

Main Office: Manolo Fortich, Bukidnon

Mobile No.: 0998-843-8334 / 0935-114-3095 Branch Office: Malaybalay City, Bukidnon Mobile No.: 0998-843-8335 / 0935-114-2484

ENVIRONMENTAL AND SOCIAL MANAGEMENT & MONITORING PLAN (BUSECO PV MAINSTREAMING PROGRAM – WINDOW 2)

I. **PROJECT OVERVIEW**

Solar PV Mainstreaming is a Department of Energy program that seeks to "mainstream" provision of solar home systems (SHS) as a utility service offering of electric cooperatives and other regulated electricity suppliers, which was subsequently supervised by the National Power Corporation (NPC). BUSECO is one of the electric cooperatives in the Philippines granted with 2,500 units Solar Home System Package for Window 2.

Filling an important gap in the Philippines current push to fully electrify the country's households by sometime in the 2020s, SHS will provide a reliable and viable electrification especially in far-flung sitios within the BUSECO franchise area which are isolated and dispersed.

PV Mainstreaming includes an output-based subsidy, with initial financing from the European Union and the Global Partnership on Output Based Aid (GPOBA), to buy down the initial cost of connection and a regulatory framework that provides for customer payments for operations, maintenance and replacement of systems over time and thereafter BUSECO will own and maintain the SHS and also collect an amount of Php 222.00 per month in accordance to the ERC regulated and approved SHS tariff.

Map below shows the Ten (10) districts of BUSECO franchise area where the total of 2,500 beneficiaries of Solar PV Mainstreaming project for window 2 came from.

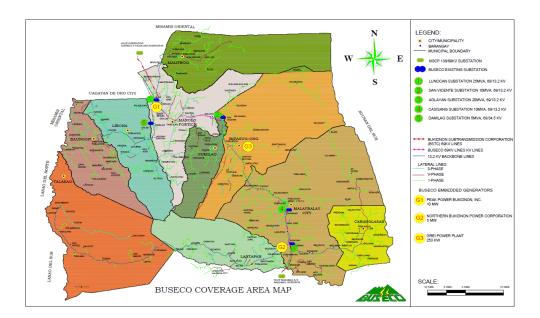


Figure 1: BUSECO System Map



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Ш. **BUKIDNON PROVINCE PROFILE**

Bukidnon is a province in the Philippines situated in the Northern Mindanao region occupying the northern-central section of Mindanao. Its capital is the City of Malaybalay. The province has a land area of 10,498.59 square kilometers or 4,053.53 square miles. Its population as determined by the 2015 Census was 1,415,226. This represented 30.18% of the total population of the Northern Mindanao region, 5.86% of the overall population of the Mindanao island group, or 1.40% of the entire population of the Philippines. Based on these figures, the population density is computed at 135 inhabitants per square kilometer or 349 inhabitants per square mile. Bukidnon is bordered, clockwise from the North, by Misamis Oriental, Agusan del Sur, Davao del Norte, Davao del Sur, Cotabato, Lanao del Sur, and Lanao del Norte.

BUSECO is located on the Northern Part of Bukidnon providing viable and reliable electricity to its Member-Consumer-Owners throughout the Ten (10) Districts shown on the above map. Bukidnon is an agricultural economy. It is a major producer of rice, maize, sugar, rubber, pineapple, banana, tomato, flowers, cassava, and other fruits and vegetables. Almost all large firms operating in the province are into production or processing of these agricultural products. Recognized by the Food and Agriculture Organization as a foot-and-mouth disease-free province, it is also a major producer of poultry, hogs, goats, and cattle, thus, making Bukidnon as potentials for big investments in Northern Mindanao.

PHOTOS OF COMMUNITIES AT THE BUSECO'S PVM WINDOW 2 SITES







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Environmental Code of Practice Environmental Safeguards Guidelines for Small Civil Works ASEP – PV Mainstreaming Window 2

General Information							
Name of Project	PHOT	PHOTOVOLTAIC MAINSTREAMING PROGRAM (PVM)					
Name of engineer/ technical officer	MIKEF	RON N.	FALLARC	CUNA			
Date of Site Study Completed	March	18, 20	21				
Information Source	BUSE	CO sur	veyors/cor	nmunity organizers			
Proposed Output	Comp	lete Sol	lar Home S	System (SHS) Installation			
Environmental Issues	Yes	No	Unknown	Remark/Recommended Action			
Adequacy of space for construction		х		Since the solar home system package is designed in compact and the solar panel has minimal space requirement.			
Adequacy of access to the construction		х		Most of the communities are situated in far flung areas, but within the community, the households are directly accessible.			
Adequacy of space to build	The solar home system						
Any impact on areas adjacent to the site	x			Noise from the installation activities and the installers, although not loud, may cause temporary disturbance to dwellers in the adjacent area. Coordinate and inform the neighbors of the SHS installation schedule/activities			
				Perform the installation during day time only to avoid disturbance specifically during rest period or night time.			
Potential interruption or limitation of access to dwelling or business on the site		х		Installation will not limit the access of community to its dwelling and business since it will just happen for one or two days only and will be limited within the household owners' properties.			
Potential impact to high cultural value on the site or within the immediate vicinity	x			Indigenous Peoples are direct beneficiaries of the PVM project. An IP Plan is prepared and implemented to avoid adverse impacts on their culture. The project activities will be properly coordinated with the IP community leaders/elders.			

