

CONTRACTOR’S ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

The Contractor’s Environment and Social Management Plan (CESMP) was developed specifically for the proposed operations of ASEP to provide general policies, guidelines, codes of practice and procedures in compliance with the Philippine Laws and World Bank Environmental and Social Safeguards Policies. This is intended to ensure due diligence and that activities under the proposed guarantee operations will:

- If not avoid, minimize environmental impacts;
- Protect human health;
- Prevent or compensate any loss of assets and/or livelihood;
- Minimize impacts on IP and cultural assets; and
- Improve positive environmental and social effects including for Indigenous Peoples.

The CESMP aims to foster consistency on addressing environmental and social issues to all agencies involved in safeguards operations. CESMP will provide instructions and methodologies for Project Implementation Unit (PIU) of ECs and Project Management in ensuring environmental and social protection at all phases of the sub-project cycle:

- Determination of the potential environmental and social impacts of the Project;
- Documentation and preparation of environmental and social safeguards instruments including public consultation and information disclosure;
- Conforming to the standards from the World Bank and the Philippine Government through the Department of Environment and Natural Resources and other concerned regulatory bodies;
- Implementation of the agreed environmental and social management plans; and
- Monitoring the compliance of the project from its construction phase up to project turnover.

Furthermore, it includes the following Frameworks for social safeguards:

- Indigenous Peoples (IP) Policy Framework – provides guidance on engagements with affected adversely or positively IP communities, especially in the conduct and documentation of the Free and Prior Informed Consent (FPIC) where IP communities are present
- Land Acquisition, Resettlement and Rehabilitation Policy Framework – provides guidance on the process to be followed when private assets (land, buildings, trees, crops, etc.) are affected adversely by the project

PROJECT BACKGROUND

The construction of the 1 MW Solar grid-tied greenfield solar photovoltaic (PV) power plant for the ASEP RNS Project to be connected to the distribution network in Sultan Kudarat, Mindanao, through Sultan Kudarat Electric Cooperative (SUKELCO). The project’s motive is to increase the source of renewable energy in far-flung communities and promote the use of PV generation plants.

Name of Project	Design, Supply and Installation of 7 x 1.0MWp Grid Grid Tied Solar Farm for Luzon, Visayas and Mindanao Electric Cooperatives (Lot 7- SUKELCO)
Location	Tacurong, Sultan Kudarat
Rehabilitation or New	New Construction
Estimated Total Cost	\$ 1,489,880.51

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This CESMP addresses adverse environmental and social impacts of the proposed project through all project stages, and to enhance project benefits.

- Facilitate implementation of mitigation measures
- Define responsibilities of project developer, contractors, and agencies
- Outline monitoring indicators to determine effectiveness of mitigation measures.
- Provide corrective actions of unanticipated environmental or social impacts and emerging issues.

The potential negative impacts in environmental and social aspects will be mainly in construction part categorized in Pre-construction Phase, Construction and Operation Phase, and Post Construction Phase.

SINO SOAR HYBRID (BEIJING) TECHNOLOGY CO., LTD Environmental and Social Officer, ENGR. ANA CARMELA PARO shall ensure all personnel and contractors adhere to environmental protection measures and specific mitigation measures outlined under this CESMP and report on its implementation as required by the NPC-ASEP PMO. Corrective actions shall be immediately undertaken to rectify any non-compliance/deficiency. During actual implementation of the Contractor's works, additional measures shall be implemented, if those indicated in the CESMP are found insufficient, and to mitigate environmental and social issues/concerns that may arise but are not identified in the CESMP. The Contractor shall shoulder the cost of these measures. The ESO shall also ensure compliance with relevant laws, regulations, requirements and local ordinances pertaining to environmental, social, and health and safety. SUKELCO and the ASEPPMO shall jointly monitor the Contractor's compliance and performance.

