ZIMBABWE ELECTRICITY TRANSMISSION AND DISTRIBUTION COMPANY (ZETDC)

TERMS OF REFERENCE

(Firms Selection)

Name of assignment:

1. **Environmental & Social: An Environmental and Social Impact Assessment, Environmental and Social Management Plan, and A Resettlement Action Plan**
2. **Technical Site Studies: Geotechnical, Hydrology, Seismic, Topography and Biodiversity.**

Project Name: Zimbabwe Renewable Energy Procurement Technical Assistance Project
Project ID No: P511160

1.0 PROJECT BACKGROUND

The Zimbabwe Government (GoZ) together with its agencies are making concerted efforts to ensure a smooth energy transition to a sustainable energy system where equitable access to clean energy and self-sufficiency are priorities. Currently, there is an energy supply deficit due to growing energy demand coupled with lack of adequate investments in power generation, an aged fleet of coal thermal power plants and recurrent droughts, which are consistently hampering the performance of Kariba South Hydro Power Station.

With a national grid electricity demand of about 2,300MW and a dependable generation capacity hovering around 1,400MW coming from the utility and Independent Power Producers (IPPs), the country has been heavily reliant on power imports from the Southern African Power Pool (SAPP). Complementing the local electricity supply with regional imports has allowed Zimbabwe Electricity Supply Authority (ZESA) to supply a maximum of about 1,850MW over the past 2 years (1,887MW in 2023 and 1,841MW in 2024). As such, the power utility has been resorting to load shedding to maintain the system stability and in excess of 500MW is being consistently curtailed.

GoZ has made significant strides in promoting the adoption of clean Renewable Energy (RE) through multi-pronged measures including formulation of relevant policies, targeted incentives, RE resource assessments and direct engagement of the private sector to create an enabling environment. Below are some of the initiatives fostering integration of RE into the energy mix:

- **Government Project Support Agreement (GPSA) –** A multi-organizational technical committee developed a Government Project Support Agreement (GPSA) for contracting the GoZ with qualifying Solar IPPs to improve the bankability of their power projects and expedite implementation. The GoZ comes in to guarantee Zimbabwe Electricity Transmission and Distribution Company (ZETDC), the off-taker, and de-risk Independent Power Producers (IPPs) against potential ZETDC defaults on their financial obligations, that is, on-going payments for energy procured as provided for by the PPA and potential early contract-termination payments for sale items. To support the GPSA, the Reserve Bank of Zimbabwe provides an undertaking to ensure ease repatriation of dividends and loan payments. The Technical Committee responsible for the GPSA shall oversee the procurement process of both Technical Advisor for the Competitive Bidding and Project Developers (IPPs) for the Auctioned Capacity.
- **Solar PV Uptake Grid Readiness Study** – With the support of the World Bank, through a consultant, ZETDC conducted a detailed study to assess the ability of the Zimbabwean national grid to accommodate a high degree of Solar Photovoltaic (PV) generation. The study recommended connection of 370MW at 5 substations across the ZETDC network with minimal network reinforcements. The table below gives the list of the substations which were recommended for connection of Solar PV.

Substation Name	Voltage Level (kV)	VRE Capacity (MVA)
Mutorashanga	132	90
Gokwe	132	80
Horseshoe	132	90
Bindura	132	60
Kwekwe	88	50
Total		**370**

The initially identified land in Kwekwe has now been allocated to a private player. As such, the Kwekwe 88kV, 50MW shall be replaced with Runde 50MW for which a Grid Impact Study has already been done and connection requirements confirmed. In the proposed Solar Park Competitive Bidding (Auction) Approach, these 5 sites and substations, would be considered in the First Bidding Window of the Solar PV Auction.

- **National Integrated Energy Resource Plan (NIERP)** – The GoZ has engaged a consultant to develop the NIERP targeted for completion before the end of 2025. This is a 20-year plan with least-cost supply options for investment.

- **National Renewable Energy Policy (NREP**) – The (NREP) sets a renewable energy target of 2,100MW or 26.5% of the total energy supply by 2030.

The transaction advisory services will assist the GoZ in a competitive tender process to procure renewable energy from selected IPPs. These services will support GoZ authorities in launching the tender, prequalification, negotiations, and financial close. Capacity building for Government counterparts, including MoEPD, ZESA, ZETDC, REF, and ZERA officials, will also be provided through workshops and training on RE procurement and tendering.

2.0 OBJECTIVES OF THE TERMS OF REFERENCE

The GoZ plans to conduct an IPP solar park auction. These terms of reference aims at hiring a consultancy firm/consortium (the Consultant) to prepare with support from the Government of Zimbabwe (the Client) in the preparation of (i) an Environmental and Social Impact Assessment (ESIA); (ii) an Environmental and Social Management Plan (ESMP), (iii) a Resettlement Action Plan (RAP) (if needed - option), and (iii) technical sites studies (topographic survey, hydrological study, seismic conditions, biodiversity analysis and geotechnical investigations) for at least two (2) Solar PV plants including the right of way for the grid connection infrastructures (*sites location will be provided to the Consultant when selected*).

The objective is for the Consultant to prepare a detailed ESIA, ESMP, a RAP (if needed) and site studies for the two (2) identified sites including the grid connection infrastructures, in line with the requirements of the Government of Zimbabwe and the World Bank Environmental and Social Framework (ESF). The ESIA must aim to identify and assess potentially negative and positive environmental and social risks and impacts of the Projects and propose the most technically feasible mitigation measures to manage the identified environmental and social risks and impacts with an ESMP.

In this regard, the consultant shall identify and address potential risks and impacts through ESIA, ESMP and RAP in order to:

- Identify and assess the potential positive and negative environmental and social risks and impacts stemming from the project during preparation, construction, operation and the decommissioning phases (direct, indirect and cumulative impacts);
- Design appropriate mitigation, management, and monitoring measures to implement an environmentally friendly and socially acceptable project, without compromising its technical and economic feasibility and help determine crucial elements that facilitate the decision-making process.

Accordingly, the ESIA/ESMP shall describe the social, physical and ecological baseline status, to assess the risks and potential impacts associated with the solar activities and its installation and establish adequate E&S safeguard measures in line with the requirements of National law and international good practice such as those set out in the World Bank ESF.

3.0 SCOPE OF WORK: ENVIRONMENTAL & SOCIAL

3.1 Phase 1 – Kick-off

- **Kick-off meeting**

The Consultant will attend kick-off meetings with project stakeholders in Zimbabwe. The objectives of the meetings will include:

a. Ensuring a detailed understanding of the solar IPP initiative
b. Understanding the Zimbabwe-specific project background and technical context.
c. Establishing communications and working relationships with all relevant stakeholders.
d. Gathering data for subsequent phases.
e. Agreeing to outline work plan for the engagement.