Checklist-1: Construction Site Checklist



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Potential deterioration of air and water quality and noise in the immediate vicinity.		x	Solar panels do not emit pollution to air, water and noise thus no potential deterioration to the above mentioned.
Interruption or limitation of access to sidewalks, power and telephone lines, water and sewerage, sanitation system, and other environmental services.		x	Installation of SHS will not cover a large- scale area thus will not limit access on any of these facilities
Reduction of green areas		x	Better to install the solar panel at strategic location where it will not necessitate cutting of trees although trimming may be needed for those with shading issues.
Flooding on the site in the wet season (write down how deep and how long it usually floods on the site)		x	No flooding occurs in the project sites which are located in mountainous areas.
Others			
Safety and health of the people in the community.	x		 Advise the SHS recipient and neighbors to keep safe distance from the Solar Home System installation area to prevent untoward incidents for the people and for the equipment. Follow the Health Protocols of Department of Health (DOH) and the directives of Local Government Unit (LGU) during field activities. Collect and dispose of face masks, face shields, gloves, etc. used by workers in accordance with DENR regulations for infectious wastes
Safety and Health of the workers.	x		Workers to undergo health and safety training and orientation prior to installation works. Clean the work area and dispose all waste generated during installation



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Safety and Health of the workers.	x	For peace and order concern, coordinate Barangay LGU before entering the Barangay and Sitio's/Purok's. Laborers must always work safely and always wear prescribed PPE to avoid any untoward incidents. Ensure adequate and proper accommodation for field workers. Conduct toolbox meeting before the activity. Workers must always ensure that their body condition is fit to work.
Conflict/issues among workers and social issues/ concerns with people in the communities	x	Conduct proper orientation for the workers and keep proper courtesy and respect to the people in the community in order to avoid conflicts. Implement Code of Conduct for workers. Prioritize the employment opportunity for the local residents in the area. SBU must follow the DOLE rules and regulations for all workers Establish a Grievance Redress Mechanism to resolve project-related complaints

The installation of Solar Home System (SHS) under the Photovoltaic Mainstreaming Program has a low environmental issue since the technology or the solar panels are eco-friendly which generate electricity through radiation from the sun and considered as green and renewable energy. Unlike other conventional large solar plants this solar panel installation requires small area only which can be install above the beneficiary's rooftops. So, cutting of trees and even land development preparation is not necessary. The installation requires minimal time; thus, it will not cause long time disturbance to the community.

Prepared by:

MIKERON N. FALLARGUNA MSE Division Chief/PVM-Project Monitoring Officer



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Checklist 3: Good Environmental Practices for Small Civil Works

Phase	Issue	Measure
Screening	Adequate space and access - possible interruption within its vicinity; other issues captured in Checklist.	The selection should avoid sensitive environment and land issues which may be caused by the installation; other measures recommended in the Construction Site Checklist should be adopted.
Construction	Noise: Noise from the devices/equipment used in the installation may cause disturbance to others Installation debris: the inadequate disposal of waste materials and hazardous materials	Installers will use environment-friendly equipment/devices and limit installation hours to minimize possible disturbance to local livelihood. Installers will reduce waste generation whenever feasible. Installers should separate hazardous wastes from other wastes and handle them according to established environmental guidelines. Installers should separate recyclable wastes from non-recyclable ones. All wastes should be properly handled. Any illegal waste dumping or burning is prohibited.
	Disturbance: Nearby residents will be disturbed by prolonged installation activities Informing the public about installation and work schedules	The installers will perform the activities within appropriate time frame which does not disturb living of local residents. The installers will inform the community about the installation activities and schedule for completion of tasks.
Post- Construction	Site Clearing: Cleaning the site after installation - disposing wastes properly so that they are not dangerous to the environment.	The installers will clean the site carefully and remove all waste materials.
Others	Covid-19 protocol	The installers shall comply with the Covid-19 protocol during construction at all times

Prepared,by:

MIKERON N. FALLARCUNA MSE Division Chief/PVM-Project Monitoring Officer



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III. ENVIRONMENT AND SOCIAL MANAGEMENT PLAN (ESMP) ASEP - PV MAINSTREAMING PROGRAM - WINDOW 2

PROPONENT: BUKIDNON SECOND ELECTRIC COOPERATIVE, INC.

	Drainet	Potential			ıtional sibilities	For the pe	Accomplish	ments to	
Project Phase	Project Activity	Environmental and Social Impacts	Proposed Mitigation/ Enhancement Measures	Implement	Supervise	Specific Measures Implemented	Date Implemented	Estimated Cost	Proof of Compliance/ Implementation
Pre- Installation	Solar Home System (SHS) beneficiaries profiling, marketing, stakeholder engagement	Risks of SBU Personnel because of possible exposure to viruses and others diseases from the field.	Follow the Health Protocols of Department of Health (DOH) and the directives of Local Government Unit (LGU) during field activities.	Solar Business Unit (SBU)	BUSECO's Safety Officer Project Monitoring Office (PMO)				
	Processing of application and membership.	Safety risks to SBU Personnel due to possible animal bites, adverse		SBU and Surveyors	BUSECO's Safety Officer/ Supervisor				
		weather condition, activities of insurgents in the area.	Use protective clothing/ PPEs	SBU and Surveyors	BUSECO's Safety Officer/ Supervisor				
			Check weather updates and site conditions before doing field activities during inclement weather	SBU and Surveyors	BUSECO's Safety Officer/ Supervisor				
			Always wear the company identification card (id) and proper uniform during field works.	SBU and Surveyors	BUSECO's Safety Officer/ Supervisor				



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		Possible adverse impact to cultural values of Indigenous Peoples in the area	Coordinate with the leader of Indigenous People in the area when entering their community. Prepare and implement an IP Plan	Surveyors	SBU, PMO SBU, PMO		
Implementation/ Installation	Installation of Solar Home System.	Disturbance of the dwellers in the area adjacent to SHS site	the SHS installation activities and schedule. Perform the installation during day time only to avoid disturbance specifically during rest period or night time.	Installer	SBU, PMO		
		Safety and health risks to the people in the community.		SBU and Installer	BUSECO's Safety Officer, SBU, PMO		
		Generation of Solid wastes	Collect all the excess materials generated from the installation such as but not limited to cartoons, plastics and polyurethane foam. These are subject for EC's re-used or proper disposal.	SBU and Installer	SBU, PMO		
			Clean the site carefully and remove all generated waste materials upon completion of works.				



