibovc SW*, STEAG Consortium on behalf of EAR, April 2006
23. *Project Appraisal Document on a Proposed International Development Association Grant in the Amount of SDR 3.8 million (US\$ 5.5 million equivalent) to the United Nations Interim Administration Mission in Kosovo for the Benefit of Kosovo for an Energy Sector Clean-up and Land Reclamation Project*, the World Bank, May 2006
24. *Development of Power Generation in South East Europe – Implications for Investments in Environmental Protection*, S.E.E.C. on behalf of the World Bank, April 2005
25. *Pre-feasibility Study for Pollution Mitigation Measures at Kosovo B Power Plant – Lot 2*, Electrowatt/Ekono, on behalf of EAR, February 2006
26. *Water Security for Central Kosovo, Kosovo-Iber River Basin and Iber Lepenc water system*, International office for Water, January 2011
27. *Water Supply from the Iber Lepenc hydro system for the proposed Kosovo C Power Plant, Evaluation of the hydro system and water availability assessment at the entrance of Pridvorice-Obiliq Canal*, November 2007
28. *Kosovo Combined Heat and Power (CHP) Feasibility Study 2005*, IBE-Slovenia
29. *“Improvement of District Heating, Phase 2 CHP” – Feasibility Study Report*, COWI-IPF Consortium, July 2011
30. *Pre-Feasibility Study for Pollution Mitigation Measures at Kosovo B Power Plant*, European Agency for Reconstruction, February 2006

Kosovo Legislations on Environment

1. Law n.2003/14 of 03.07.2003 “on spatial planning”;
2. Law n.2003/19 of 09.10.2003 “on occupational safety, health and the working environment”;
3. Law n.2003/25 of 04.12.2003 “on cadastre”;
4. Law n.2004/15 of 27.05.2004 “on construction”. A new Law on Construction should be approved by the Assembly of Kosovo (AoK) on 2012 and therefore the Consultant should take into consideration this new law;
5. Law n.2004/24 of 08.07.2004 “Water Law”. A new Water Law should be approved by the Assembly of Kosovo (AoK) on 2012 and therefore the Consultant should take into consideration this new law;
6. Law n.2004/30 of 28.07.2004 “on air protection”;
7. Regulation n.2004/49 of 26.11.2004 “on the activities of water, wastewater and waste services providers”;
8. Regulation n.2005/2 of 21.01.2005 “on the establishment of the Independent Commission for Mines and Minerals”;

9. Regulation n.2005/3 of 21.01.2005 “on mines and minerals in Kosovo”;
10. Order n.41 Prot.02/05 of the Ministry of Environment and Spatial Planning of 04.03.2005 “for implementing the spatial planning law on essential elements of regulation urban plan”;
11. Law n.02/L-18 of 23.03.2005 “on nature conservation”;
12. Law n.02/L-26 of “on Agricultural Land”;
13. Law n.02/L-30 of 22.07.2005 “Waste Law”. A new Waste Law should be approved by the Assembly of Kosovo (AoK) on 2012 and therefore the Consultant should take into consideration the new legislation;
14. Law n.02/L-38 of 19.01.2006 “on health inspectorate”;
15. Regulation n.2006/31 of 05.05.2006 “on the Promulgation of the Waste Law Adopted by the Assembly of Kosovo”;
16. Law n.02/L-96 of 26.01.2007 “on amendments and additions to Law n.2003/25 “on cadastre””;
17. Law n.03/L-081 of 13.06.2008 “amending UNMIK Regulation n.2005/2 “on the establishment of the Independent Commission for Mines and Minerals””;
18. Law n.03/L-015 of 12.02.2009 “on Environmental Strategic Assessment”;
19. Law n.03/L-214 of 23.09.2010 “on Environmental Impact Assessment”;
20. Law n.03/L-025 of 26.02.2009 “on Environmental Protection”;
21. Law n.03/L-043 of 23.03.2009 “on Integrated Prevention Pollution Control”;
22. Law n.03/L-139 of 26.03.2009 “on expropriation of immovable property”;
23. Law n.03/L-226 of 28.10.2010 “on Allocation for use and Exchange of Immovable Property of Municipality”;
24. Law n.04/L-040 of 23.01.2012 “on land regulation”;

Additional Kosovan secondary legislation (Administrative Instructions, etc.) will be made available by the Ministry of Environment and Spatial Planning.