- **E&S Screening**

The Consultant will conduct E&S screening of the proposed sites and their right of way in accordance with the guidance provided below. In carrying out the E&S work, the Consultant will:

a. Consider views and concerns of key stakeholders, including relevant authorities, local NGOs, and representatives of affected communities. Before interacting with any stakeholder, the Consultant will coordinate with, and get consent from, the Client especially in relation to what information to disclose.
b. Clearly state all methods, assumptions, and used data sources and present collected data and results of analyses in maps reporting the locations of salient Projects features. Collected data, list of sources and relevant pictures from site visits should be included in the report or its annexes. This should include a list of names, organizational affiliation, contact details and meeting dates for all stakeholders interviewed or consulted.
c. Refer to:
   - Projects' relevant E&S laws, regulations and policies of Zimbabwe
   - WB ESF
   - World Bank Group Environmental, Health and Safety General Guidelines ("WBG EHS General Guidelines")
   - WBG EHS Guidelines for Electric Power Transmission and Distribution
   - Relevant international treaties to which the Project country is a signatory
   - Good International Industry Practices
   - Handbook for Preparing a Resettlement Action Plan, if needed
   - Good Practice Handbook on Cumulative Impact Assessment and Management
   - Relevant Project E&S instruments, including the Stakeholder Engagement Plan
   - WB good practice note on SEA/SH in large infrastructure projects

To note that, **for biodiversity aspects**, the Consultant is expected to provide a clear analysis, supported by necessary data and maps, on the:

a. current extent of Modified and/or Natural habitat (as per ESS6 of the ESF), especially of the zones within the Projects area that are selected for clearing and development; and
b. presence or absence of biodiversity values, their location, status and condition, and as far as possible, information on areas of habitat, key resources, and critical areas that support the values. This should include occurrence or likely occurrence of Critical Habitat values, if any (as per ESS6).

The Consultant should note that the scope of work of this ToR is essential but non-exhaustive. The advisory process is by nature "open" and the E&S Consultant will proactively identify necessary areas of engagement and respond to reasonable request for complementary analysis.

The screening process will include:

a. **Desktop review**: Review existing literature to familiarize with most prominent E&S issues of the broader area where the sites are located. Where available, literature review will cover (i) existing environmental studies, scientific literature or any other type of pre-existing assessments available for the project area and/or adjacent areas; (ii) national or regional plans (e.g., Strategic Environmental Assessments, development strategies); (iii) existing programs or initiatives in the area and its surroundings relevant to E&S issues (e.g. local NGO projects).
b. **Key informant interviews**: Interview stakeholders with relevant experiences or knowledge of the region biodiversity and social matters to fill gaps/confirm the results of the screening.
c. **Site visit**: Conduct a walkover/site reconnaissance (1-2 days) of the site(s) to provide initial confirmation of desktop results and collect additional information, for example through interviews with stakeholders involved in the day to day management of the area of interest in order to collate any historical or currently undocumented information. At least one visit per site will be undertaken, unless the desktop review (validated by knowledge of local experts) already indicates that the site presents a fatal flaw (e.g., the site is confirmed to be located in a legally protected /internationally recognized biodiversity area that qualifies as Critical Habitat per ESS6).

The screening will cover the sites and the ancillary/associated infrastructures (connection to the grid and road access), will be based on the mitigation hierarchy and will follow the criteria indicated below.

- **Social aspects:**

- Avoidance of physical displacement of formal and informal occupants, including those with recognizable legal rights and/or customary claims to land and those with no legally recognizable legal rights or claims
- Avoidance / minimization of economic displacement of formal and informal users, including those with recognizable legal rights and/or customary claims to land and those with no legally recognizable rights or claims, (e.g., herders, farmers, sharecroppers, nomadic people periodically passing on the land for subsistence and traditional activities, communities accessing resources relevant to their livelihoods)
- Avoidance / minimization of land with claims and grievances related to its previous uses and/or linked to prior government managed resettlement, historical disputes, forced evictions, or located in areas affected by significant land grabbing
- Avoidance / minimization of impacts on cultural heritage
- Avoidance / minimization of land that is actively used by IP / Sub-Saharan African Historically Underserved Local Communities
- Avoidance of impacts on critical cultural heritage as defined in ESS7
- Distance from settlement and potential for visual impacts and/or impairment of community access to neighbors, arable land, forest resources etc.
- Avoidance / minimization of impacts on ecosystem services
- Avoidance / minimization of impacts on community health and safety, including those resulting from labor influx

- **Biodiversity**:

- Avoidance of overlap or impacts to legally protected areas and internationally recognized sites
- Avoidance of overlap or impacts to areas meeting criteria for Critical Habitats (i.e., habitats of significant importance to highly threatened species, endemic/restricted range species, globally significant concentrations of migratory/congregatory species, highly threatened/unique ecosystems, key evolutionary processes).
- Avoidance /minimization of overlap or impacts to areas considered Natural Habitat and encourage overlap or impacts to areas considered Modified Habitats (Note: some Modified Habitats may also contain important biodiversity values).

- The screening should report distance from legally protected areas, internationally recognized sites, and areas meeting criteria for Critical Habitat
- Other environmental aspects to consider: (i) Distance from groundwater (wells) recharge areas and surface water bodies; and (ii) Identification of high risks linked to water supply and/or water stressed areas.
- **Endangered & Protected Species:** Identify species classified as endangered, vulnerable, or protected under national and international laws (e.g., IUCN Red List, CITES).
- **Migratory Routes & Corridors:** Assess the presence of migratory species and wildlife corridors.
- **Displacement of Wildlife:** Identify potential disturbances to resident and migratory species.
- **Impact on Soil and Vegetation:** Assess changes in soil quality and vegetation cover due to land preparation.
- **Water Resource Impact:** Analyze potential changes in water availability and quality (e.g., groundwater depletion, runoff).
- **Heat Island Effect:** Examine potential impacts of heat generated by solar panels on local microclimates and species.
- **Long-term Ecological Changes:** Predict long-term biodiversity shifts due to land use change.
- Assess the presence and proximity of surface water bodies, wetlands, or groundwater recharge zones in and around the project area.
- Evaluate the anticipated use and discharge of water associated with the project, particularly during panel cleaning or other operational processes.
- Analyze the project site's susceptibility to natural hazards such as flooding, landslides, or seismic activity, and assess potential risks.
- Determine the potential for noise and dust generation during construction activities and evaluate their possible impacts on surrounding environments and communities.
- Identify and assess the types and quantities of hazardous materials that may be involved in the project, including photovoltaic (PV) panel waste, battery storage systems, and related substances.
- Evaluate the potential impacts of glare, noise, and dust on nearby communities during all phases of the project.
- Describe the plans for worker accommodations, including location, capacity, and associated services, and assess potential environmental and social impacts.
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The Consultant will present its conclusions, data sources (including the list of key informants interviewed) and key E&S aspects of each site in a screening report.

- **Initial site visits**

The Consultant will visit the sites with representatives from the Client. The Consultant should ensure that the staff visiting the sites have suitable expertise (e.g. ground conditions, E&S) to identify any evident fatal flaws which may prevent the development of solar projects on these sites and make an initial assessment of all relevant aspects of the sites including the right of way.

