

CONTRACTOR'S ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (CESMP)

Design, Supply and Installation of 1MWp Grid Tied Solar PV Plant for Socoteco II

**ATLANTIC BLUE Sdn Bhd and
EDWARD MARCS PHILIPPINES INC.
JOINT VENTURE**

CONTRACTOR'S ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (CESMP)

The main purpose of the ESMP is to guarantee that environmental and social impacts, risks and liabilities identified are effectively managed during the construction, operation and closure of the proposed project. The ESMP main objectives is the following:

- To minimize the possible degradation of the areas.
- To make sure that the project will comply with relevant environmental and social laws by the government and agencies.
- To enhance the positive impacts of the project to the area.
- To identify roles and responsibilities of stakeholders involved in this project.
- To propose systematic process for monitoring compliance.
- To correct and improve the findings and result from monitoring activities.

This ESMP will act as a quick guide for the Contractors and other workers to follow the correct steps to enhance the positive aspects and to reduce the negative impacts of the proposed project.

The ESMP includes the following principles based on the risks and impacts identified:

- **Labor Management Procedures** – Labor Code and other laws and policies of the Government especially in the Department of Labor and Employment (DOLE) relating to working conditions, promotion of safety and health at work, fair treatment and non-discrimination, prevention of forced labor, child labor and protection of vulnerable workers will be observed like
- **Health Protocol** – To prevent COVID 19 and other contagious diseases from spreading, safety measures will be observed during the construction. Sanitation, social distancing, and other safety precautions will be strictly implemented.
- **Gender equality** – RA 6725, RA 10911 and other laws and policies will be observed to protect employees and job applicants from employment discrimination based on race, color, religion, sex, and national origin.
- **Environmental Impacts** - Environmental Impact Assessment Law (PD 1586), Toxic Substances and Hazardous Waste Management Act (RA 6969) Ecological Solid Waste Management Act (RA 9003), Clean Water Act (RA 9275) and other DENR Laws and Policies will be observed during construction. This will help conserve and protect our environment from possible destruction's caused by the project.

PROJECT BACKGROUND

World Bank-assisted Project aims to provide renewable energy to increase the capacity of electricity in the Philippines. The project will be Design, Supply and Installation of 7 x 1.0 MWp Grid Tied Solar Farm for Luzon, Visayas and Mindanao Electric Cooperatives. This project in coordination with National Power Corporation (NPC) and South Cotabato II Electric Cooperative, Inc (SOCOTECO II) will help for more stable and efficient supply of electricity in the area.

Name of Project	:	Design, Supply and Installation of 1MWp Grid Tied Solar PV Plant for Socoteco II
Location	:	Brgy. Apopong, General Santos City, Province of South Cotabato
Rehabilitation or New	:	New Construction
Estimated Total Cost	:	<u>₱ 58,113,792.23</u>

This project will provide the following benefits:

- **A more stable and efficient supply of electricity:** This will reduce the electricity outage in residential and industrial areas, which will help production not to be interrupted.
- **Reduction of energy cost:** With renewable energy application, households and industry can save money.
- **Additional Landmark:** This will add attraction in General Santos City.
- **Job Opportunities:** The project will promote more job opportunities to the local citizen.
- **Less Pollution:** With this Solar Farm, green energy will be produced, and carbon emission will be reduced.

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.

AB-EMPI Environmental and Social Officer, ENGR. ANA CARMELA PARO shall ensure the implementation of preventive and mitigation measures 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. SOCOTECO II and the ASEP-PMO shall jointly monitor the Contractor's compliance and performance.

ASEP – RNS Solar Power Plant Project
SOCOTECO II - BRGY APOPONG, GENERAL SANTOS CITY
Contractor’s Environmental and Social Management Plan
ATLANTIC BLUE Sdn Bhd and EDWARD MARCS PHILIPPINES INC. JV

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
Pre-Construction: Various activities at site	<ul style="list-style-type: none"> ● Construction Risk ● Health Risk ● Conflicts among workers who may have different culture and beliefs 	ESO, SO's/HO, and Grievance Officer to conduct orientation for site workers, including subcontractors' personnel on the following prior to start of construction: <ul style="list-style-type: none"> ● Mitigating/preventive measures in the CESMP for which workers have a responsibility in the implementation. ● Occupational health and safety Per DOLE-approved CHSP, site workers are to receive an 8-hr safety training ● A detailed orientation will be prepared aimed at the prevention of COVID-19 and other infectious diseases will be provided to workers. ● Workers' Code of Conduct ● Site Rules 			
Land Development and Construction	Exposure of Employees of Contractors/third-party consulting firms to COVID19 and other infections	<ul style="list-style-type: none"> ● The Policy and Management for Covid-19 will be implemented and followed during the project cycle. ● All workers will report to PIC/HR in the event they get infected with the COVID-19 virus with immediate effects. ● Posters and other education/ illustrative materials on COVID-19 and other infections will be posted 			