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Safety and health risks to the people in the community.	Advise the household members and neighbors to keep safe distance from the installation site to prevent untoward incidents for the people and for the equipment	SBU and Installer	BUSECO's Safety Officer, SBU, PMO		
	<i>'</i>	SBU and Installer	BUSECO's PCO, SBU, PMO		
	Provide health and safety training and orientation to workers prior to installation works. Provide PPEs to workers.	SBU	BUSECO's Safety Officer, PMO		
	Work safely and wear prescribed PPEs at work to avoid any untoward incidents.	SBU and Installer	BUSECO's Safety Officer, PMO		
	For peace and order concern, coordinate Barangay LGU before entering the Barangay and Sitio's/Purok's.	SBU	SBU, PMO		
	proper accommodation for workers at the site	SBU	SBU, PMO		
	Prioritize in the employment qualified local residents in the area.	SBU and Installer	SBU, PMO		



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	1	1				
		with people in the	Follow the DOLE rules and	SBU and	SBU,	
		communities	regulations for all the	Installer	PMO	
			workers.			
			Implement Code of	SBU and	SBU,	
			Conduct and provide	Installer	PMO	
			orientation for SBU			
			personnel and Installers			
			Establish a Grievance	SBU and	SBU,	
			Redress Mechanism to	Installer	РМО	
			resolve complaints/ issues			
Operation and	Maintenance	Interruption of	Provide SHS beneficiary	SBU	SBU, NEA	
Maintenance	and or	access to	hotline number/contact			
	replacement	electricity due to	information for reporting of			
		SHS malfunction	concerns/requesting for			
	component	and damage	repair services			
	such as solar	and damage	Resolve complaints/	SBU,	SBU, NEA	
	panels, LED		concerns through the	Grievance	SDS; NEA	
	bulbs and			Officer		
			Grievance Redress	Oncer		
	batteries.		Mechanism.			
		Generation of	Ensure availability of	SBU Head,	DENR	
		Hazardous	proper storage facility for	PCO		
		Wastes (HW) from	used/defective/ damaged			
		damaged and	batteries and other SHS			
		pulled-out Solar	components. BUSECO will			
		Home System	prepare a separate			
		Components.	storage facility for the			
			Hazardous Waste (HW) of			
			PVM. The waste will be			
			stored accordingly with a			
			separate compartment			
			each based on HW			
			categories which will be			
			properly conceal to ensure			
			proper handling, storage			
			and safety. Maximum			
			and Salety. Maximum			



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storage period for all HW is one (1) year.				
Conduct regular monitoring of HW storage facility and ensure recording of HW stockpile which will be conducted every month. Copies of reports shall be kept and submitted for ESMP compliance.		DENR		
Disposal of used batteries, defective solar panels and LED bulbs through DENR- accredited firm for recycling/treatment will be done every year. BUSECO's Hazardous Waste Management Plan is attached.	PCO	DENR		
BUSECO has coordinated with MARITRANS RECYCLER, INC. with TSD and TP Registration No. OL-TR-R7-22-000025 & OL-TR-R7-22-000025 respectively located Sitio Baas, Pagsabungan, Mandaue City, Cebu as the possible contractor for the transport and disposal of generated hazardous waste from PVM.	Contractor TSD	DENR		



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			BUSECO will ensure	PCO	DENR		
			registration with the DENR				
			as a hazardous waste				
			generator on or before				
			September 2021.				
Decommissionin	Pull-out and	Generation of			DENR		
g	retrieval of	hazardous wastes	components shall be done	Installer			
	Solar Home		through DENR-accredited				
	System.		firm for recycling/treatment				
		System units.	will done every year.				
			BUSECO's Hazardous				
			Waste Management Plan				
			is attached.				
			BUSECO has coordinated	PCO/	DENR		
			with MARITRANS	Contractor			
			RECYCLER, INC. with	TSD			
			TSD and TP Registration				
			No. OL-TR-R7-22-000025				
			& OL-TR-R7-22-000025				
			respectively located Sitio				
			Baas, Pagsabungan,				
			Mandaue City, Cebu as				
			the possible contractor for				
			the transport and disposal				
			of generated hazardous				
			waste from PVM.				

The implementation of this Environmental and Social Management Plan and monitoring of compliance shall be carried out by BUSECO's Pollution Control Officer (PCO).

Prepa

BELINDA P. ALCAREZ, REE Safety Officer/Pollution Control Officer

MELCHIEN. PONTILLAS, LLB **ISD** Manager



BUKIDNON SECOND ELECTRIC COOPERATIVE, INC. Manolo Fortich, Bukidnon Main Office: Manolo Fortich, Bukidnon Branch Office: Malaybalay City, Bukidnon Mobile No.: 0998-843-8334 / 0935-114-3095 Mobile No.: 0998-843-8335 / 0935-114-2484

ASEP - PVM WINDOW 2 PROJECT BUSECO'S Measures to Prevent the Spread of Covid-19 at the Worksite

		BUSECO's SBU shall ensure coordination with IP leaders/LGU prior to PMES schedule to the respective
		communities.
		BUSECO SBU shall ensure that all personnel for PVM
1	Pre-Membership Education Seminar	Window 2 project are fully vaccinated and should follow
1	(PMES)	minimum standard health protocols, with social distancing
		observed.
	and the second second second	BUSECO SBU shall ensure that the participants should fill out
		COVID-19 health declaration forms and attendance sheets for
-		contact tracing.
1.0		BUSECO SBU shall ensure monitoring of the pre and post
1		work health conditions of personnels, but not limited to,
1	The second s	temperature, health, and exposure monitoring, as preventive measures.
125		BUSECO SBU shall ensure the implementation of minimum
		standard health protocols such as wearing face mask and
2	Delivery and Distribution Solar Home	proper disinfecting of hands using alcohol especially when,
	System	before and after, hauling the SHS units to the respective
		communities, shall be provided, with social distancing
		observed.
		BUSECO SBU shall ensure that transport service are duly
1		disinfected before and after use, shall be provided, with social
		distancing observed.
		BUSECO SBU shall ensure monitoring of the pre and post
-	A BARREL SALE AND A SALE OF	work health conditions of personnels, but not limited to,
	Construction of the second	temperature, health, and exposure monitoring, as preventive
		measures.
2020		BUSECO shall provide for their personnels the necessary
-	and the second second second second	welfare facilities and amenities, such as stay-in accomodation
100		in the respective communities, ensuring compliance to social
12		distancing, proper hygiene, etc.
		BUSECO SBU should be taking the advice of their healthcare
		team and their health and safety specialists in preparing the
		site, although the Project Proponent may also need to assist,
		for example with coordinating responses and/or connecting
		project sites with national/local healthcare specialists.
	and the second	
		BUSECO SBU shall provide proper waste disposal for
3	Installation of Solar Home System	infectious waste such as PPEs and other waste products
		coming from outside the construction premises. BUSECO SBU personnel with manifestations or symptoms
		relative to COVID-19 shall be immediately isolated and
	and the second states of the	quarantined for fourteen (14) days and if necessary, brought
		to the nearest DOH COVID-19 treatment facility under strict
		confidentiality and privacy. Proper protocols in accordance
		with the DTI and DOLE Interim Guidelines on Work Place
		Prevention and Control of COVID-19 shall likewise be strictly
1		observed.
		Given the limited scope of project medical services, the
		project may need to refer sick workers to local medical
		services
		These preparation measures should be communicated not
		only to the workforce but also the local community, to
		reassure them that the movement of staff is controlled, and to
1900		ensure that stigma or discrimination is reduced in the event of
Line and		an outbreak.
Pren	pared by:	Approved by:
		MISAZ
<	- Vre	
	ENIE Q. VISMANOS, REE	MIKERON N. FALLARCUNA, REE
SBU	I-Engineer	MSE-Division Chief/ Project Monitoring Officer