3.2 Phase 2 – E&S Scoping

- **Environmental & Social Scoping**

a. **Task (a):** Building upon the desktop review conducted at the screening stage, compile and review available, up to date information relevant for the assignment[1]. This should include assessing the

[1] This relates to information covering the broader project area. Information could be extracted from national census, sector surveys, national or international databases, national indexes, research reports, academic articles, studies from experts from government organizations/industry/academia, aerial photos and satellite imagery etc.

quality and representativeness of environmental and socio-economic secondary data and should cover all E&S aspects addressed in the ESF. Subject to this review and the results of the screening, collection of primary data may be needed through subsequent walkover/site reconnaissance by subject matter experts (social/biodiversity) in order to fill information gaps. Primary data collection will be based on field observations and key informant interviews.

b. **Task (b):** Identify, and preliminarily assess and define the magnitude of key E&S risks and impacts associated with the Projects, including ancillary and associated facilities, that the Client and bidders need to know (e.g., because to be addressed in parallel to tendering, or because of significant resources required address them). The Consultant will assess the key risks to a level sufficient for bidders to understand these risks and to approximately price mitigation measures. Under this task, the Consultant will:
    - Preliminarily estimate the Project area of influence and define the E&S scoping study area accordingly.
    - Identify sensitive receptors (e.g. communities, natural features, biodiversity values) within the area of influence.

Social:

- Confirm applicability of ESS5 and further elaborate on the land issues considered at screening stage. In particular: (i) confirm the ownership status of the land necessary for the Projects; (ii) confirm the current formal and informal use of the land (e.g., use for natural resources, agriculture, grazing, ecosystem services etc.), including use by those with formal legal rights or customary claims to land and those with no legally recognized claims. This includes any nomadic or pastoral groups who may not live in the vicinity of the site but may use the area periodically or on a temporal basis; (iii) estimate the magnitude of physical / economic displacement - this should be based on number of affected households (approximate), an indication of their vulnerability level (e.g., above/below poverty line, likelihood of having alternative means of livelihood, belonging to minority groups or more vulnerable groups in the Project context etc.), and number (approximate) of affected residential / commercials structures and agricultural land parcels grouped in few, relevant categories; (iv) summarize information on existing claims and grievances related to previous land uses / historical disputes / forced evictions / widespread land grabbing in the broader area etc., and indicate how these may affect the Project. For land recently acquired in anticipation of the Project or other developments, review the land acquisition process, clarify whether completed or ongoing, and highlight any outstanding issue and possible corrective actions to close gaps with the ESF.
- Assess the risks of the project on vulnerable groups including those recognized as Historically Marginalized People (HMPs) within Zimbabwe..
- Undertake a preliminary assessment of other key social risks such as potential for significant impacts during construction (e.g., construction traffic through narrow village roads, influx of workers and impact on social infrastructure, whether there will be the need of worker camps and land is available nearby), risks linked to potential use of armed security / interaction with state security forces, risks of affecting cultural heritage and its use and importance for the community (and applicability of ESS8), risks to priority ecosystem services, SEA/SH related risks, child labor and forced labor etc.

Environmental:

- Confirm the results of the screening in relation to biodiversity aspects and map all major habitat types using existing vegetation maps, land use maps, satellite imagery, aerial photography and other supporting information. The Consultant will also provide rationale for Categorization of habitat types as Natural or Modified in the form of a table showing: (i) Description and extent of habitat types or land classification in the area of influence; (ii)

Rational for classification as Natural or Modified habitat; (iii) Any supporting evidence such as representative photos etc. The consultant will also undertake a preliminary assessment of the risk of collision posed by any new transmission lines to sensitive bird species (e.g., large-bodied, migratory, threatened, restricted range/endemic species).

- In collaboration with the technical assessment, undertake a water use analysis to: (i) describe the climatic conditions, (ii) present feasible cleaning mechanisms and estimate water needs for each Project phase, (iii) for each potential water source, assess availability and sustainability for the lifetime of the Project, including how exploitation may adversely affect current water users.
- Consider the environmental, health and safety risks and impacts associated with drainage and flooding (based on a hydrological study to be completed by the technical consultant) and other natural hazards.
- Preliminary assess the potential for cumulative impacts.
- Investigate current waste management/disposal practices in the country and identify ways to overcome the lack of proper disposal sites, as relevant.
- Provide an understanding of how the Project success and its ability to meet the ESF could be affected by the contextual risks, such as vulnerability to drought, historical extensive land take and land related conflicts, and instability/security risks.
- Water Use and Discharge : Assess the anticipated water requirements during construction and operation, including for panel cleaning, and evaluate potential sources, sustainability, and impacts of water abstraction and discharge on local water bodies or users.
- Glare, Dust, and Noise: Identify and evaluate the potential for glare from solar panels, dust generation from construction activities, and noise emissions during all project phases, and assess their potential effects on nearby communities, sensitive receptors, and ecosystems.
- Waste and Hazardous Materials: Determine the types and quantities of waste and hazardous materials that may be generated during construction, operation, and decommissioning: including PV panel waste, chemicals, or batteries, and evaluate risks and proposed management measures.
- Occupational Health and Safety: Assess potential risks to worker health and safety throughout the project lifecycle, including hazards related to electrical systems, working at heights, and exposure to hazardous materials, and identify appropriate risk mitigation measures in line with national laws and international standards.
- Community health and safety: Analyze the potential impacts on community health and safety, including risks related to traffic, exposure to hazardous materials, and proximity to project infrastructure, and recommend appropriate mitigation strategies.
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c. **Task (c):** Preliminary map key stakeholder groups and analyze their views, with a focus on Affected Communities. The Consultant will provide a list of key groups of stakeholders, their interests and concerns, and how they should be involved at the different stages of the process and by different parties. Where the Client has already started consultation activities, review the process (including presence and effectiveness of any grievance mechanism) and suggest corrective actions as needed.

d. **Task (d):** For identified key risks and impacts preliminary identify possible mitigation measures, including monitoring activities, and propose an E&S risk allocation (e.g., the Client, the concessionaire, other government agencies) together with a timeline for implementation (e.g., prior or after the tendering). The suggested measures should be based on the mitigation hierarchy and aim at achieving compliance with the WB ESF and IFC PS. The E&S Consultant will also provide preliminary estimates of costs associated to the proposed E&S mitigations. A tabular format is recommended for presenting risk allocation and cost estimate (e.g. key risk/impact; mitigation to comply with WB ESF and IFC PS; responsible party; timeline for implementation; estimated cost). While proposed mitigation measures

and monitoring activities will be described within the body of the scoping report, the table will be included as a separate annex to the scoping report.

e. **Task (e):** Map out roles and responsibilities within the public party for E&S matters pertaining to the Project in order to identify bottlenecks and areas that would benefit from improvement (e.g., institutional arrangements and/or capacity building programs). This task will be included as a separate annex to the scoping report and should include community benefit for power generation and the electrification of impacted communities.