Despite Kosovo is not yet a Member State of the European Union, its Government is strongly committed to achieve the status of pre-candidate country and therefore to transpose the EU Directives into Kosovan legislative framework. Within this perspective, the study should take into consideration the following EU Directives and Regulations that are relevant for this project, in order to fulfil as much as possible the EU standards and procedures from an early stage:

1. Council Directive n.76/464/EEC of 04.05.1976 “on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community”;
2. Council Directive n.79/409/EEC of 02.04.1979 “on the conservation of wild birds”;
3. Council Directive n.80/68/EEC of 17.12.1979 “on the protection of groundwater against pollution caused by certain dangerous substances”;
4. Council Directive n.82/501/EEC of 24.06.1982 “on the major-accident hazards of certain industrial activities”;
5. Council Directive n.85/337/EEC of 27 June 1985 “on the assessment of the effects of certain public and private projects on the environment”;
6. Council Directive n.88/609/EEC of 24.11.1988 “on the limitation of emissions of certain pollutants into the air from large combustion plants”;
7. Council Directive n.91/271/EEC of 21.05.1991 “on urban waste water treatment”;
8. Council Directive n.91/676/EEC of 12.12.1991 “on the protection of waters against pollution caused by nitrates from agricultural sources”;
9. Council Directive n.91/689/EEC of 12.12.1991 “on hazardous waste”;
10. Council Directive n.92/43/EEC of 21.05.1992 “on the conservation of natural habitats and of wild fauna and flora”;
11. Council Regulation (EEC) n.259/93 of 01.02.1993 “on the supervision and control of shipments of waste within, into and out of the European Community”;
12. Council Decision n.93/98/EEC of 01.02.1993 “on the conclusion, on behalf of the Community, of the Convention on the control of transboundary movements of hazardous wastes and their disposal (Basel Convention)”;
13. Council Directive n.94/66/EC of 15.12.1994 amending Directive n.88/609/EEC “on the limitation of emissions of certain pollutants into the air from large combustion plants”;
14. Council Directive n.96/61/EC of 24.09.1996 “on integrated pollution prevention and control”;
15. Council Directive n.96/62/EC of 27.09.1996 “on ambient air quality assessment and management”;
16. Council Directive n.96/82/EC of 09.12.1996 “on the control of major-accident hazards involving dangerous substances”;
17. Council Directive n.97/11/EC of 03.03.1997 amending Directive n.85/337/EEC of 27.06.1985 “on the assessment of the effects of certain public and private projects on the environment”;
18. Council Directive n.1999/30/EC of 22.04.1999 “on limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air”;