HAZARDOUS WASTE MANAGEMENT PLAN (BUSECO PV Mainstreaming Program - Window 2)

A. Purpose

The Hazardous Waste Management Plan seeks to ensure and maintain a safe and secure environment for the hazardous waste materials. It also responds to the compliance requirements of the DENR-EMB rules and regulations on hazardous waste management. BUSECO is committed to implement the Photovoltaic Mainstreaming Program in manner that activities are designed to reduce the risks of hazardous waste materials by ensuring its proper handling, storage, transport and disposal.

B. Scope

This Hazardous Waste Management Plan is specific on Photovoltaic Mainstreaming (PVM) Program which includes the installation, operation and decommissioning of the Solar Home Systems. All generated hazardous waste materials from the project will be the scope of this management plan.

C. Hazardous Waste Materials

Based on assessment on the Solar Home System Packages there are three materials that contains hazardous waste;

- a. Solar Panels- hazardous due to cadmium and arsenic. Some older silicon solar panels may be hazardous waste for hexavalent chromium coatings. Newer, thin-film solar panels may be hazardous due to copper and/or selenium.
- b. Lithium Battery- it contains a variety of chemicals. Improper disposal has significant consequences, such as environmental pollution and loss of (material) resources. It is highly reactive and difficult to control. Influences such as high temperatures, too high charging voltage, short circuit, or even too much of a heavy strain can cause exothermic reaction.
- c. Light Emitting Diode (LED) Bulbs- it contains a large number of earth metals, such as lead, copper, nickel, silver, gold and arsenic, which have toxic properties and/or are scarce.

D. BUSECO Responsibilities

- a. Designate the Pollution Control Officer (PCO) to supervise the monitoring, control, storage and disposal of hazardous waste materials.
- b. The PCO will process the registration of BUSECO as Hazardous Waste Generator at DENR-EMB. (Note: BUSECO already process the application to DENR 10-EMB for registration as Hazardous Waste Generator)
- c. Install or construct separate storage facility for hazardous waste and segregate according to its kind. Every kind of hazardous waste material will have separate storage boxes for proper segregation and easy disposal. The construction cost for the installation of storage facility for hazardous waste materials has been included in the mitigation plan of BUSECO.



- d. BUSECO through the PCO will tied-up with DENR Accredited Firm for the regular disposal of hazardous waste materials. All hazardous waste materials in the storage facility will be disposed every 1st quarter of the year. In case where the storage facility has become fully filled with hazardous waste materials the PCO have the discretionary functions to call the DENR Accredited Firm to dispose hazardous waste when necessary.
- e. The DENR Accredited Firm which will provide the service to BUSECO for the transport, recycling and total disposal of hazardous waste materials has the responsibility to comply with the regulation using the method approved by the DENR. The firm will issue a certificate to BUSECO for handing out the hazardous waste materials for proper disposal as required.

E. Hazardous Waste Management

- a. Solar Home System beneficiaries will be oriented and given instructions on the proper handling of hazardous waste materials such as solar panels, battery and LED bulbs. They have the responsibility to report immediately when they have noticed a problem occurred on these components of the Solar Home System.
- b. SBU shall respond promptly to evaluate and replace any defective components specifically related to hazardous waste materials. It shall collect and transport with proper handling going to BUSECO hazardous waste storage facility for segregation, labeling and storage.
- c. The defective components related to hazardous waste materials shall segregate according to its kind and place in respective storage boxes within the storage facility. These will be stored in maximum of one year or in any case where the storage reaches its capacity limit.
- d. The PCO will schedule the disposal through the help of DENR Accredited Firm who will provide the service to BUSECO for the proper disposal of the hazardous waste materials.
- e. The DENR Accredited Firm has the responsibility to transport the hazardous waste materials from BUSECO storage facility to disposal area and has the obligation to comply with the regulation for the total disposal of the hazardous waste materials.

Prepared by

MIKERON N. FALLARCUNA, REE MSE Division Chief/ Project Monitoring Officer



Republic of the Philippines **Department of Environment and Natural Resources ENVIRONMENTAL MANAGEMENT BUREAU 10** DENR Compound, Macabalan,Cagayan de Oro City **Website:** http://www.r10.emb.gov.ph Telephone: (088) 856 – 9362

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Certificate of Accreditation

EMB Certificate No. 2020- PCO-1013-1677 (NEW)

After satisfying the requirements of DENR Administrative Order No. 2014-02, Revised Guidelines for Pollution Control Officer Accreditation.

BELINDA B. PATULILIC

is hereby duly accredited as

Pollution Control Officer

of

Bukidnon Second Electric Cooperative, Inc.