3.3 Phase 3.1: ESIA report

Using the results of the E&S Scoping Report, the Consultant will prepare the ESIA document, consistent with the WBG and Government of Zimbabwe requirements and acquire all missing data for evaluating the project impacts in order to develop the corresponding documents.

The following aspects should be covered by the ESIA at a minimum.

a. **Description of the Project and its associated facilities** (if any). The Consultant shall produce a concise and comprehensive project description supported by maps, plans, graphs and charts to provide an easy and structured overview. The description shall be based on information on existing project reports and documents (e.g. this may be an extract from the pre-feasibility study or other design documents) and illustrate the geographic layout of all key components. The level of detail of the project description shall be commensurate with potential project effects on the receiving environment. This may include –depending on the project – energy demand and consumption, nature and quantity of the materials and natural resources (including water) used, number of workforce that will be involve at the peak of the project etc.

   The ESIA report shall include maps at appropriate scales to illustrate the general setting of project-related development sites and associated facilities, as well as surrounding areas likely to be impacted. These maps should include:
   - Topographic contours, as available,
   - Locations of major surface waters, roads, railways, town centers, political boundaries, parks and reserves, and ecologically sensitive areas.
   - (As available), maps to illustrate existing land use, including agricultural, industrial, residential, commercial and institutional development, forests, grazing areas etc.

b. Assessment of Alternatives. A systematic identification and consideration of feasible alternatives to the Project in terms of location, technology, design and scale in terms of potential environmental and social impact shall be compiled. Specifically, the alternative analysis should provide an overview of the main reasons and rationale for selecting the chosen option, including a comparison of the environmental and social effects. The analysis should include the 'business as usual' option. Mitigation and compensation measures should be considered when assessing alternatives, both with a view to strengthening the feasibility of the Projects, and to improving the Project's design. The Alternative Assessment chapter shall contain a description of the reasonable alternatives that were assessed and an indication of the main reasons for selecting the chosen option with regards to their environmental and social impacts and risks.

c. **Data collection and description of the baseline environment.** Based on the scoping results the Consultant shall collect, collate and present baseline information on the natural (biological and physical) and human environments (social, cultural and economic) of the study area by qualified

experts. This baseline description shall be derived from both secondary sources and fieldwork to collect primary data where required and should be inclusive of, but not be limited to:

- Physical environment (geology, ground topography, climate, air quality etc.);
- Biological environment (i.e., flora and fauna types and diversity, endangered species, sensitive habitats, ecosystems and their services etc.);
- Social and cultural environment, including present and projected (i.e., demography, population, land use, planned development activities, infrastructure facilities/community social structures, employment and labor market, sources and distribution of income, cultural/religious sites and properties, vulnerable groups and indigenous populations etc., infrastructure and basic social services.);
- Economic activities (agriculture, livestock, industries, tourism etc.).

Data gaps or uncertainties inherent in the baseline description shall be stated and explained. Data presented within the baseline description shall be sufficient to describe the key aspects of the Area of Influence (AoI) of each environmental and social component and be focused on identified determinants such as project location, design or operational controls. Baseline description shall also indicate the accuracy, reliability and sources of the data presented. Based on the Consultants' professional experience and judgement, required studies or surveys to be performed for baseline data gathering shall be presented in the document, such as:

- Biodiversity Assessment including critical habitat assessment
- Cultural Heritage Assessment
- Cumulative Impact Assessment
- Socio-economic survey
- Visual Impact Assessment
- Climate Change Study

The Consultant shall keep into consideration population seasonality when planning to undertake the studies to ensure both a dry and wet season data is represented as far as reasonable possible.

d. **Description of the legislative and regulatory framework and requirements, including a gap analysis with international standards.** The Consultant shall provide a comprehensive and appropriately detailed description of the Zimbabwen legislative requirements and framework relevant to the Project (i.e. describing the key laws, regulations or ordinances etc. in the area of environment, social aspects, labor conditions and occupational health and safety).This description should include the context of national/regional/local environmental and social programs, as well as regional development or sector development frameworks in place. The legislative framework should identify relevant environmental and socio-economic legal requirements (laws) applicable to the assessment and to be adhered to within project implementation (e.g. related to air emissions, wastewater discharge, noise, etc.). Additionally, the Consultant shall describe the relevant international environmental and social obligations of the country (conventions etc.). The Consultant shall further highlight any permitting and licensing requirements which the project will need to obtain.

e. **Assessment of environmental and social impacts and risks of project facilities and activities.** The Consultant will identify the positive and negative environmental and social impacts (direct, indirect and cumulative, regional, local, reversible, temporary and permanent) potentially stemming from the Project. This should include impacts in terms of magnitude, significance, reversibility/potential for mitigation, extent, duration (major, moderate, minor and negligible impacts) during the pre-construction, construction and operation/ maintenance phases as well as for decommissioning or closure and reinstatement. To do so, the Consultant will make use of a robust and consistent qualitative or semi-qualitative methodology. Quantitative data should be employed to the extent possible. The assessment will also compare the identified impacts with the "without project"-scenario

impacts. The chapter should also identify opportunities for environmental enhancement and identify key uncertainties and data gaps. Impact Assessment will also cover cumulative impacts, climate change impacts (and to the extent appropriate) a health and safety risk assessment and community health and safety risks.
The ESIA should take into consideration the assessment of the environmental and social risks and impacts related to the following World Bank Environmental and Social Standards namely, ESS1, ESS2, ESS3, ESS4, ESS5, ESS6, ESS7, ESS8 and ESS10), identification of vulnerable groups, including IP/SSAHUTLC and assessment and management of environmental, health and safety and social risks and impacts related to contractors.