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ASEP – RNS Solar Power Plant Project
 SUKELCO - TACURONG, SULTAN KUDARAT
Contractor’s Environmental and Social Management Plan
 SINO SOAR HYBRID (BEIJING) TECHNOLOGY CO., LTD

Project Activity	Potential Environmental and Social Impacts	Proposed Mitigation Measures	ACCOMPLISHMENTS for the month of _____		
			Specific Measures Implemented	Date/ Period Implemented	Proof of Compliance/ Implementation
Land Development and Construction	Air Quality: Dust generation during construction	<ul style="list-style-type: none"> ● Cover stockpiles of excavated material and earthworks (if any) ● SSHT will maintain and clear roads of mud and dirt. ● Routine maintenance of vehicles ● Switch off vehicles when not in use ● Avoid disturbance activities on high wind days ● Spray water on exposed/disturbed soil, roads/paths used by vehicles particularly those near the SUKELCO Office 			
Land Development and Construction	Noise: Disturbance to nearby residents including SUKELCO Office personnel	<ul style="list-style-type: none"> ● Inform SUKELCO about schedule of noisy activities ● Routine maintenance of vehicles, proper mountings and muffling of equipment ● Switch off equipment when not in use for remaining civil and earth works. ● Provide noise protection to all workers 			
Land Development and Construction	Generation of construction debris, domestic garbage, sewage/wastewater and hazardous waste can result to: <ul style="list-style-type: none"> ● Land pollution 	<ul style="list-style-type: none"> ● Contractor disposes all generated waste to the nearest MRF (biodegradable, recyclable, residual waste and construction debris) as there were no areas 			

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	<ul style="list-style-type: none"> ● Water pollution ● Infectious disease 	<p>allocated for waste disposal within SUKELCO premise.</p> <ul style="list-style-type: none"> ● Hazardous waste if any to be properly stored in the contractor’s temporary facility and dispose it in accordance with RA 6969. ● Collect/segregate and dispose of waste in accordance to regulations (RA 9003 – solid waste and RA 6969 – hazardous waste) ● Strict prohibition of (waste) littering within the project site. ● Refrain from throwing/diverting wastes to nearby water bodies ● Ensure and observe good housekeeping and sanitation practices ● ESO will provide orientation to all workers related to on the environmental mitigating measures that need to be implemented at the site. 			
<p>Land Development and Construction</p>	<p>Traffic – delivery of heavy equipment and construction materials</p> <p>Possible damage to the roads inside and outside SUKELCO premises and public roads due to use of Contractor</p>	<ul style="list-style-type: none"> ● Assign traffic officer especially during transport of heavy equipment and delivery of construction and PV materials. ● Use markers and barriers to warn the general public about the presence of holes, trenches or other temporary hazards onsite ● Repair/restore to condition prior to Contractor’s use road that have been damage during conveyance of construction materials/equipment to the site. 			

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Land Development and Construction	Occupational Health and Safety	<ul style="list-style-type: none"> ● Supply potable water for construction workforce onsite ● Provide sanitation facility to workers through the use of SUKELCO’s existing toilet facility near the construction site, with the permission of the EC Provide first aid supplies on site and designate an accredited first aider ● Provide an emergency vehicle for immediate transport ● All contractors’ workers must be given site induction 			
Land Development and Construction	Exposure of Employees of Contractors/third-party consulting firms to COVID19 and other infections	<ul style="list-style-type: none"> ● A detailed orientation will be prepared aimed at the prevention of COVID-19 and other infectious diseases will be provided to workers. ● Covid-19 policy will be implemented and followed during the project cycle. ● All workers will report to Chief Engineer/Project In-charge in the event they get infected with the COVID-19 virus with immediate effects. ● Relevant Personal Protective Equipment (PPE) will be provided to every worker at all working sites. (The cost for procuring PPE to be borne by the contractor.) 			
Land Development and Construction	Construction Risk. Construction workers as well as the general public will be exposed to unsafe and hazardous condition.	<ul style="list-style-type: none"> ● Orientation of Safety and Health Policies of both EPC and EC ● Mandatory 8-hour safety training to all workers. 			