Tankulan, Manolo Fortich, Bukidnon

(Category B)

Granted this 28th day of July Twenty Hundred and Twenty.

As such, he shall perform the duties and responsibilities in accordance with Section 10 of DENR Administrative Order No. 02-2014, and renew this Accreditation within thirty (30) days before the expiry date with at least forty (40) hours of cumulative relevant PCO training as participant or twenty (20) hours as a trainer /subject matter expert within the three-year period.

This Accreditation shall be automatically revoked upon resignation / termination of service from the establishment.

Valid until July 27, 2023

ATTY. ABBAS I. LAO O/C-Chief, Clearance & Permitting Div.

 OR
 : 0764674

 Processing fee: 500.00
 Docs. Stamp : 30.00

 LRF
 : 10.00

 Date
 : 7-23-2020

DENR Administrative Order 2014-02, Section 10. Duties and Responsibilities of Accredited Pollution Control Officers

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The accredited PCO shall perform the following duties and responsibilities:

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1) Together with the Managing Head, ensure compliance with the requirements of PD 1586, RA 6969, RA 8749, RA 9003, RA 9275, their respective implementing rules and regulations (IRRs), and other pertinent rules and regulations;

2) Identify significant environmental aspects and impacts of the establishment's operational activities and recommend possible mitigating measures in the formulation/preparation and/or review of the Environmental Management Plan and Contingency Plan:

3) Attend to all permitting and registration requirements of the establishment prior to the construction, installation. or operation of pollution sources and control facilities:

4) Ensure the proper performance. operation, and maintenance of environmental management facilities or systems of the establishment such as the following:

- Wastewater treatment facilities;
- Air pollution control devices referred to in DAO 2000-03,
- Hazardous waste management storage areas (permanent or temporary);
- Solid waste segregation/management facilities (i.e. MRFs: sanitary landfills. composting facilities, etc.); and
- Environmental monitoring devices such as the Continuous Emission Monitoring Systems, Air Monitoring Stations, effluent flow metering/measuring devices. groundwater monitoring wells, and other environmental monitoring devices.

5) Ensure that the hazardous wastes disposed offsite ace covered by a Permit to Transport; each transport is covered by a hazardous waste manifest duly signed by the transporter and TSD facility; and with corresponding Certificate of Treatment (COT) duly signed by the TSD facility. Copies of the signed hazardous waste manifest and COT shall be submitted to the concerned EMB Regional Office in accordance with DENR Adm. Or. No. 2004-36;

6) Ensure that transport vehicles are properly operated and maintained (applicable only for hazardous wastes transporter):

7) Ensure that hazardous wastes Treatment Storage and Disposal (TSD) facilities are properly operated and maintained (applicable only for hazardous wastes TSD facility);

8) Monitor compliance to the requirements specified in the Environmental Compliance Certificate and the commitments stipulated in the Environmental Management and Monitoring Plans or Environmental Performance Report and Management Plans. and report the same in the Compliance Monitoring Report (CMR);

9) Monitor activities pertaining to the installation or construction of pollution source and control facilities to ensure compliance with the National Emission Standards for Source Specific Air

Pollutants and National Ambient Air Quality Standards and report monitoring results to DENR as part of the Self-Monitoring Report (SMR);

10) Monitor activities pertaining to the operation and maintenance of pollution control facilities to ensure compliance with the Effluent Standards and report monitoring results to DENR as part of the SMR;

11) Monitor the use of chemicals, especially those listed under the Priority Chemicals List (PCL) and those with Chemical Control Orders (CCO) and the generation of solid and hazardous wastes. Monitoring data shall be submitted as part of the SMR and the PCI. Compliance Certificate;

12) Monitor the importation or distribution of chemicals, especially those listed under the PCL and those with CCO and the generation of solid and hazardous wastes. Monitoring data shall be submitted as part of the SMR and the PCL compliance Certificate (applicable only fur importers or distributors of chemicals);

13) Promptly submit CMRs and SMRs, duly accomplished and signed by the PCOs, approved and certified correct by the Managing Head, and notarized;

14) Report in writing within twenty-four (24) hours from the occurrence of any of the following environmental incident to the concerned EMB Regional Office, as the case may be:

- Breakdown of any pollution source and/or control facility or monitoring instruments: or
- Releases (e.g. leaks. spills, etc.) of chemicals or hazardous wastes (listed in Annex 1 of this Order as well as the Priority List of Hazardous Substances as published by the Agency for Toxic Substances and Disease Registry of the Department of Health & Human Services of the United States of America) to environmental media.

15) Report in writing withi11 twenty-four (24) hours from securing of the results of laboratory analysis or from online monitoring instruments any exceedance to effluent and/or emission standards;

The Report covering Items 14 and 15 above shall include the following:

- Date/time of the incident;
- Cause(s) of the incident; and
- description of the incident detailing the following:

- Estimated amount of chemicals or hazardous wastes, emissions, and/or effluents released to the receiving environment; and

- Interim/contingency measures to mitigate any potential negative impacts. The Managing Head shall sign the Report prepared by the PCO. Annex 4 shows the Environmental Incident Report format.

16) Submit to the Pollution Adjudication Board a copy of the SMR duly received by the respective EMB Regional Office (applicable only for establishments with pending case);

17) Attend, as duly authorized representative of the establishment, technical conferences. hearings, and meetings especially on matters pertaining to pollution cases of the establishment where he/she is employed:

18) As a liaison officer to EMB, keep himself/herself abreast with the requirements of the Department;

19) Coordinate regulatory programs, and activities with the city provincial/municipal governments (if applicable);

20) Initiate and intensify environmental management activities including awareness campaign within their organization; and

21) Participate in multi-partite monitoring team activities and meetings, where applicable. The PCO and the Managing Head shall be held jointly and severally liable for any violation of PD 1586, RA 6969. RA 8749, RA 9003, RA 9275, their respective IRRs, and other pertinent rules and regulations, committed by the establishment.