- *ESS2: Labour and Working Conditions.* The ESIA will assess labor risks and working conditions. The assessment will include risk from project activities and key labor risks such as hazardous work, child labor and forced labor, migrant or seasonal workers, discrimination against women, vulnerable groups, etc., labor influx, occupational health and safety, possible accidents and emergencies, among others. The ESIA will identify project workers (direct workers, contracted workers, primary supply workers, and community workers) and will develop Terms of Reference for the preparation of a Labor Management Procedures which will set out the way in which project workers will be managed, in accordance with the requirements of national law and labor requirements under ESS2.
- *ESS3: Resource Efficiency and Pollution Prevention*. The ESIA will determine the source, type, and risks associated with the likely impacts from the solar park on natural resources and environmental pollution, and where it cannot be avoided, the ESIA will propose appropriate measures to minimize, reduce and, where not possible, mitigate, the risks associated with the identified impacts consistent with the requirements under national laws and good international practices such as those set out in ESS 3. Mitigation measures will be included in the environmental and social management plans that will be prepared as part of the ESIA studies for the solar and wind park. The ESIA study should further consider aspects such as climate change and how the project contributes to Greenhouse Gas Reduction, water needs and waste likely to be generated during the life cycle of the Project.
- *ESS4: Community Health and Safety*. The ESIA should assess the risks and impacts of the project on health and safety of the communities that are exposed to the project activities both in the AoI but also in ancillary facilities such as borrow pits, quarry sites, spoils disposal areas, workers' camps, hauling routes, etc. It should assess impacts of labor influx on the communities' health and safety as well as traffic safety, SEA/SH risk to communities and commuters during construction.
- *ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement*. The ESIA will assess the project related land acquisition or restrictions on land use in accordance with ESS5, if any. The Consultant will then determine whether a resettlement action plan (RAP) is necessary, and if so develop the LARAP as per the additional optional task under this TOR.
- *ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources*. The ESIA will determine the source, type, and risks associated with the likely impacts from the solar and wind parks on biodiversity and living natural resources, and where it cannot be avoided, the ESIA will propose appropriate measures to minimize, reduce and, where not possible, mitigate, the risks associated with the identified impacts consistent with the requirements under national laws and good international practices such as those set out in ESS6. Mitigation measures will be included in the environmental and social management plans that will be prepared as part of the ESIA studies for the solar and wind park. The ESIA study should further include the preparation of relevant specific studies such as a bird and bat impact assessment for the wind energy installation. The study will be accompanied with deep biodiversity analysis for identifying, assessing, and mitigating potential environmental impacts

of a project to the biodiversity, ensuring ecological sustainability, regulatory compliance, and the protection of ecosystems and species.

- *ESS 7: Indigenous People/ Sub-Saharan African Historically Underserved Traditional Local Communities*. The ESIA study will assess whether any Indigenous (vulnerable) people/ Sub-Saharan African Historically underserved traditional local communities (IP/SSAHUTLC) have a collective attachment to any of the potential selected sites. If found applicable, the ESIA should propose measures to avoid cultural and physical impacts and if not avoidable propose measures to reduce and mitigate impacts on IP/SSAHUTLC by preparing an IP/SSAHUTLC plan in line with legislation concerning Indigenous Peoples (i.e. conventions and declarations) and good international practices as exemplified in ESS7.
- *ESS8: Cultural Heritage*. To protect cultural heritage, an assessment must be carried out, through consultation with community stakeholders, to establish if there are any sites, structures, graves, and any other key structures impacted by project activities in accordance with ESS8. Chance finds must also be considered and ways to manage these must be stated.
- *ESS10: Stakeholder Engagement and Information Disclosure*. For open and transparent engagement among stakeholders, effective stakeholder engagement must be carried out to improve environmental and social sustainability, enhance acceptance, and make a significant contribution to successful project design and implementation. The stakeholder engagement must be systematic, assess the level of stakeholder interest and support, promote and provide means for effective and inclusive engagement with project-affected parties, and ensure that appropriate project information on environmental and social risks and impacts is disclosed to stakeholders in a timely manner.

f. **Mitigation and Management of Impacts and Risks.** Working in collaboration with the Client, other responsible institutions, agencies, organisations and representatives of affected groups, the Consultant will identify and develop realistic and cost-effective mitigation measures for significant negative impacts predicted to occur as a result of the different project phases (Pre-construction phase, Construction, Operation and maintenance, Decommissioning or closure and reinstatement) - whether direct, indirect or cumulative, temporary or permanent. These measures will avoid, minimize and/or compensate or offset such impacts, in that order of priority to be aligned with the mitigation hierarchy. Any residual negative effects after mitigation measures will be described. These measures will cover all aspects and phases of the project and may include, but are not limited to, changes in the project's footprint, design details and operating procedures, land management, social support, institutional development and capacity building for both government and civil society organisations. The measures will pay particular attention to the principles of sustainability, including equitable social development with minimal impacts on biodiversity and ecosystem services. To ensure that the biodiversity is well analysed and protected the consultant will develop mitigation measures tackling the following: (i) **Avoidance Strategies:** Identify sensitive biodiversity zones to avoid or minimize ecological impact. (ii) **Habitat Restoration & Compensation:** Plan reforestation, afforestation, or biodiversity offsets. (iii) **Wildlife Corridors & Buffer Zones:** Establish buffer zones and wildlife passages to reduce habitat fragmentation and (iv) **Sustainable Land Management Practices:** Implement erosion control, native vegetation retention, and sustainable water use. With regard to social issues, mitigation measures should be developed in line with policy frameworks of the host counties that may exist on various governmental levels and, if applicable, any international policies. (e.g., poverty reduction strategy, policies on infrastructure development, etc.).

g. **Residual Impacts and Risks.** The Consultant will describe key residual impacts and their significance. Environmental and social risks such as the potential for accidents and incidents should also be considered. The Consultant shall also describe proposed contingency planning and measures and evaluate their adequacy. Social risks are context-specific and could include factors such as:

- Economic changes, e.g. inflationary trends;

- Political changes that could make it difficult to implement particular mitigation measures;
- Unforeseen events, e.g. natural disasters;
- Lack of people with the necessary skills to implement mitigation measures.

h. **Compiling relevant ESIA Annexes.** The Annex shall be used to present supporting information to the ESIA to allow for the main text to remain relevant. The Annex shall include:
   - The names of the people responsible for preparing the ESIA
   - The Terms of Reference of the consultancy conducting the ESIA
   - References and sources of information
   - Stakeholder Engagement Plan and Records of public meetings and consultations held
   - The Scoping Report
   - Supporting technical data / Supporting special studies including Biodiversity Management Plan
   - Terms of References for the additional management plans and procedures stipulated in this ToR and as may be identified as relevant by the Consultant
   - A photo log

i. **Preparation of a Non-Technical Summary (NTS).** The Consultant shall compile and include an easy-to-understand NTS of the ESIA and stakeholder engagement. The NTS will serve to inform the general public and other interested parties of project activities. The NTS shall be in the form of a concise, standalone document and should include:
   - A concise summary description of the proposed project;
   - The rationale for the proposed project;
   - The geographical area that the project will influence (AoI);
   - A short description of the baseline in the AoI;
   - Any significant environmental and social impacts;
   - Any significant issues or opportunities;
   - A summary of key aspects of the ESMP;
   - Residual risks/issues and material information gaps or the need for further studies should be highlighted;
   - The nature of the developer's/project's systematic approach to managing the environmental and social aspects of the project including monitoring activities; and
   - A summary of stakeholder consultation held and further activities, information about availability of grievance mechanism and contact details for further information.

The ESIA report shall be presented in a logical and clear format and include an assessment of the impacts prior to and following the implementation of mitigation measures. It should identify constraints associated with the mitigation methods recommended and allow provision for modification.