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	<p>Heavy Equipment/Vehicle hazards to the personnel and the general public entering SUKELCO premises</p>	<ul style="list-style-type: none"> ● The Construction Safety and Health Program submitted and approved by Dole will be implemented and followed during the project cycle. ● Comply with DOLE’s OSH/CSH standards and requirement ● Conduct daily toolbox meeting in accordance with the DOLE approved CHSP ● All workers should be required to strictly observe safety standard measures and wear personal protective equipment. ● Install safety and warning signs at the zone dangerous in contact of people inside the Plant. ● Cordon off the construction area to prevent exposure of outsider (general public) to safety hazards at the site. ● Provide adequate guard rails to all stations that need blocking protection. ● Install road signs at the main gate of SUKELCO compound which will be used for ingress/egress of CHE that necessitates awareness and assign staff that will manage traffic at the site at all times. ● Speed limit up to 15kPh to contractor’s service, delivery and all moving vehicles. ● Install speed limit signage's to 			
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		locations within the premises especially in the proven accident-prone areas.			
Personal activities of workers	Lack of appropriate facilities for sleeping, rest, sanitation, eating, water supply and other workers' needs can lead to unclean environment and health concerns	<ul style="list-style-type: none"> ● Hire local residents who do not need accommodations ● Provide accommodation to workers who are not local residents (outside Sukelco property) ● Provide rest area, mess hall, water supply at the work site. Coordinate with and seek written consent of SUKELCO on the use of additional space within the EC's premises, as necessary ● Implement health and sanitation rules to keep the site clean ● Proper segregation and disposal of garbage ● Provide proper sanitation facility to workers through the use of SUKELCO existing facilities, with the consent of SUKELCO 			
Land Development and Construction	<p>Water Pollution</p> <p>Soil erosion due to disturbed soil at the site could lead to deposition of excessive amount of sediment to nearby canal and possible the rice field.</p> <p>Land degradation and other impacts of quarrying</p>	<ul style="list-style-type: none"> ● Use of septic tank to manage domestic wastes of site workers ● Proper storage and disposal of hazardous wastes and garbage ● Construct a proper drainage system including a temporary diversion canal in accordance with the flood risk analysis to minimize transport of soil/sediment to nearby irrigation canal. ● Maintenance of the drainage/canal within project site. ● If fill materials need to be procured, 			

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		said materials will be sourced only from permitted quarry sites. Secure a copy of permit and licenses from the supplier of fill materials.			
Various activities at site	Potential conflicts among workers who may have different culture and beliefs	Contractor will Implement Code of Conduct and ensure workers are given orientation on said Code including site rules			
Post-Construction	Disposing wastes properly so that they are not dangerous to the environment. Site Clearing: Cleaning the site after construction	The contractor will clean the site carefully and remove all waste materials as spelled out in the construction bidding.			

Others (describe)

The project site is not located in a vulnerable community, and has no historical and cultural value. The nature of the solar power project and its scale ensures that the Project will not cause any significant, adverse environmental and social impacts during construction, operation, and decommissioning. Only minor and temporary environmental disturbances would be experienced at the project site during construction and operation, and they will be curtailed through the implementation of the EMPS. SINOSOAR is fully committed to its environmental and social responsibilities, which include compliance with NPC, WB, health and safety regulations, DOLE and DENR requirements.

Note: Columns 1 to 3 to be filled out based on the checklists in the Environmental Code of Practice that the Contractor shall accomplish. CESMP must be signed by the Environmental and Social Officer (ESO) and Contractor’s Project Manager, and submitted to the PMO prior to construction Columns 4 to 6 are to be filled out during construction to report on the implementation of the mitigating measures actually undertaken. Monthly report is to be submitted to the EC for validation, signature and submission to the PMO.

Prepared By:



ENGR ANA CARMELA PARO
ESO

Approved By:



MR. CONG ZHANG
Chief Engineer