Republic of the Philippines Department of Environment and Natural Resources ENVIRONMENTAL MANAGEMENT BUREAU 10 DENR Compound, Macabalan,Cagayan de Oro City Website: http://www.r10.emb.gov.ph Telephone: (088) 856 – 9362

July 28, 2020

JOANNA MAY L. SUMBALAN Managing Head Bukidnon Second Electric Cooperative, Inc. Tankulan, Manolo Fortich, Bukidnon

Subject: Pollution Control Officer Accreditation

Dear Ms. Sumbalan:

This refers to the application for accreditation of Belinda B. Patulilic as the Pollution Control Officer for Bukidnon Second Electric Cooperative, Inc. located at Tankulan, Manolo Fortich, Bukidnon.

After satisfying the requirements of the said application, this Bureau has decided to grant the accreditation for the above-mentioned officer bearing the code 2020-PCO-1013-1677 (NEW), copy herewith attached.

The accreditation is valid for three years and should be renewed thirty (30) days prior to its expiration. The concerned pollution control officer is expected to perform the duties and responsibilities in accordance with Section 10 of DENR Administrative Order No. 2014-02, Revised Guidelines for Pollution Control Officer Accreditation. Non-compliance of the said conditions is ground for revocation or suspension of the accreditation.

Please be guided accordingly.

Very Truly Yours,

S. DIGAMO al Director



GRIEVANCE REDRESS MECHANISM

(BUSECO PV Mainstreaming Program - Window 2)

BUSECO will adopt a grievance redress mechanism (GRM) that enable affected beneficiaries to raise grievances or complaints with BUSECO and seek redress when they observe or notice an undesirable impact arising from the program. The Solar Business Unit head will facilitate the Grievance Redress Mechanism. This will capture all the concerns of beneficiaries and resolve effectively in fastest manner.

A. RESPONSIBILITY

1. BUSECO Responsibility

- a. Shall provide and ensure installation of the SHS package to the SHS Consumer to their households.
- b. Shall employ a labor contractor for the transport and installation of the SHS units from BUSECO warehouse to the SHS consumer household. Installations shall be done by properly trained and accredited electricians/technicians.
- c. Shall charge the SHS consumer a fix monthly rate, under Zone C item VI based on the approved tariff under the ERC Decision with ERC case no. 2015-106 RC, "In the Matter of the Petition for the Adoption of the Proposed Rules to Govern the Setting of Regulated Solar Home System Tariff for the Electricity for Rural Electrification by Electric Cooperatives"
- d. While BUSECO does not guarantee continuous electric service due to the nature of the solar system, BUSECO shall ensure replacement of defective parts to ensure functionality and operation after careful evaluation and assessment.
- e. Reserves the right to suspend thru confiscation or disconnection of SHS service to all SHS consumer without liability to BUSECO, for the damages caused by SHS consumer by improper used and/or additional accessory and load installed by the SHS consumer in his/her household premises.
- f. Shall provide the vending station in an identified location per barangay or per Sitio as the case maybe or so required within the specific area. The determination of the vending station shall be the number of the SHS consumer to be serve.

2. Solar Home System (SHS) Consumers Responsibility

- a. Shall all times comply the requirements of this guidelines and the electric service connection agreement.
- b. Shall safeguard the proper used, protection and upkeep of the SHS package while in service in their house premises.
- c. Shall report any defective and damage parts to BUSECO that will be subject for repair and/or replacement.
- d. Shall not transfer, used and lease the SHS package to any other house and/or dwelling.
- e. Shall load the SHS based on the approved tariff to ensure continue electric service to the system.



B. PAYMENT AND COLLECTION

- 1. **Payment Procedure** the mode of payment of the SHS consumer shall be thru a pre-paid system. SHS consumer shall load/pay to the nearest vending station using the provided e-card per SHS consumer.
- 2. Location of the Vending Station Solar Business Unit (SBU) shall identify, accredit and designate the location of the vending station per barangay or per sitio, based on the number of SHS consumer that it can accommodate.
- 3. Interim Vending Station the Barangay Member-Consumer Electrification Committee (BMCEC) collectors in the barangay where the sitio is located shall be the interim vending station for the SHS consumer and within one (1) year after the implementation of this project BMCEC collectors may choose to continue or not.
- 4. **Remittance of Cash Collection** the vending station shall remit the cash collection (on the due established by the cooperative) every 10th day of the month.

C. CONSUMER COMPLAINTS PROCEDURE

- 1. Solar Homes System consumer shall report their complaint/concern to the nearest local vending stations or through a common hotline number directed to Solar Business Unit Office.
- 2. Vending Agent shall ensure that complaint/concern is reported to SBU Office within a day.
- 3. SBU Consumer Services Staff shall prepare job order upon receipt of complaint/concern and shall endorse to SBU Engineer and/or Technician within 1 hour.
- 4. SBU Engineer and/or Technician shall execute job order or conduct the inspection at the site and resolve the concern of SHS consumer as promptly as possible within 24 hours from receipt of the complaint.
- 5. SBU Engineer and/or Technician shall prepare the report through a filled-up job order form and return to SBU Consumer Services Staff for updating purposes within 48 hours from receipt of the job order.

D. DISCONNECTION and SUSPENSION OF SOLAR HOME SYSTEM SERVICE

1. Right to Due Process Prior to Disconnection and Suspension of Electric Service

SHS consumers shall not be deprived of electric services without due process of law. Subject to the foregoing paragraph, disconnection and suspension of electric service shall only be made under the following circumstances:

- a. Inability to load the SHS based on the approved tariff (disconnection will then be automatic).
- b. Transferring, using and leasing the SHS package to any other house and/or dwelling
- c. Inability to safeguard, protect and upkeep of the SHS package while in service in their house premises which may result to damage to the property
- d. Upon lawful orders of government agencies and/or the courts
- e. When the public safety so requires



Branch Office: Malaybalay City, Bukidnon Mobile No.: 0998-843-8335 / 0935-114-2484

f. Request of the SHS consumers for justifiable reason

2. Right to a Notice Prior to Disconnection

A Notice of Disconnection (NOD) will be served to the SHS consumers 48 hours before such disconnection except for the inability of the SHS consumers to load the SHS based on the approved tariff. The Notice of Disconnection (NOD) shall indicate the name of the SHS consumer, the address, the account number and the reason for which the Notice of Disconnection is executed.