3.4 Phase 3.2: ESMP report.

Using the ESIA report, the Consultant shall prepare an ESMP, consistent with the requirements and format as should be specified in the ESIA in accordance with the Government of Zimbabwe regulation and ESF, that compiles the impacts and required mitigation measures as identified in the ESIA, as well as the monitoring requirements to ensure that the identified measures are implemented and any unforeseen impact is identified and handled aligned with the ESMP. The ESMP shall include:

- details on specific management plans that will be required
- a table of the commitments based on the mitigation measures identified, which should include details on:
  - the anticipated objectives or target of each measure,
  - related milestones and time frames and

- reporting requirements as well as
- required resources (competencies, human resources, required equipment, materials and budgets required for the implementation of this commitment).

– Details on appropriate monitoring activities to ensure that (a) mitigation measures are effective, (b) unforeseen negative impacts or trends are detected and addressed, and (c) expected project benefits or opportunities are achieved. Indicators should be aligned to elements of the existing pre-project baseline and be (a) Specific, (b) Measurable, (c) Achievable; (d) Relevant and (e) Time-bound.

Note: The Content of ESMP will be specified in the ESIA by the consultant in the consultation with the Client E&S team, Relevant National laws and WB ESF.

Also, the Consultant shall include a precise and specific action plan, detailing required training (technical assistance, equipment and supplies, organizational changes) for the management and monitoring of environmental and social impacts as well as corresponding costs. Where significant residual impacts remain after application of mitigation measures, the Consultant shall propose measures to compensate/offset the identified impacts. The ESMP shall be clearly structured and should cover all Project phases.

3.5 Phase 4: RAP (if needed) – additional task to be priced as Option

The assignment will involve the following tasks:

a. **Carry out socioeconomic surveys and studies**. The socioeconomic studies must start with the census of people impacted and an inventory of loss. The studies will gather data on livelihoods and income in order to establish a baseline for developing the measures of rehabilitating the livelihood and income pre-land acquisition. The studies will be carried out in gender sensitive approach and should also pay special attention to vulnerable households to be affected. The RAP should include the results of a Census Survey on all individuals, households, infrastructure, businesses (large or small, licensed or non-licensed), farms and agricultural concerns, herding pastures, The RAP should also contain photographs and GIS coordinate information on each of the potentially adversely affected entities or PAPs, together the with names of individuals and/or household heads, owners of each entity, names of regular employees, descriptions of the size and composition of all structures; a description of the function of the structure/entity (e.g., gas station, restaurant, market, dwelling, etc.); and information on the value of the structure and average monthly income from the concerns;
b. **Carry out socioeconomic studies in a gender sensitive approach**. The socioeconomic studies and consultations should be carried out in a gender sensitive manner. The different needs and demands of men and women will need to be taken into account in the survey, studies, consultations and designed mitigation measures. To extent possible, disaggregated data would be collected. If needed, consultation with women should be organized separately;
c. **Pay special attention to vulnerable groups.** The studies should help identify and gather information on vulnerable households and households who will be severely impacted, in order to be able to design specific assistance measures for these groups.
d. **Develop the methods for valuing the affected assets**. The consultant shall develop and describe in detail the methods used in valuing those assets that will be eligible for compensation inline with the national Expropriation law and ESS5 of the WB ESF. This method shall be consistent with both national policy requirements and regulations and ESS5. This process should capture the methodology for taking of inventory of assets, values assigned and agreement reached with each identified PAP and consider inflationary realities in the final determination of values. Compensation value should reflect the full replacement cost of acquired assets, and should be based on current market price;

e. **Carry out consultations with various project stakeholders**, including project affected people, on resettlement options, compensation standards, livelihood and income restoration measures; institutional arrangements, and grievance redress mechanisms. It needs to summarize the outcomes from public consultations held with communities and PAPs along the road and include in an Annex summary minutes of each consultation meeting, signed lists of attendance, photographs of the consultations; and the Agenda for the meeting. The Consultants should note that following the preparation of the Draft RAP, further Public Consultations should be held with the PAPs to inform them of the findings and conclusions, and confirm there is general acceptance by the PAPs of the proposed mitigation measures. PAPs who are determined to be eligible for mitigation should (if they agree with the mitigation) sign;

f. **Develop the resettlement measures**. In addition to the compensation, the Consultants will need to design a package of resettlement measures for income restoration, livelihood rehabilitation, and relocation for each category of eligible displaced persons to achieve the resettlement policy. The RAP should also include the feasibility analysis of the proposed resettlement measures;

g. **Design Grievance Redress Mechanisms applicable to local social context**. The Consultants shall describe the options available to PAPs for grievance redress they may have about the process, the identification of eligible people for compensation, the valuing and compensation and any other complaints they may have with the entire process. The RAP shall indicate how these would be disseminated and accessible to them in a way that is clear and comprehensible to the PAPs. The grievance redress mechanism should also have an in-built monitoring mechanism to check on responsiveness to complaints or grievances lodged. The different forms of receiving the complaints should be clearly described together with the different stages of going through the process. In addition, the redress mechanism shall indicate alternatives, in case the proposed mechanism, for any reason, does not respond to all grievances and complaints;

h. **Prepare resettlement action plan (RAP).** The consultant will prepare the RAP based on the findings and results of documentation reviews, socioeconomic studies, and consultation with project stakeholders and project affected persons in accordance with the WB Environmental and Social Framework, specifically focusing on Environmental and Social Standards 5 (ESS 5) on Land Acquisition, Restrictions on Land Use and Involuntary Resettlement. The RAP needs to clearly present detailed information on the proposed mitigation measures for each affected entity/PAP with reasoning for the type and level of mitigation being offered. The contents of the RAP would include but not limited the following:

- **Executive Summary**: including the statement of objectives, legal framework, main impacts, and the mitigation measures, and the budget.

- **Description of the Project**, including the following 1. Key objectives of project 2. Key activities 3. Description of the project areas.

- **Resettlement Impacts**, including
    i. To provide details (or best estimates) on categories and amounts of significant adverse impact, and the number of persons to be affected by each. The text should indicate how these data were obtained. As relevant in each case, this should include: (i) land to be acquired (by Category of use; permanent and temporary acquisition); (ii) housing or other structures to be demolished; (iii) fixed assets taken (e.g., wells, fences, tombs); (iv) crop losses; (v) businesses (and employees) affected by temporary or permanent displacement; and (vi) disruptions to community facilities or services.
    ii. To provide details (or best estimates) regarding identification of any groups who may be particularly vulnerable to hardship. The text should indicate how these data were obtained. As relevant, this should include: (i) Those occupying or utilizing land or

structures without legal title or permit; and (ii) Households vulnerable to hardship because of poverty, age, infirmity, or other limitations to responsiveness.