19. Council Directive n.1999/31/EC of 26.04.1999 “on the landfill of waste”;
20. Communication from the Commission COM (2000) 265 final of 03.05.2000 “promoting sustainable development in the EU non-energy extractive industry”;
21. Communication from the Commission COM (2000) 664 final of 23.10.2000 “on safe operation of mining activities: a follow-up to recent mining accidents”;
22. Directive n.2000/60/EC of the European Parliament and of the Council of 23.10.2000 “establishing a framework for Community action in the field of water policy”;
23. Directive n.2000/69/EC of the European Parliament and of the Council of 16.11.2000 “on limit values for benzene and carbon monoxide in ambient air”;
24. Directive n.2001/42/EC of the European Parliament and of the Council of 27.06.2001 “on the assessment of the effects of certain plans and programs on the environment”;
25. Directive n.2001/80/EC of the European Parliament and of the Council of 23.10.2001 “on the limitation of emissions of certain pollutants into the air from large combustion plants”
26. Decision n.2455/2001/EC of the European Parliament and of the Council of 20.11.2001 “establishing the list of priority substances in the field of water policy and amending Directive n.2000/60/EC”;
27. Directive n.2002/3/EC of the European Parliament and of the Council of 12.02.2002 “on the ozone in ambient air”;
28. Directive n.2003/35/EC of the European Parliament and of the Council of 26.05.2003 “providing for public participation in respect of the drawing up of certain plans and programs relating to the environment and amending with regard to public participation and access to justice of Council Directives n.85/337/EEC and n.96/61/EC”;
29. Directive n.2003/87/EC of the European Parliament and of the Council of 13.10.2003 “establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive n.96/61/EC”;
30. Directive n.2004/107/EC of the European Parliament and of the Council of 15.12.2004 “relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air”;
31. Directive n.2006/11/EC of the European Parliament and of the Council of 15.02.2006 “on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community”;
32. Directive 2006/12/EC of the European Parliament and of the Council of 05.04.2006 “on waste”;
33. Directive 2006/21/EC of the European Parliament and of the Council of 15.03.2006 “on the management of waste from extractive industries and amending Directive n.2004/35/EC”;
34. Directive 2006/118/EC of the European Parliament and of the Council of 12.12.2006 “on the protection of groundwater against pollution and deterioration”;
35. Regulation (EC) n.166/2006 of the European Parliament and of the Council of 18.01.2006 “concerning the establishment of a European Pollutant Release and Transfer Register and amending Council Directives n.91/689/EEC and n.96/61/EC”;
36. Directive n.2008/1/EC of the European Parliament and of the Council of 15.01.2008 “concerning integrated pollution prevention and control”;

Additional Recommended Reports

1. World Bank Environmental, Health, and Safety Guidelines- THERMAL POWER PLANTS

[http://www.ifc.org/ifcext/sustainability.nsf/AttachmentsByTitle/gui_EHSGuidelines2007_ThermalPower/\\$FILE/FINAL_Thermal+Power.pdf](http://www.ifc.org/ifcext/sustainability.nsf/AttachmentsByTitle/gui_EHSGuidelines2007_ThermalPower/$FILE/FINAL_Thermal+Power.pdf)

2. World Bank Environmental, Health, and Safety Guidelines- MINING

[http://www.ifc.org/ifcext/sustainability.nsf/AttachmentsByTitle/gui_EHSGuidelines2007_Mining/\\$FILE/Final+-+Mining.pdf](http://www.ifc.org/ifcext/sustainability.nsf/AttachmentsByTitle/gui_EHSGuidelines2007_Mining/$FILE/Final+-+Mining.pdf)

3. Preparation of Scoping Statement for Environmental Assessment for Rehabilitation of Thermal Power Plant Kosovo B, prepared for USAID, Advanced Engineering Associates International, Inc., The Cadmus Group, Inc., Eurasia Environmental Associates, LLC, April 2010. * Note that many references for this project review are on the web at <https://drop.io/EAScopeKosovoTPP/login>, password Kosovo

4. KEK-INKOS Yearly Environmental Reports

Annex 2 - Illustrative list of key potential environmental and socio-economic impacts

PHASE	ASPECT
Pre-construction	Presentation of environmental baseline data
Construction	Air quality Soil and groundwater Solid waste including hazardous waste Spoil management and disposal Involuntary Resettlement / land acquisition (for mining). Traffic disruption Noise, dust and vibration Archaeology, Cultural Sites Natural Habitats Transport
Operations	Air quality Noise Re-vegetation for Natural Habitats Impact on air quality including greenhouse gases Impacts on surface water /groundwater, water consumption Soil contamination Coal Mine fires Flora, fauna, habitats Traffic, including transportation related to mining operations Electromagnetic fields Ash and spoil deposits Retention ponds Work force safety records Emergency Preparedness/Response Plan
Mine Closure	Remediation requirements and associated reclamation
Kosovo B / KRPP	Removing equipment, cleaning, decontamination, soil cleanup

Annex 3 – Guidance on Mitigation Measures of Environmental Management Plan

For each potential impact identified as significant in the section above, a mitigating measure is required. The mitigation measures will be based on Best Available Techniques, which are to be used to avoid adverse effects on the environment or to reduce these at reasonable costs. The ESIA would also specify mitigations measures as applicable to power plants in line with the EU Directive on Large Combustion Plants (LCP), the Integrated Pollution Prevention & Control (IPPC) Directive and the expected EU Directive 2010/75/EC on industrial emissions (integrated pollution prevention and control) (Industrial Emissions Directive) which will come into force on January 1, 2016.