E. REPLACEMENT AND DISPOSAL PROCEDURE

- 1. Replacement of damage components will depend on the assessment and evaluation of SBU Engineer which is based on the actual site inspection. Components due for replacement are those items experienced malfunction, system failure and sustained physical damage or have been broken.
- 2. Assessment and evaluation will be reflected to the job order form, causes and responsible for the damage must be detailed accordingly. If replacement is due to manufacturer defect or equipment failure BUSECO will be responsible for the replacement, if other way around such as caused by physical damage, tampering and negligence by SHS consumers, terms on connection agreement and other applicable existing policy will prevail for the sanctions and penalties.
- 3. SBU Engineer shall withdraw a complete set of Solar Home System components to ensure availability of spare when responding a complaint so that when replacement is required concerns can easily be addressed.

F. PULL-OUT AND RE-INSTALLATION PROCEDURE

- 1. SBU Engineer and/or Technician shall execute the pull-out of Solar Home System Unit as per job order request within 48 hours. Basis of pull-out will depend on Disconnection and Suspension of Solar Home System Service.
- 2. After pull-out, SBU Engineer and/or Technician shall return the filled-up job order to SBU Consumer Staff for updating.
- 3. Pulled-out unit shall be returned to Warehouse by SBU Technician for safe keeping and recording. SBU Technician shall secure return slip of the returned unit.
- 4. Upon receipt of turn-on order and withdrawal slip from Application and Marketing, SBU Engineer and/or Technician shall withdraw the Solar Home System Unit to Warehouse and execute the installation within 24 hours upon receipt of turn-on order.
- 5. After turn-on, SBU Engineer and/or Technician shall return the filled-up turn-on order to SBU Consumer Staff for updating and the lists of solar home system beneficiaries must be updated accordingly.

G. OTHER CLAUSE

1. BUSECO through the SBU Unit shall exert the best effort to served and addressed the concerns of SHS beneficiaries. Also, the beneficiaries have its vital role to prevent failures if not minimize the complaints regarding the solar home system units by following properly the manuals or



instructions associated to the operation and also by taking care-of the of the solar home system units.

- 2. Should any provision or any part hereof be declared invalid or unconstitutional, the other provisions, so far as they are separable, shall remain in force.
- 3. Shall any SHS consumer concerns/complaints cannot be resolve by BUSECO, SHS consumers may brought the matters to NPC PMO or to any regulatory body of Electric Cooperative such as National Electrification Administration, Energy Regulatory Commission and/or Department of Energy.

Prepared by:

MIKERON N. FALLARCUNA, REE MSE Division Chief/ Project Monitoring Officer



Main Office: Manolo Fortich, Bukidnon Branch Office: Malaybalay City, Bukidnon Mobile No.: 0998-843-8334 / 0935-114-3095 Mobile No.: 0998-843-8335 / 0935-114-2484

CODE OF CONDUCT FOR PERSONNEL Photovoltaic Mainstreaming Program (PVM)

Bukidnon Second Electric Cooperative, Inc. (BUSECO)

This Code of Conduct identifies the behavior required from all personnel of Bukidnon Accredited Electrician Association Inc. (BAEA-Malaybalay) and Bukidnon Second Electric Accredited Electrician Association Inc. (BAEA-Manolo Fortich) working at the Bukidnon Second Electric Cooperative, Inc. (BUSECO) for the project Photovoltaic Mainstreaming Program (PVM).

Unsafe, offensive, abusive or violent behavior will not be tolerated and all persons should feel comfortable raising issues or concerns without fear of retaliation.

A. REQUIRED CONDUCT

All BAEA-Malaybalay and BAEA-Manolo Fortich personnel shall:

- Carry out his/her duties competently and diligently; 1.
- 2. Comply with this Code of Conduct and all applicable laws, regulations and other requirements, including requirements to protect the health, safety and well-being of other personnel and any other person;
- 3. Maintain a safe working environment by:
 - a. ensuring that workplaces, machinery, equipment and processes under each person's control are safe and without risk to health;
 - b. wearing required personal protective equipment;
 - c. using appropriate measures relating to chemical, physical and biological substances and agents: and
 - d. following applicable emergency operating procedures;
- 4. Report work situations that he/she believes are not safe or healthy and remove himself/herself from a work situation which he/she reasonably believes presents an imminent and serious danger to his/her life or health;
- Treat other people with respect, and not discriminate against specific groups such as 5. women, people with disabilities, migrant workers, indigenous people, or children;
- 6. Not engage in sexual harassment, i.e., unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature, with other BAEA-Malaybalay and BAEA-Manolo Fortich personnel, or NPC-PMO's/BUSECO personnel;
- 7. Not engage in sexual exploitation, or any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to: profiting monetarily, socially or politically from the sexual exploitation of another;
- 8. Not engage in sexual abuse, which means the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions;
- Not engage in any form of sexual activity with individuals under the age of 18, except in 9. case of pre-existing marriage;
- Not engage in any other form of harassment, mental or physical coercion, or verbal 10. abuse of its employees;
- Undergo relevant training or orientation that will be provided related to the environmental 11. and social aspects of the Contract, including on health and safety matters;
- 12. Report violations of this Code of Conduct; and



13. Not retaliate against any person who reports violations of this Code of Conduct, whether to us, the NPC-PMO, BUSECO or who makes use of the grievance redress mechanism for personnel or the project's Grievance Redress Mechanism.

B. RAISING OF CONCERNS

If any person observes a behavior that he/she believes may represent a violation of this Code of Conduct, or that otherwise concerns him/her, he/she should raise the issue promptly to:

EDWIN A. LAURON BAEA-Malaybalay President Sayre Highway Casisang, Malaybalay City

GLEN CABANEROS BAEA-Manolo Fortich President Tankulan, Manolo Fortich

MIKERON N. FALLARCUNA BUSECO Project Monitoring Officer BUSECO Main Office, Tankulan, Manolo Fortich, Bukidnon 09988438326

This can be done either in writing, by telephone, or in person. The person's identity will be kept confidential, unless reporting of allegations is mandated by the country law. Anonymous complaints or allegations may also be submitted and will be given all due and appropriate consideration. We take seriously all reports of possible misconduct and will investigate and take appropriate action. We will provide warm referrals to service providers that may help support the person who experienced the alleged incident, as appropriate.