- **Socio-Economic Status of Project-Affected People: This** section will be the summary of the results and findings of the socio-economic studies and surveys, including:
  i. The results of a census survey covering: (i) The current occupants of the affected area to establish a basis for the design of the resettlement program and to exclude subsequent inflows of people for eligibility for compensation and resettlement assistance; (ii) Standard characteristics of displaced households; (iii) The magnitude of the expected loss - total or partial – of assets, and the extent of displacement, physical or economic; (iv) Information on vulnerable groups or persons, for whom special provisions may have to be made; and (v) Provisions to update information on the displaced peoples livelihoods and standards of living at regular intervals
  ii. The results of other studies describing the following: (i) Land tenure and transfer systems, including an inventory of common property natural resources from which people derive their livelihoods and sustenance, non-title-based usufruct systems, and any issues raised by different tenure systems in the project area; (ii) The patterns of social interaction in the affected communities, including social networks and social support systems, and how they will be affected by the project; (iii) Public infrastructure and social services that will be affected, and (iv) Social and cultural characteristics of displaced communities including a description of formal and informal institutions that may be relevant to the consultation strategy and to designing and implementing the resettlement activities.

- **Policy Objectives, Legal Framework, and Definitions**. This short section normally would consist of standardized text outlining key objectives, principles and definitions to be employed in resettlement planning. This would include reference to Zimbabwe's enabling legislation and major regulations, as well as to WB ESF, and provides essential guidance on objectives and principles that are applicable in projects generating land acquisition and resettlement related impacts. Key policy objectives include: (i) Avoidance or minimization of land acquisition and other adverse impacts; and (ii) Those adversely affected ("displaced persons," as defined below) are compensated at replacement cost for lost assets, and otherwise receive any assistance necessary to provide them with sufficient opportunity to improve, or at least restore, incomes and living standards.
  Legal framework, including: (i) The scope of the power of eminent domain and the nature of compensation associated with it in terms of both the valuation methodology and the timing of payment; (ii) The applicable legal and administrative procedures; (iii) Relevant laws governing land tenure, valuation of assets and losses, compensation and natural resource usage rights customary personal law related to displacement; (iv) Laws and regulations relating to the agencies responsible for implementing resettlement activities; (v) Gaps, if any, between local laws in the country covering eminent domain and resettlement and the World Banks resettlement policy, and the mechanisms to bridge such gaps and (vi) Any legal steps necessary to ensure the effective implementation of Resettlement activities under the project.
  Eligibility, Entitlements Matrix: To clearly define who is eligible for compensation and assistance, the type and extent of entitlements, and ensure fair, transparent, and consistent resettlement measures, aligning with legal frameworks and international safeguard policies to protect affected persons' rights and livelihoods.

- **Inventory and Valuation of Assets.** This section provides the following information: (i) Eligibility criteria (including cut-off dates if necessary) establishing who is entitled to receive compensation (or other forms of assistance in lieu of compensation); (ii) Description of valuation procedures used to establish compensation rates for land, structures or other fixed assets; (iii) Description of

arrangements for delivery of compensation to displaced persons; (iv) Compensation rates for all categories of land acquisition, for all affected areas; (v) Compensation rates for all categories of affected structures, for all affected areas; (vi) Compensation rates for all categories of other fixed assets, for all affected areas; (vii) Transitional support (e.g., moving expenses, temporary living allowances, payment of fees or other transaction costs) to be provided; and (viii) Arrangements for recalculation of compensation rates in case of prolonged delay in delivery of compensation.

- **Project Impacts:** It is critical that the resettlement planning process arrives at a detailed understanding of the likely impacts that the Project will have on those subjected to physical and/ or economic displacement. This enables the development of appropriate compensation and livelihood restoration plans, which in turn ensure that the affected people are provided with the support needed to re-establish their homes, lives and means of existence post resettlement, mitigating the impacts that resettlement may cause.

- **Income and Livelihood Rehabilitation Measures**. This section provides the following information: (i) Arrangements (in addition to compensation) providing sufficient opportunity for those losing land to improve, or at least restore, incomes; (ii) Arrangements, timing and availability for replacement housing, including site preparation and access to facilities and services as needed to improve, or at least restore, living standards; (iii) Relocation or other arrangements necessary for shops and enterprises to resume profitable operation; (iv) Arrangements (e.g., alternative employment, temporary wage support, other) necessary to maintain or restore incomes of workers in affected enterprises; (v) Relocation assistance to renters or leaseholders losing access to land or structures; (vi) Special assistance to be provided to vulnerable groups (e.g., the poor, elderly, disabled); and (vii) Restoration or replacement of community infrastructure and services.

- **Institutional Arrangements** This section identifies organizations or agencies primarily responsible for resettlement implementation. It describes these entities' capacity for effective implementation by reference to links to authority, prior experience with resettlement, and number and training of personnel. This section also briefly describes the implementation timetable, establishing that key implementation measures precede adverse impacts.

- **RAP Budget, Implementation and Funding Arrangements**. This section includes a budget breakdown estimating all resettlement-related costs, including an allocation for contingencies. It also establishes financial responsibility for meeting resettlement commitments, and describes funding flow arrangements. In this section the RAP budget should be linked with a detailed implementation schedule for all key resettlement and rehabilitation activities.

- **Stakeholder and Public/Community Participation**:
    - Strategy for engaging displaced persons and communities in the design and implementation of resettlement activities.
    - Summary of feedback from consultations and how it influenced the RAP.
    - Measures to address Gender and other social Vulnerabilities.;
    - Methods for Consultation with and Participation of PAPs
    - Resettlement Action Plans (RAPs) and Income Generation/Restoration plans

- **Consultation, Disclosure and Grievance Procedures.** This section provides information on the following: (i) Measures taken to consult with displaced persons regarding proposed resettlement arrangements, and to foster their participation in activities essential to improvement or restoration of incomes and living standards; (ii) Disclosure arrangements for the resettlement plan, ensuring that it is made available in a language and location accessible to displaced persons

and the general public; and (iii) Administrative and legal steps displaced persons can take to pursue questions or grievances they may have regarding resettlement implementation.

- **Monitoring and Evaluation Arrangements**. This section briefly describes arrangements for monitoring and Evaluation, for both internal project purposes and external monitoring and evaluation to be conducted by a qualified agency independent of the project office. The scope and frequency of monitoring and evaluation activities should be described.

4.0 SCOPE OF WORK: TECHNICAL SITE STUDIES

- **Site Studies and Investigations**

The Consultant will carry out a series of detailed studies on the sites. These studies will be used to provide a pack of reliable information and data for issue to bidders when the sites are tendered. These studies shall be sufficiently thorough to ensure that bidders are comfortable with all relevant technical and E&S aspects of the sites.