Information on BATs, characteristic features, and environmental aspects are provided in the BREFs. The reference documents, amongst others, are as follows: Integrated Pollution Prevention and Control, Reference Document on Best Available Techniques for Large Combustion Plants, European Commission, July 2006 (BREF on LCPs) and additionally BREF on Industrial Cooling Systems, 2001, BREF on Emissions from Storages, 2006; BREF on General Principles of Monitoring, 2003; and BREF on Management of Tailings and waste rock in mining, July 2004. In addition, mitigation measures should achieve compliance with the IFC Industry Sector Guidance Note on Thermal Power Plants (new revised draft March 2008) as well as other relevant EU, World Bank and Government of Kosovo standards.

These measures also need to address emergency response requirements for accidental events. Throughout the document, there should be clear distinction for measures associated with the design, construction, and operational phases and closure/decommissioning of the project components. Each mitigation measure should be described in as much technical detail as possible and include costs estimates of the proposed mitigation measures. At a minimum, the consultant should prepare the following:

Construction Phase Mitigation

Construction Spoils Management Mitigation Plan to manage the disposal of construction spoils generated in an environmentally friendly manner;

Erosion and Sediment Control Mitigation Plan to describe the measures during construction to minimize sediment carried by runoff from entering downstream surface water drainage systems;

Fugitive Dust Control Mitigation Plan to control fugitive dust control emissions during construction activities;

*Noise Control Mitigation Plan*⁶ to control noise impacts on the surrounding communities during blasting and construction activities;

Re-vegetation and Natural/Wildlife Habitat Management Mitigation Plan to ensure proper re-vegetation of areas disturbed by construction activities;

Traffic Control Mitigation, Public Safety and Public Communications Plan to minimize the disruption of daytime traffic flows along important access roads in the area;

Archaeology/Cultural Resources Mitigation Plan to manage any archeological or cultural impacts that may be encountered during construction

Worker Safety Plan to identify standards for protection of workers including on-site training and proper safety equipment

Updated Public Consultation and Community Communications Plan for Construction Activities that takes into account all the impacts and mitigation identified during preparation of the Final EIA

Operations Phase Mitigation

Mining Operations Mitigation Plan This Plan should cover all of the following topics: a) Water use and quality; b) Wastes; c) Hazardous materials; d) Land use and biodiversity; e) Air quality; f) Coal fire prevention; g) Lignite dust control –extraction, transport, separation and disposal; h) Noise and vibrations; i) Energy Use and j) Visual Impacts

⁶ Cross reference any noise mitigation measures with actions planned by the Company to meet the Health and Safety Requirements, Appendix 4 in the Implementation Agreement

New and Rehabilitated Power Plant Mitigation Plan. This Plan should cover all of the following topics: a) Air emissions; b) Energy efficiency and Greenhouse Gas emissions, c) Water consumption and aquatic habitat alteration; d) Effluents; e) Solid wastes; f) Hazardous materials and oil; and g) Noise

Environmental Safety and Health Management Plan for all construction and operations across each project component that will conform to international best practice (e.g., IFC Performance Standards, EMS and ISO). The consultant shall ensure that all such practices are managed by an in house EHS Manager with demonstrated experience in similar projects.

Emergency Preparedness and Response Plan to develop a response strategy to mitigate the damage caused by potential emergency events around chemical leaks, fire and other life threatening risks leaks at both the mines and power plants: and

Power Plant Decommissioning Mitigation Plan (for KRPP and Rehabilitated Kosovo B) will be developed to assure that all potential negative impacts are controlled in this phase out process so that no contaminants pose any continued risk to human health or the environment.

Mine Reclamation and Closure Mitigation Plan, the specific details of reclamation and closure will require monitoring to assure compliance with agreed practices and provisions.

WORKING DRAFT