		<ul style="list-style-type: none"> at the project site. ● 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	<p>Construction Risk. Construction workers as well as the general public will be exposed to unsafe and hazardous condition.</p> <p>Heavy Equipment/Vehicle hazards to the personnel and the general public entering SOCOTECO II 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 by Engr Arniel Adajar (for daily activities, schedules and accomplishment), Engr Ana Carmela Paro and Mr. Jason Librado (for Safety and Health Officer). ● 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 SOCOTECO II Complex which will be use for ingress/egress of CHE that necessitates awareness. ● Mr Frederico Nemenso will be assign as traffic safety staff during the transport of heavy equipment and 			

		<p>delivery of construction and PV materials.</p> <ul style="list-style-type: none"> ● Set up speed limit to contractors service, delivery and all moving vehicles. ● Install speed limit signage's to locations within the premises especially in the proven accident-prone areas. 			
<p>Delivery of construction materials; transport of mechanical equipment to site</p>	<p>Dust, Noise can create nuisance/disturbance and degradation of air quality</p> <p>Transportation of supplies/ materials/equipment from source to project site will cause damage to existing roads</p>	<ul style="list-style-type: none"> ● Entry to SOCOTECO II premises only during operating hour between 8:00 a.m. and 5:00PM. □However, the entry of heavy machinery as well as delivery schedule of materials at site will be between 1PM to 5PM. ● Works beyond stated operating hours, concerned personnel (PIC) must secure a special work permit from the EC. ● Cover loaded trucks with canvass or any equivalent coverings to prevent dust and debris from falling. ● The contractor will spray water to reduce the dust when the weather is dry and periodically clean stagnant debris. ● The contractor will put a signboard summarizing the construction activities and schedule for completion of tasks to make the people in the surrounding areas aware of the construction being done at the site. ● Regular maintenance and repair of existing road within SOCOTECO II premise (from the main gate down to the project site) by the contractor. Damage road will be restored to its original condition. 			

Land Development	Use of fill materials from quarry sites can contribute to land degradation. Loose soil can erode and cause sedimentation of drainage system and water bodies	<ul style="list-style-type: none"> ● Sourcing fill materials from permitted quarry sites. An estimated 3500 to 7500 cu.m of fill materials (sand & gravel) will be procured. ● Soil will be compacted immediately. ● Sediment traps, surface runoff diversion channel will be provided as necessary ● Soil stockpiles will be located away from drainage systems ● Ensure flow of water in drainage canals/systems are not blocked 			
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 ● Provide rest area, mess hall, water supply at the work site ● 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 SOCOTECO II existing facilities, with the consent of SOCOTECO II 			
Construction and Installation	Waste oil and grease from equipment could contaminate soil and surface water.	<ul style="list-style-type: none"> ● Provide oil and grease trap on runoff path directing out from the equipment base. ● Implement proper storage and disposal of grease and waste oils (if any) 			
Construction and Installation	The inadequate disposal of waste materials and hazardous materials (fibro-cement, fuel, oil, cement etc.) can lead to land and water pollution.	<ul style="list-style-type: none"> ● Segregation at source and regular disposal of discarded construction materials at LGU/DENR approved sites. Gen San has a Centralized MRF and sanitary landfill where the wastes are brought. ● Provide segregation box/trashcan and scrap site in the project site. 			

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		<ul style="list-style-type: none"> ● Collect cement sacks, excess steel bars and lumber for disposal or sell the reusable waste materials to the local recycler. ● Strict prohibition of (waste) littering within the project site. ● Contractors will store clean construction materials, reduce excavated debris, and waste generation whenever feasible. ● Contractors PCO should separate hazardous waste (if any) from other wastes and handle/dispose them according to established environmental guidelines. ● Practice Solid waste management program in reference to the program of RA 9003 and RA 6969. ● Damage panels, inverters and other equipment will be temporarily placed in the storage area of TEMFACIL then will be transported to Contractors warehouse. ● Requested to use SOCOTECO II disposal area for composting of biodegradable wastes (refer to attached mapping - SOCOTECO II approved disposal area). With coordination of SOCOTECO II GSO. ● Coordinated with Brgy Apopong related to waste disposal schedule. Schedule of garbage collection is every Wednesday. 			
Construction and Installation	Water Pollution	<ul style="list-style-type: none"> ● Use of septic tank (SOCOTECO II facility) to manage domestic wastes of site workers ● Proper storage and disposal of hazardous wastes and garbage ● Maintenance of the Canals, and drainage system. 			
Post-Construction	Disposing wastes properly so that	The contractor will clean the site			

	they are not dangerous to the environment. Site Clearing: Cleaning the site after construction	carefully and remove all waste materials as spelled out in the construction bidding.			
Others (describe)					
There is no significant environmental and social issues expected to arise during the construction of the project. The contractor will implement appropriate preventive and mitigating measures and comply with relevant World Bank safeguards policies and Philippine regulations					

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
 AB - EMPI (ESO))

Approved By:


ENGR ART TRESFUENTES
 AB - EMPI (Project Manager)

Noted By:


ENGR WINNIE FRED ROTOR
 (Designation of EC's Personnel)