C. SANCTIONS

Any employee who has breached this Code of Conduct will be subject to any of the following actions:

- Informal warning
- Formal warning
- · Loss of up to one week's salary
- Suspension of employment (without payment of salary), for a minimum period of 7 days up to a maximum of 30 days.
- Termination of employment
- Reporting to the police if warranted

D. ACKNOWLEGEMENT

I hereby acknowledge that I have read the Code of Conduct for Personnel of the BUSECO ASEP-PVM Window 2, agree to comply with the standards contained therein and understand my roles and responsibilities to prevent and respond to issues relating to environmental, social, health and safety, gender-based violence, sexual exploitation/abuse, harassment and discrimination. I understand that any action inconsistent with this Code of Conduct or failure to act as mandated by this Code of Conduct may result in disciplinary action and may affect my ongoing employment.



NAME OF PERSONNEL	SIGNATURE	DATE SIGNED

EDWIN A. LAURON

BAEA-Malaybalay Sayre Highway Casisang, Malaybalay City

Prepared by:

MIKERON N. FALLARCUNA BUSECO Project Monitoring Officer BUSECO Main Office, Tankulan, Manolo Fortich, Bukidnon 09988438326

GLEN CABANEROS

BAEA-Manolo Fortich Tankulan, Manolo Fortich



ATTACHMENT 1 TO THE CODE OF CONDUCT BEHAVIORS CONSTITUTING SEXUAL EXPLOITATION AND ABUSE (SEA) AND BEHAVIORS CONSTITUTING SEXUAL HARASSMENT (SH)

The following non-exhaustive list is intended to illustrate types of prohibited behaviors.

(1) Examples of sexual exploitation and abuse include, but are not limited to:

- Personnel tells a member of the community that he/she can get them jobs related to the work site (e.g. cooking and cleaning) in exchange for sex.
- Personnel that is connecting electricity input to households says that he can connect women headed households to the grid in exchange for sex.
- Personnel rapes, or otherwise sexually assaults a member of the community.
- Personnel denies a person access to the Site unless he/she performs a sexual favor.
- Personnel tells a person applying for employment under the Contract that he/she will only hire him/her if he/she has sex with him/her.

(2) Examples of sexual harassment in a work context

- Personnel comment on the appearance of another Installation Services Personnel (either positive or negative) and sexual desirability.
- Personnel complains about comments made by another Personnel on his/her appearance, the other Personnel comment that he/she is "asking for it" because of how he/she dresses.
- Unwelcome touching of a Personnel or Employer's Personnel by another Personnel.
- Personnel tells another Personnel that he/she will get him/her a salary raise, or promotion if he/she sends him/her naked photographs of himself/herself



MONITORING PLAN (BUSECO PV Mainstreaming Program - Window 2)

Project Phase	Parameter	Standards	Frequency of monitoring	Location	Responsible
Pre- installation Installation	Safety and Health	Personal protective equipment for Covid19 (masks, face shield, etc) are provided to field personnel, temperature checking and health survey are implemented	Daily, prior to field work	BUSECO Office	BUSECO's Safety Officer, SBU Head
Operation/ maintenance		EC-SBU & installers must wear personal protective equipment during SHS installation.	Random checking	SHS Sites	BUSECO's Safety Officer
Pre- installation Installation Operation/ maintenance	Violation of Code of Conduct	No report or complaint received for violation of Code of Conduct by EC- SBU or installers based on complaints/ grievance records	Monthly	SBU Office	SBU Head/ Grievance Officer
Operation and Maintenance	Resolution of Complaints on SHS malfunction	SHS consumer complaints/concerns responded to by EC-SBU personnel within 48 hours or less, based on complaints records	Monthly	SBU Office	SBU Head/ Grievance Officer
	Hazardous Waste Mgmt.	All used/defective batteries and other components are collected, stored properly in a storage facility and disposed of in accordance with regulations.**	Monthly	BUSECO Waste and Hazard Storage Facility	BUSECO's Pollution Control Officer
Installation	Solid Waste Disposal	Clean the site carefully and remove all generated waste materials upon completion of works. Wastes shall be collected and dispose properly in accordance to ESMP.	Random checking	SHS Sites	SBU Head, BUSECO's Pollution Control Officer

SBU – BUSECO Solar Business Unit

** Within the SHS warranty period, BUSECO will collect, store and return to the supplier the defective SHS components for replacement

Prepared by:

MIKERON N. FALLARCUNA, REE MSE Division Chief/ Project Monitoring Officer



MITIGATION COST (BUSECO PV Mainstreaming Program - Window 2)

For the Year 2021

No.	Description	Mitigation	Estimated Cost (Php)	Responsible
1	Safety and Health	Provisions of face mask, face shield, alcohol, sanitizers.	20,000.00	BUSECO Safety Officer
		Provision of personal protective equipment such as hard hat, safety gears, safety shoes and working gloves.	100,000.00	BUSECO Safety Officer
2	Hazardous Waste	Installation of Hazardous Waste Storage Facility	80,000.00	BUSECO's PCO & Managing Head
		Basic Pollution Control Officer's Training of Designated PCO	15,000.00	BUSECO's Pollution Control Officer
		Training for PCO's Managing Head	5,000.00	PCO's Manager
		Registration of BUSECO as Hazardous Waste Generator	1,040.00	BUSECO's Pollution Control Officer
		Collection and storage of defective solar panels, batteries and light bulbs through DENR-accredited firm*	50,000.00	BUSECO's Pollution Control Officer
	Total			

Note: Within the 3-year Supplier's warranty period, BUSECO will collect, store and return the defective SHS components to supplier for replacement. BUSECO will allocate funds for the disposal of used batteries/damaged components for 2023 onwards when these wastes would have been generated.

Prepared by:

MIKERON N. FALLAROUNA, REE MSE Division Chief/Project Monitoring Officer