These studies will include:

a. **Topographic survey. (one report)** The Consultant will undertake a topographic survey of the sites sufficient for general planning and site arrangement. The works will include recording the site boundaries coordinates, existing ground levels, terrain and existing features including buildings, structures, services, roads, drains and watercourses. It is to be conducted on a non-intrusive basis (GPS, drones, and/or total stations). The survey will cover the entire land dedicated for the plant plus additional extension beyond the boundary as required including, where appropriate, the grid connection route. The completed survey will be certified by a qualified land surveyor and include topographic maps, GIS/AutoCAD files with contour details, survey report summarizing methodology and key findings

b. **Geotechnical investigations. (one report)** Geotechnical investigations will be performed on the sites sufficient to understand the expected ground conditions and properties of soil, erosion, high groundwater level, rocks, resistivity and to provide information on the nature and extent of any underground obstructions. The geotechnical study will provide preliminary foundation recommendations for the buildings and PV panel structures required for the project. The investigation will include drilling an adequate number of trial pits and boreholes, Standard Penetration Tests (SPT), Dynamic Cone Penetration Tests (DCPT), taking samples for associated in-situ and laboratory tests, completing all required tests and interpreting and reporting on the results of those tests. These works will include electrical resistivity testing, chemical analysis of the soil conditions and groundwater monitoring to ascertain the groundwater table. The final number of drillings will be agreed with the Client with the completion of the E&S screening report.

c. **Hydrological study. (one report)** Alongside the geotechnical study, a hydrological study will be undertaken by the Consultant to provide hydrological information as required for the Projects. This will include assessing surface water flow and drainage patterns, evaluating groundwater levels and seasonal variations, identification of any areas at risk of flooding, including providing estimation of flood flows and flood levels, recommending measures for stormwater management and erosion control. This will also include identifying and quantifying adequate sources of water for the Project, both for construction and ongoing operation of the scheme. The Consultant will provide adequate maps and CAD files. This study should allow bidders to understand the potential risks associated with the sites' hydrology.

d. **Seismic conditions**. **(one report)** The Consultant will carry out a study to ascertain the seismic requirements for the sites based on the published data from the local government authorities or other available sources. This is to allow an appropriate seismic factor to be considered in the design of the buildings and foundations by the bidders.

5.0 DELIVERABLES AND TIMELINE

The Consultant will comply with the following reporting requirements and provide the following deliverables:

Phase 1: Kick-off

Outputs: kick-off meeting in Zimbabwe; site visit; E&S screening report

Timing: the kick-off meeting and first site visit shall be organized within 2 weeks of contract signature, the first draft of the E&S screening report shall be produced within 4 weeks of contract signature; and final report within 6 weeks of contract signature.

Phase 2 – Site Studies and E&S Scoping
Outputs: topographic survey report, geotechnical investigations report, hydrological study, seismic conditions and the biodiversity conditions report,

Output: E&S scoping report.

Timing: the site studies (topographic survey report, geotechnical investigations report, hydrological study, seismic conditions report) shall be completed within 3 months of contract signature.

The first draft of the E&S scoping report shall be produced within 1.5 months of contract signature, and the final report within 2 months of contract signature.

Phase 3 – ESIA and ESMP
Outputs: ESIA and ESMP.

Timing: first draft of the ESIA and ESMP within 3 months of contract signature, final version within 6 months.

Note: The final report is the ESIA report approved both by the Environmental Management Agency (EMA) that provides the Environmental Clearance Certificate and is cleared by the World Bank.

Phase 4 – RAP (if needed)

Outputs: RAP – the decision if RAP is needed shall be made within 1 month of the start of the assignment.

Timing: first draft of the RAP shall be completed within 4 months of contract signature, final RAP within 6 months.

6.0 REQUIRED MINIMUM QUALIFICATIONS AND EXPERIENCE OF (I) THE FIRM AND (II) THE KEY STAFF OF THE CONSULTANTS REQUIRED TO UNDERTAKE THE ASSIGNMENT

6.1 REQUIRED MINIMUM QUALIFICATIONS AND EXPERIENCE OF (I) THE FIRM

Interested consultancy firms shall provide information demonstrating that they have the required qualifications and relevant experience to perform the services described in these Terms of Reference. To successfully accomplish the tasks described herein, the Consultant (as a firm) should meet the following qualifications:

- Minimum ten (10) years of relevant experience in environmental, social, and technical studies for large-scale infrastructure or renewable energy projects.
- Proven experience with the World Bank or other International Financial Institutions' Environmental and Social Frameworks, including preparation of ESIAs, ESMPs, RAPs, and stakeholder engagement activities.
- Successful completion of at least three (3) comparable assignments within the past ten (10) years, involving ESIA and technical studies (geotechnical, hydrology, seismic, topography, biodiversity) for utility-scale solar PV or similar large-scale power projects.
- Capacity to undertake multidisciplinary assignments, either internally or through joint ventures/sub-consultancies.
- Demonstrated experience in environmental science, social safeguards and resettlement, ecology/biodiversity, geology, hydrology, seismology, and topographic surveying**.**

The Consultants may submit a proposal as part of a Consortium, in this case the Consortium will appoint a Lead Consortium member as the main point of contact with the Client. The Lead Consortium member shall be responsible for managing the advancement of different tasks and organizing the different experts if needed. It is absolutely critical and required to leverage local knowledge by partnering (via Consortium or not) with local E&S experts familiar with E&S aspects of the region/area, local context, and applicable national/local legislation. While such partnership is essential to ensure contextual risks and local legal environment are understood and their effects on the Project accounted for, the (Lead) Consultant will retain the ownership and quality control of any output prepared by the local expert.

6.2 REQUIRED MINIMUM QUALIFICATIONS AND EXPERIENCE OF (II) THE KEY STAFF OF THE FIRM REQUIRED TO UNDERTAKE THE ASSIGNMENT

The Consultant's main experts shall include the following senior staff members:

a. **Lead Environmental Specialist**: ESF expertise, track record on E&S impact assessment/ auditing of power projects including solar, with a minimum of 10 years of relevant experience;
b. **Lead Social Specialist**: ESF expertise, track record of social impact assessment, resettlement, and livelihood restoration activities for infrastructure projects, with a minimum 10 years of relevant experience;
c. **Biodiversity Specialist**: nationally or internationally recognized for knowledge of biodiversity values and with proven expertise in carrying out the desired activities, including: (i) experience working in similar habitats in the area of interest, country or the broader region; (ii) experience with application of ESS6 and working with associated databases, assessments or approaches (e.g. IUCN Red List of Threatened Species, Critical Habitat Assessment);
d. **Geotechnical/Hydrological/Seismic Specialist**: with a minimum of 10 years of relevant experience, especially in solar PV projects.

e. **GIS/Topography Specialist:** with a minimum of 10 years of relevant experience.

National E&S Consultants

It is required that if an international firm is selected, it must work in partnership with a national firm. The local experts should include the following staff members: (i) Environmental Specialist, (ii) Social Specialist, (iii) Engagement Specialist, and (iv) Community Laision Officer. All the local staff should have the needed skillsets, education and a minimum of 7 years of experience. The national firm should have familiarity with (i) E&S aspects of the area and local context, (ii) impacts of infrastructure projects especially energy related projects, and (iii) applicable national/local legislation.

The Consultant is expected to spend extensive time in Zimbabwe, particularly for site visits and stakeholder engagement. The Consultant will be responsible for its logistics. The internal coordination of the consortium is the sole responsibility of the Lead Consortium member.